

ANNUAL REPORT

JULY 2015



WAIKOLOA
DRY FOREST
INITIATIVE



OUR MISSION

Our mission is to preserve, protect and restore a native Hawaiian dry forest ecosystem through land management, outreach, education and grass roots advocacy. We manage a growing forest preserve in Waikoloa Village and are dedicated to restoring the lowland dry forest particular to this region. The preserve is home to several endemic and indigenous plant

species, including iconic trees such as the wiliwili and the uhiuhi. After many years of degradation, the remaining lowland dry forests of Hawai'i are only remnants of the thriving, diverse ecosystems of the past. Our goal is to bring the dryland forest of Waikoloa back to life through natural resource conservation, restoration, community education and participation.



PLANTING FOR OUR FUTURE

BEVERLY BRAND

President & Founder
Waikoloa Dry Forest Initiative

Aloha mai kākou,

I recently spoke at the Nahelehele Dry Forest Symposium. The theme was “Making a Difference”. The invitation to do so was a big surprise and a huge honor. Scary though, to speak to 200 people whom I admire so much. And then, on top of that, they gave *me* an award!

While I thought about my talk, I worried that I would be asked *why?* Why do I spend so much of my precious time doing all I can to help save and restore a 275 acre remnant dry forest in Waikoloa? I know *why* of course, but to put my feelings into words to share- that’s the hard part for me.

So I thought about it...

I feel powerless to help mitigate the devastating problems that humans have created for our Earth. We, as individuals, may not be able to stop the drilling for oil in the arctic or the burning of the rain forest but we can have a positive impact on our landscape right here at home.

It comes down to something our Executive Director, Jen Lawson, and advisor/volunteer Keala Knoche, said to me years ago when they first began volunteering at the preserve. They agreed that “this is doable.”

In the Waikoloa Dry Forest Preserve, Jen, her crew, and our awesome volunteers are working to restore a tiny bit of the once extensive closed canopy forest that existed from Mahukona to Kailua Kona, from the mountain tops to the sea. I’ve come to think of the preserve as a plant zoo where common, endangered and extinct (in the wild) species are going to naturally regenerate and the forest will live again. I even dare to hope for the return of the native birds, bats and insects.

I want everyone to know and love wiliwili and uhiuhi trees, the ‘ilima, ‘a’ali’i, pua kala, ‘ohai and other amazing species that we grow and plant in the preserve.

One of my favorite passages reads “*A society grows great when old men plant trees in whose shade they know they shall never sit*”.

Let’s get together and plant some trees.

PRESERVING WAIKOLOA DRY FOREST

The Waikoloa Dry Forest Initiative (WDFI) was started by community members who saw the importance, beauty and value of the native trees and forest in Waikoloa. They also saw that the forest was in trouble; it was disappearing rapidly and required intervention. Our founders began as advocates for the preservation of wiliwili trees and have become leaders in environmental stewardship and forest conservation in Hawai'i.

Today, WDFI manages the lone lowland dry forest preserve and restoration site in one of the largest ahupua'a on Hawai'i Island. We are also located in an area that has seen rapid development, deforestation, wildfire and accelerated erosion. We feel that it is our responsibility to improve the quality of the environment, build community interest, influence land owners to practice better land stewardship and restore the forest for the educational, recreational and ecological services that it provides to our community. We are setting an example of what good stewardship looks like, and what it can do for the people of Hawai'i.

Since our boots hit the ground in 2005, we have been successful in protecting nearly 300 acres of remnant dry forest from feral animals, mitigated fire risks and, with the support of our local community, we have implemented an ambitious plan to reforest and restore ecosystem function to the area. We are building a community around the forest preserve and bringing conservation to the forefront in Waikoloa Village.

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has."

-Margaret Mead

Our belief that education is a critical component to long term sustainability and preservation of natural resources commits us to providing inspiring, educational experiences in the preserve and alongside our work. The need for preserving and planting native forest in Waikoloa is urgent, and is of significant benefit to the natural resources as well as the village near the preserve. We are so grateful for the support of our community, volunteers and funders. Together we can help the once abundant and diverse native dryland forest in Waikoloa live and thrive again.

PROGRAMS THAT MATTER

As a small organization with big goals, and much work ahead of us, we rely on our passionate volunteers and generous funders. We take these endorsements of our work, and commitments to our mission seriously. Every hour worked makes a meaningful difference in the preserve and every dollar donated directly impacts our programs. We make it count.

CONSERVATION

Protecting and restoring 275 acres of lowland dry forest

OUTREACH AND ADVOCACY

Inspiring community members to get involved in the forest

EDUCATION

Providing experiential learning opportunities for children and adults

RESTORING A FOREST

BUILDING A COMMUNITY

THRIVING NATIVE FOREST

Tropical dryland forests once dominated the leeward sides of all of the Hawaiian Islands. These forests had incredible floral diversity and were important habitat for many native creatures. Restoration of the unique dryland forest in the lowlands of Waikoloa continues to be the primary goal of the Waikoloa Dry Forest Initiative. Our efforts to reforest Waikoloa have been progressing steadily since 2011 when the perimeter fence that protects the 275 acre preserve was completed. Our work includes protecting the ancient trees that persist in Waikoloa, mitigating the threats to the preserve and surrounding areas, managing non-native grasslands and replacing them with the native forest community that is natural to the area. Restoration work in Waikoloa is challenging. The terrain is rough and the weather can be extreme but the native trees are persistent and they inspire us to continue to protect and restore this important forest.





HO'ŌLA HOU TO LIVE AGAIN



COMBINING CONSERVATION AND COMMUNITY

The Ho'ōla Hou project was initiated in an effort to bring the dryland forest of Waikoloa back to life through natural resource management, community education and participation. We have always believed that community involvement would be essential to the success of the Waikoloa Dry Forest Preserve and for the future and sustainability of our forest. Our community provides our small group with the helping hands that are necessary to achieve our land management goals. Many that participate also believe deeply in our work and carry our message into other aspects of their lives. Providing children and adults opportunities to experience, connect and learn from the dryland forest gives them a sense of ownership and responsibility that we hope will translate into a healthier natural environment and better land stewardship. Ho'ōla Hou represents the two major aspects of our work; land management and education.

The Ho'ōla Hou project has helped us to increase our restoration areas by also allowing us to grow our network of volunteers. With the help of our community we have been able to protect more forest and plant more trees.



LAND MANAGEMENT BY THE NUMBERS

Our small staff, supported by hundreds of volunteers, is producing results.

2015

Management Practices	Quantity
Native plants planted	3,000
Area planted/seeded	15 acres
Fuel breaks maintained	35 acres/6 miles
Trails built	4,000 ft
Wiliwili seeds collected	> 6,000
Weeds controlled	35 acres

CONTRIBUTORS

We extend our sincerest gratitude to those who have helped make the Ho'ōla Hou project a reality.

DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
HAWAI'I TOURISM AUTHORITY
COOKE FOUNDATION LTD.
HAWAI'I WILDFIRE MANAGEMENT ORGANIZATION
VANCE WALL FOUNDATION



JESSICA MIDDLETON FOREST RESTORATION TECHNICIAN

Jess joined WDFI in March of 2014 to help implement the Ho'ōla Hou Project. Jess has experience in natural resources management, a passion for native plants and conservation and a deep interest in Hawaiian culture and history. She is hard-working and energetic no matter the task: whether it is weed whacking fountain grass, building trail or propagating native plants. Jess is an enthusiastic educator and leader in the forest and many of our island youth have had the chance to learn about wiliwili trees and other interesting plants from "Aunty Jess". Jess is an asset to our team and we are grateful to our funders and supporters of the Ho'ōla Hou project that keep her position funded, we couldn't do it without her.



PROTECTING OUR FOREST

Waikoloa is situated in an area that was once covered in forest; trees, shrubs and ground-covers that provided habitat to many native Hawaiian creatures. Today, there are only remnant patches of native forest situated within vast expanses of non-native grassland.

For more than a century the land in Waikoloa has been impacted by feral ungulates, wildfire and invasive plants. As land managers, mitigating these threats is an important step toward forest restoration. The perimeter fence has been effective in preventing goats from entering the preserve and damaging the native plants. As a result we see increased regeneration from the native seed bank. This year, we saw widespread regeneration of eight native species. We also expanded our fenced area to include three previously unprotected uhiuhi trees and one wiliwili tree. These

trees are now protected from bark stripping and browsing by goats. Successful exclusion of goats means that we can focus our efforts on other major threats such as wildfire prevention and preparation. In addition to fuelbreaks, our staff also created and maintained fuel free buffers around all of the uhiuhi trees and many of the wiliwili trees within the preserve. These buffers are the last line of defense for the trees in the event of a wildfire and will prevent the fire from burning the trees. Our fuels reduction work gives us confidence that the preserve will be protected in the event of a fire.



PARTNERING TO PREVENT WILDFIRE

PREPARING OUR COMMUNITY

Our partnership with Hawai'i Wildfire Management Organization (HWMO) has helped us to better protect the forest preserve from fire. With funding and guidance from HWMO, we have created and maintained fire breaks and fuel-free buffers around our trees. We are also in the planning stages of installing a helicopter dip-tank to aid in fire suppression in the event of a nearby fire. Working together has also helped better prepare our community for future wildfires and linked the native dryland forest plants with smarter, safer, fire-wise landscaping.

PLANTING THE FUTURE

The reward for our hard work excluding feral animals, protecting the preserve from fire and managing weeds and invasive pests is that there is now a sanctuary for native plants. This includes the natural regeneration of the persistent native species as well as the 35 plant species that we are sowing, growing and reintroducing to the preserve.

Waikoloa was once forested with many different tree species. As we rebuild the community of plants that make up the dryland forest, it is important for us to collect seeds from Waikoloa, but also to look outside for the seeds that will grow the trees of our future forest. Our nursery collection represents regional populations of many important common species such as 'a'ali'i (*Dodonaea viscosa*) and 'āweoweo (*Chenopodium oahuense*) as well as our keystone species wiliwili (*Erythrina sandwicensis*). Some of the rare plants that we work with only occur in single populations, some with fewer than ten wild plants. The Waikoloa Dry Forest preserve provides refuge for these rare plants and expands the range and abundance of the native plants that we work with. In the past year we have grown more than 3,000 native plants in our onsite nursery. Of these plants, about 25% are rare endangered species while the other 75% are common species important for rebuilding habitat and forest. The plants produced onsite are important for restoration work and also for educating our community about the native plants and growing techniques in the forest. Often the seeds are sown by children and volunteers that visit the site. This provides hands-on native plant education and empowers people to grow their own native plants. In the last year we have planted these trees over six acres and established



native plants through seed broadcasting methods on fourteen acres. This brings our restoration area to a total of 30 acres planted since 2011. In these areas we see an encouraging survival rate which varies between 80-92% one year after planting. Many of these plants are not only surviving; they are flowering and producing their own seeds and seedlings.

As we expand our forest restoration areas, and plant more trees, we are beginning to see a glimpse of the future forest. There is already a dramatic difference between the non-native grassland outside the preserve gates and the flourishing native forest plants inside the preserve. They are growing, flowering, producing seeds and steadily reconstructing the native forest.



EXPERIENCE THE OUTDOOR CLASSROOM



LEARNING IN PLACE

Education is an important part of our work and vital to the long term sustainability of the preserve, our programs and our island environment. In the past year we have seen an enormous increase in the number of people that show interest in the dry forest and make visits to tour or volunteer in the preserve. We are encouraged by the response of our community to our restoration work. As we plant a forest we are also growing a community of supporters.

Our programs reach thousands of people every year. This year we provided educational tours and field trips to students from around the island, state and country as well as some international students. Many of the students that have visited the preserve had never seen a wiliwili tree or been in a Hawaiian dryland forest. These experiences expose students to the natural history of the island and the species that comprise the important dryland forest communities. They also reveal connections between ecology, Hawaiian culture and everyday life. Over the course of the year we have hosted 400 students and teachers at the forest preserve and we hope that the forest and our work has left a lasting impression on them.

"Hawai'i Outdoors Institute hosts Waldorf schools from around the country and brings them to the WDFI for experiential learning. The forest provides an invaluable opportunity for our students to connect with the land and each other. Word has spread amongst the tight-knit Waldorf community about the good work being done there. They consider it a joy to contribute to something bigger than themselves. Many Waldorf hands have helped restore the forest which strengthens their community, and ours!"

Greg Seivert
Executive Director
Hawaii Outdoors Institute

VOLUNTEER PROGRAM

Our volunteer program provides community members with opportunities to experience, learn and participate in dryland forest restoration. Collecting seeds, pulling weeds or planting trees with our staff can be educational and rewarding. Participants have the opportunity to explore the preserve, take photos, make new friends and connect to the forest. Many of our volunteers are from Waikoloa Village, but others come from neighboring towns and islands. Some vacationers even decide to spend time giving back to the forest while visiting the island. Volunteers are critical to our efforts in Waikoloa; in the past year they have contributed more than 2500 hours to WDFI and the forest preserve. With an average of 49 hours per week, volunteers provide more service than a full time technician. As a small staff this is of incredible value to us. Interest in our volunteer program has grown quickly; we saw more volunteers and visitors in the preserve last year than ever before. The sustained interest in the project and providing service in the forest demonstrates the importance of the preserve in the community and the desire for our community to participate in environmental stewardship.

1500+
VISITORS AND VOLUNTEERS

2583
SERVICE HOURS



UNIVERSITY OF IDAHO, INDIGENOUS CULTURE AND ECOLOGY CLASS

“Our class explores the intersection of traditional and contemporary Native cultures and their relationship with ecology. The Waikoloa Dry Forest Initiative provides an opportunity to discover the importance of the restorative component of this connection as well as lessons on ethnobotanical history. On each of our two visits, the students have transformed their impressions of what appears to be a dry, harsh, and sparsely vegetated area to one that is inspiring, biologically diverse, and a culturally rich dry forest. Jen Lawson and her volunteers have done a tremendous job transforming the landscape. Their work ethic shows their dedication for what they do and our students see and understand this—a perfect living, working example for college students. We truly appreciate the work this Initiative does, and we appreciate being a part of it.”

Jeremiah R Pinto, PhD

USDA Forest Service, Rocky Mountain Research Station, Research Plant Physiologist. University of Idaho, Forest, Rangeland, and Fire Sciences, Affiliate Professor

Anthony S Davis, PhD

University of Idaho, Forest, Rangeland, and Fire Sciences, Department Head and Associate Professor

FUTURE FORESTERS

YEAR FIVE

The Waikoloa Future Foresters is a unique program that brings children ages 8-16 into the forest to learn and explore. The program runs throughout the school year and is open to children from public, private and home-based schools.



Our founding members envisioned a program for local children that would take them into the forest for experiential and joyful learning. The Future Foresters has evolved over the years into a field based program with a dynamic lesson plan. We focus on native Hawaiian dry forest and our lessons are based on sciences, culture, conservation, stewardship, arts and traditional Hawaiian crafts. Each year we grow and host new children but almost all of our original Future Foresters are still active in the forest in some way. The Future Foresters can identify native plants and collect valuable data in the field. They learn environmental science and natural history and they have lots of fun in the forest. But perhaps more importantly, they absorb the culture and value of our native forest by actually experiencing it for themselves, by connecting to place.

"The Future Foresters are helping the future of the dry forest. It is a beautiful place to learn and build relationships, and my family thinks so too. "

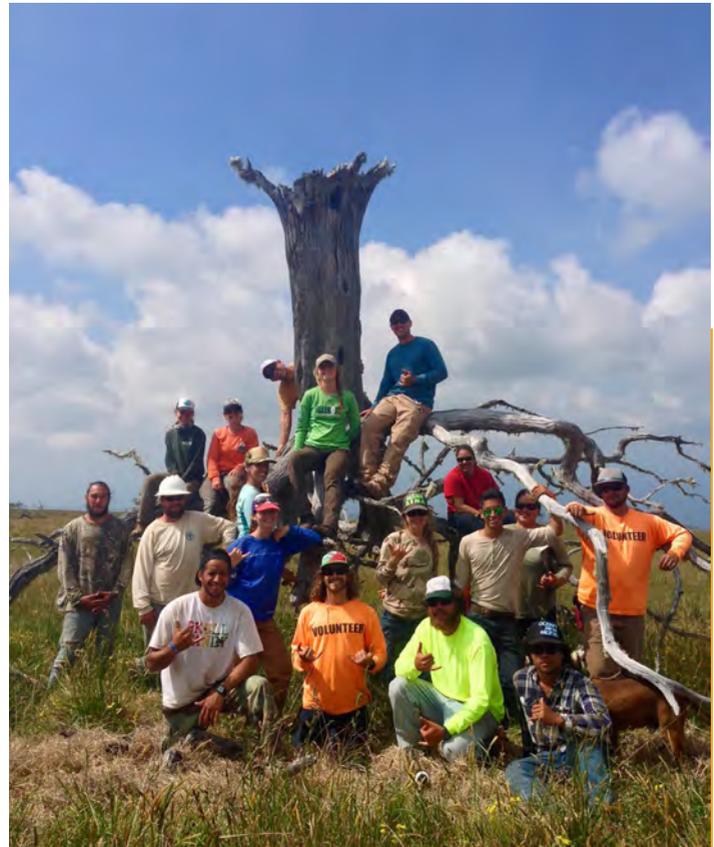
Sai Cordiero
Future Forester, Age 13



WORKING TOGETHER

INTERNSHIPS AT WDFI

This year WDFI was able to provide paid internships to two exceptional students including Christina Harden, an undergraduate student from Cornell University. Integrating classroom knowledge with practical field experience, the goal of the internship program is to create a unique learning experience and exposure to conservation issues in the Waikoloa area and the wider Hawai'i community. Working side by side with experienced conservation professionals provides our interns with a firsthand look at ecosystem restoration as well as non-profit management. Exposure to public outreach, fundraising, and event planning offers a unique perspective on the WDFI mission. This, in combination with assisting with the preserve's maintenance, plant propagation, and volunteer group coordination, provides the intern with a truly unique experience and skillset. The internship program is a valuable asset to the preserve, allowing WDFI to take on larger projects, spend more focused time with volunteer groups, and make a greater positive impact in the Waikoloa area.



DRY FOREST HUI O HANA

WDFI is a founding member of the Dry Forest Hui o Hana. The hui is a unique group made up of federal, state and non-profit groups that are working in west Hawai'i, mauka and makai, to conserve cultural and natural resources. Our group represents Waikoloa Dry Forest, Pu'u Wa'awa'a Forest Reserve, Ka'upulehu Dryland Forest, The Nature Conservancy Marine Program at Kiholo Bay, Mauna Kea Forest Restoration Project and Kaloko Honokohau National Historical Park. We pool our resources, expertise and energy once a month and make sizeable progress toward the management goals unique to each site. This partnership improves communication between agencies and helps managers stay on top of current issues, policies, threats, research and conservation priorities. Our hui represents an unusual, but highly effective, collaboration between conservation agencies and we look forward to another year of working together to conserve Hawaii's natural resources and integrate our various communities.

WILIWILI FESTIVAL

The 2014 Wiliwili Festival was a great success. It was the first festival held at the Waikoloa Stables in many years and we were happy to reinvigorate it with a day of festivities and forest education. This year we had record attendance and vendor participation. We also ramped up the festival by offering forest preserve tours to seventy lucky participants. These tours gave guests an opportunity to learn about the forest and interact with natural resource managers, biologists and practitioners. The festival also helped us reach a new audience. Not to mention it was wiliwili fun!



MAHALO TO THE 2014 WILIWILI FESTIVAL SPONSORS

HAWAI'I WATER SERVICE COMPANY
KAULUNANI URBAN AND COMMUNITY FORESTRY PROGRAM
HAWAI'I FOREST & TRAIL
WAIKOLOA HIGHLANDS CHEVRON
HAWAIIAN DREAM PROPERTIES
GOODFELLOW BROTHERS
ISLAND LAVA JAVA & FIRST HAWAIIAN BANK

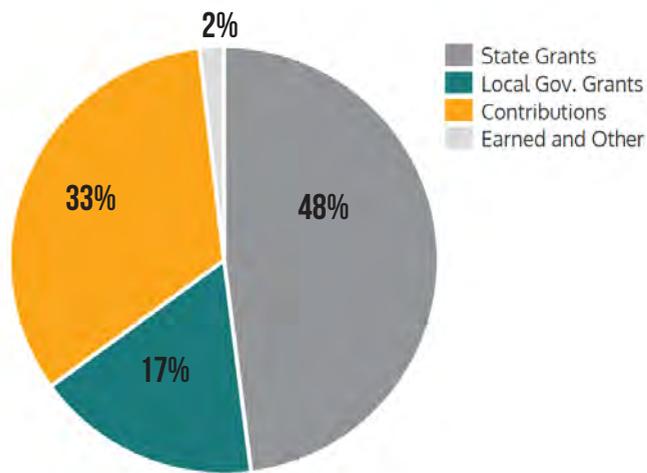


FINANCIALS

JULY 1, 2015- JUNE 30, 2015

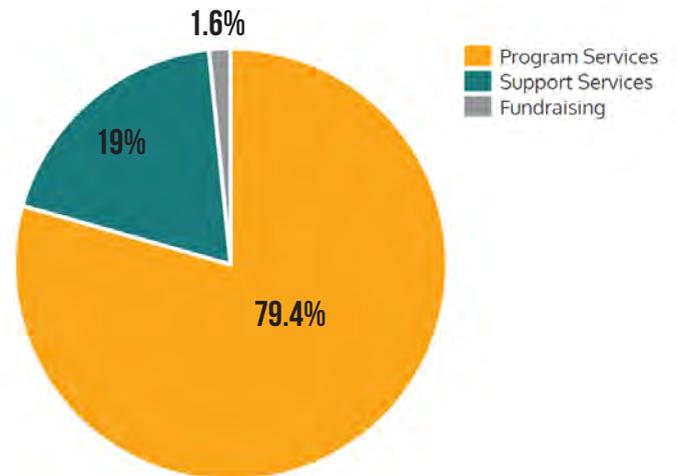
SUPPORT AND REVENUE

State Grants	\$56,454
Local Grants	\$20,000
Contributions	\$39,036
Earned and Other	\$2,159
TOTAL Support	\$117,649



EXPENSES

Program Services	\$87,111
Support Services	\$23,864
Fundraising	\$3,121
TOTAL Expense	\$114,096



BALANCE SHEET

Total Assets	\$27,356
Total Liabilities	\$7,194
Unrestricted Net Assets	\$9,290
Total Equity	\$20,162
Total Liabilities and Equity	\$27,356



BOARD OF DIRECTORS

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JEN LAWSON
EXECUTIVE DIRECTOR

JESSICA MIDDLETON
FOREST RESTORATION TECHNICIAN

CHRISTINA HARDEN
SEASONAL TECHNICIAN

NOTABLE VOLUNTEERS

KEALAKA'I KNOCHE

For the past three years we have been able to count on Kealaka'i. Advisor, fence builder, mechanic, sawyer, irrigation specialist, carpenter, driver, camp counselor, tour guide, fundraiser, the list goes on and on. Kealaka'i is a valuable asset, dedicated to WDFI and our efforts.

ALBERT RICH

Albert began working with us this year and has become one of our most dedicated volunteers. He works tirelessly in the preserve every week. His dependable volunteer service has made a huge impact on the preserve and what we are able to achieve as a small staff.

EMILY RISLEY

Emily was involved in our Future Foresters program for three years before joining our staff as a high school intern this year. Emily used this opportunity to conduct vegetation monitoring for WDFI while learning data collection and analysis techniques. She will be attending UH Hilo in the fall.

PHOTO CREDIT

JOSHUA MCCULLOUGH PHYTOPHOTO

Josh has generously donated his work to our annual report and other publications throughout the year. His images can be found on the cover as well as pages 1,4,5,6,7,8,10, 16, 17 and 18. www.phytophoto.com



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