



Organization

The Hanalei River Heritage Foundation is an Hawai'i-based non-profit organization (NPO). Founded in 2009, HRHF is dedicated to the preservation of Hawai'i's coral reefs, protection of native species, supporting positive watershed and marine eco-systems for sea life and humans, restoring the Biology and Biota and bio-remediating selected properties and projects throughout the Hawaiian Islands, marine-based education (K through University level) and community-based environmental programs.

One of the Foundation's goals is to provide facilities and programs for youth from the Hawaiian Islands and outside of Hawai'i to learn ocean skills, safety, canoe and wayfaring knowledge, archeoastronomy, marine biology, and the inter-relationship of the Hawaiian Ahupuaa with modern life. We want to provide opportunity for students to be actively involved with their environment; to observe to the environmental consequences of human actions as well as offer them opportunity to participate in finding ways to minimize the negative effects. We are working on a school curriculum for interested schools/teachers including a teacher training program.

The Department of Land and Natural Resources (DLNR), the County of Kaua'i, the Environmental Protection Agency (EPA), and the US Fish and Wildlife Service have used our underwater research and education to benefit their regulatory compliance for the County of Kaua'i.

The public in Kaua'i and across the Hawaiian Island chain has been educated by our research via the internet through our educational blog Underwater2Web (<http://terrylilley.wordpress.com>), as well as through numerous newspaper, radio and television features on our work including: *The Garden Island Newspaper*, *The Honolulu Advisor*, *Mid-Week Magazine*, KKCR, KHON, KGMB and CNN.

Problem

The health of the Hawaiian Islands' marine environment has been steadily declining due to rising sea levels, saltwater intrusion, sediment run-off, development (permitted and otherwise), bacterial growth and pollution.

Our rivers, bays and surrounding waters are not efficiently studied nor effectively safeguarded. The general public is unaware of some the problems we are presently facing because there is limited real-time information and comprehensible long-term studies.

Opportunity

We believe that the best way to create awareness both locally and globally is to start with our schoolchildren and get them actively educated and involved.

HRHF's long-term goal is to develop a program of coastal research, education and preservation that can be used as a model to help other tropical island communities facing similar environmental challenges worldwide.

We are initiating this effort by creating a program that embraces school kids in the process. This includes 1) monitoring the local marine environments above and below the surf 2) producing marine-science articles and HD educational videos and movies 3) getting the videos and movies (as well as our staff biologist Terry Lilley) into classrooms throughout Hawai'i. We are also utilizing the Internet to make the articles and videos available to the general public.

Currently, schools throughout the Hawaiian Islands, from first graders at Kaua'i Pacific School to the marine biology classes at the University of Hawai'i, are utilizing our ongoing underwater research and educational blog. All schools in the Hawaiian Islands can greatly benefit from this project. The Hanalei River Heritage Foundation is looking for funding sources in order to continue and grow our efforts and get our program and videos to more Hawai'i schools. Utilizing as many avenues as possible, we want our work to be available to anyone who is interested, from the local communities to proper governmental agencies that can initiate necessary changes.

Activities

An important aspect of our program involves giving students an opportunity to go out in the ocean and observe our local marine life, reef and surf with an expert biologist.

Our school educational program takes students out on a boat, gives them an opportunity to snorkel/dive and utilize the HD video cameras to capture their experience, while teaching them about the marine eco-system.

Students can also learn to take water samples and conduct observational research and document the environment by utilizing High Definition underwater cameras. This will include documenting coral reef bleaching, invasive species, the negative effects to coral reefs due to numerous issues: land-based pollution, run-off and sedimentation.

These field trips have already been very successful. A sampling of this can be viewed

on our educational blog, where we feature students involved in this program: snorkeling, identifying marine life, taking and editing video, and producing a movie to take home to share with their friends and family in order to pass on the knowledge they've acquired about the underwater marine environment in Hawai'i.

On a weekly basis we upload in real time topical videos or features that include student videos, local marine developments, environmental issues, local surf highlights (featuring imagery above and below the surf, from the sea life to how waves are formed differently because of the sea floor), as well as video that simply exposes the rarely seen natural beauty that is underwater in Hawai'i.

Included in the focus will be the historical Hawaiian perspective on marine ecosystems (including learning the Hawaiian names for the marine life, etc.) and the cultural relationship with the sea and preservation of our natural resources.

Expected Result

In the past, scientific information has been seriously delayed in reaching the public. Our real-time, observational research is broadcast weekly for everyone who wants to learn about our underwater eco-system.

Video data serves as record of current conditions and can provide comparative analysis. Viewing old to new footage gives us insights regarding the altering state of the reefs and marine life in varying locations and depths (all our footage has date/time stamp and GPS). Fisheries management cannot happen if we are not aware of the populations and habitat. This cutting edge approach can be utilized and implemented in many diverse digital applications and dispersed to any interested parties and helps proper agencies to decide if protection is necessary.

Tourists travel to Hawai'i to enjoy our beautiful beaches and reefs; if our colorful native reef fish die off we will all suffer the financial and ecological consequences. Any surveying done will be conducted using the guidelines created by Reef Check, which are approved of by the United Nations. Our staff biologist Terry Lilley is a certified Reef Check diver having completed extensive training to get his degree; he is one of only a few on Kaua'i.

All of this information, readily available online, can be utilized in classrooms throughout Hawai'i and beyond. We will also provide free movie showings in Hanalei so the community can come out and have a forum to view and discuss the work; ask questions and get involved. If we get enough support we hope to be able to create longer movies, documentaries and perhaps create a program for local public television. We also hope to introduce live-video classes/presentations to allow a larger number of University students, including outer-island classrooms with more limited resources, to participate.

Ultimately, we are creating an historical record that can bring awareness to policy-making agencies, the fishing community, environmental groups and the public so we can all make good decisions in the future about how to deal with our ever-changing ocean ecosystem.

Surprisingly, in Hawai'i there are very few people studying the health of our marine life and reefs on a daily basis. Ongoing documentation supplied freely to schools, the public and public officials can help people make better decisions about preserving our oceans.

By incorporating the students in our underwater research program, it gives the students ownership and excitement about doing underwater studies. Coupled with research and first-hand observation they can come up with their own conclusions. Inevitably they may choose to become actively involved in helping to educate the public and government agencies about issues effecting our marine environment. Students who learn to study the sea at a young age will be better equipped to go on to higher education and be more involved in the future of environmental management. Providing these types of skills and opportunity for kids to participate in this program gives options to those who might otherwise turn to non-productive extracurricular activities.

PROJECTED ANNUAL BUDGET 2011

ANTICIPATED INCOME

Private Donors, Varying Sources: \$25,000 (pending)

Grant Funding: \$283,900

OVERALL EXPENSES:

PERSONNEL

Lead Diver, Biologist, Videographer Terry Lilley \$45,000

Video Editor, Videographer, Writer, Blog, Art Director Wilkie McClaren \$45,000

Hawaiian Cultural Expert Rubellite Johnson \$45,000

Environmental Activist, Waterman, Spokesperson Bill Hamilton \$15,000

Assistant Diver \$15,000

Assistant Tech \$20,000

Live Video-Class Tech \$5,000

Assistant Teacher \$15,000

Social Media Marketing (Facebook, Twitter, etc.) \$15,000

Writer, editor, proof reader (web, publications, school materials) Digna Morataya \$15,000

Web Designer, Updates/Maintenance \$15,000

Sub Total: \$245,000

EQUIPMENT AND SUPPLIES

Cannon digital/video camera, underwater housing, lighting \$13,000

Contour Video Cameras HD, surf mount, flash cards (3) \$3,000

Bluewater Scooter Cam \$6,500

Computers, monitors, hard drives, programs \$15,000

Internet service, Verizon wireless routers, Apple Airport, modem \$950

DVD replicator \$1,000

First-run DVD replication (1,000 units) \$1,500

HD DVD Projector (Public Movie Showings) \$800

Optoma Pocket Projector (Classroom presentations) \$450

Large Projection Screen (cost to be determined)

Focal Professional Speakers \$1,000

Headphones \$150

Office supplies \$1,000

Diving air compressor \$4,400

Classroom Hand-Outs/Materials \$5,000

Miscellaneous supplies \$1,500

Dive equipment \$5,000

Snorkel gear (20 kids, 3 adults); **Swish Eco-Shorty** (1), **Shorty Wetsuits** (20) \$3,250

Water Sampling Kits (cost to be determined)

Detailed Water and Soil Sampling (cost to be determined)

Ciguatera Research (cost to be determined)

Sub Total: \$63,400

OTHER

Insurance \$5,000

Travel and Vehicle Expenses \$17,500

Sub Total: \$10,500

Total Expenses: \$335,900

IN-KIND CONTRIBUTIONS

Hanalei Boat House / Marine Education Facility

Mac Book (1)

Mac Monitor (1)

Office Printer (2)

Small projection screen

Current Underwater Studies

Over 2,000 hours of unique, quality **underwater HD video clips**

Thousands of **Underwater Photos**

Educational Underwater Movies and Videos

Established Online Presence through Terry Lilley's Underwater2Web

Blog, Facebook, Twitter, SmugMug photo store

Sony HDV Camera and Underwater Housing (1)

Boat and boat upkeep

GPS

Dive gear

Mailing list and contact info

200+ news and TV articles / media contacts

Volunteered assistance from Reef Check, Eyes on the Reef, Dive Shops, local SCUBA divers and spear fishermen

**PROJECTED EDUCATION PROJECT BUDGET
BUDGET FOR WHICH THE ATHERTON GRANT WILL BE USED**

PERSONNEL

Lead Diver, Biologist, Videographer Terry Lilley \$45,000
Video Editor, Videographer, Writer, Blog, Art Director Wilkie McClaren \$45,000
Hawaiian Cultural Expert Rubellite Johnson \$45,000
Environmental Activist, Waterman, Spokesperson Bill Hamilton \$5,000
Assistant Diver/Tech \$15,000
Assistant Teacher \$15,000
Live Video-Class Tech \$5,000
Social Media Marketing (Facebook, Twitter, etc.) \$15,000
Writer, editor, proof reader (web, publications, school materials) Digna Morataya \$10,000
Web Designer, Updates/Maintenance \$15,000

Sub Total: \$215,000

EQUIPMENT AND SUPPLIES

Cannon digital/video camera, underwater housing, lighting \$13,000
Contour Video Cameras HD, surf mount, flash cards (3) \$3,000
Bluewater Scooter Cam \$6,500
Computers, monitors, hard drives, programs \$15,000
Internet service, Verizon wireless routers, Apple Airport, modem \$950
DVD replicator \$1,000
First-run DVD replication (1,000 units) \$1,500
HD DVD Projector (Public Movie Showings) \$800
Large Projection Screen (cost to be determined)
Optoma Pocket Projector (Classroom presentations) \$450
Focal Professional Speakers \$1,000
Headphones \$150
Office supplies \$1,000
Diving air compressor \$4,400
Classroom Hand-Outs/Materials \$5,000
Miscellaneous supplies \$1,500
Dive equipment \$5,000
Snorkel gear (20 kids, 3 adults); **Swish Eco-Shorty** (1), **Shorty Wetsuits** (20) \$3,250
Water Sampling Kits (cost to be determined)

Sub Total: \$63,400

OTHER

Insurance \$5,000
Travel and Vehicle Expenses \$5,500
Sub Total: \$10,500

Total Expenses: \$288,900

BOARD OF DIRECTORS

Michael Sheehan Director

Rubellite Kawena Johnson née Kinney Director

Bill Hamilton Director

ADVISORS

Terry Lilley Biologist, Documentarian

Wilkie McClaren Editor, Writer, Video Editor, Media Technician, Art Director

Jim Law Assistant Project Coordinator, Filmmaker, Marketing Director

GENERAL LEGAL COUNCIL

Allen Hoe

Richard Wilson

BIOGRAPHIES

Michael Sheehan is a local businessman; Punahou graduate; attended Menlo School of Business, University of Hawai'i, and Hawai'i Pacific U. He's a former police officer and founder of Hale Opio, a facility for children at risk on Kauai. A member of U.S. Coast Guard Auxiliary on Kauai, Sheehan works with numerous community groups and organizations, and is excited to be part of this Foundation to improve the health of the ocean and rivers of Hanalei and Kauai.

Rubellite Johnson is a retired Emeritus Professor in the Hawaiian Department of Indo-Pacific Languages at the University of Hawai'i as well as a Hawaiian Advisor to the Institute of Japanese-Hawaiian Names at the Waikiki Trade Center and Kawanānakoā Foundation. She is an expert in Anthropology, the history of the Hawaiian language and oral Hawaiian folklore. She has an extensive background in community service worldwide. Johnson was a guest lecturer at the Smithsonian Institute on the subject of Ancient Hawai'i's Ritual Calendar and has taught throughout England, New Zealand, Polynesia and the U.S. She currently teaches Hawaiian studies in both Hawaiian and English.

Contact: 808-545-3844 or rubellitej@yahoo.com

Terry Lilley is the staff biologist and researcher. Lilley has studied marine life for over 15 years and has spent thousands of hours scuba diving, fishing, surfing and kayaking in and around Hawaiian waters. He devotes most of his time studying Hawai'i's near-shore marine life. He has accumulated over 500 hours of underwater marine life filming in Hawai'i, California, Fiji, Belize and Mexico, concentrating on habitat, feeding, movements and breeding behavior. Terry helps The University of Hawai'i in Manoa with ciguatera research as well as cleaning the reefs from invasive species. Terry has also

given many guest lectures to our Hawaiian schools and has done over 100 news and TV shows about our marine environment.

Contact: 805-441-2206 or underwater2web@gmail.com

Website: <http://terrylilley.wordpress.com>

Wilkie McClaren McClaren has extensive experience as a writer (*LA Times* to *Vanity Fair*), editor, art director, magazine publisher, designer and creator of media projects from magazines to TV shows. She has had two books published (Little, Brown and Pinnacle Books) with more in the works and is currently working on a documentary about the health of Hanalei Bay. She also produces the popular Hawai'i surfer girl web site CoconutGirlWireless. McClaren provides the HRHF with blog writing/maintenance, videography, movie editing, musical scoring, art direction, design, production, packaging, and social media needs for our ongoing educational projects.

Contact: 808-936-1947 or amplesurf@mac.com

Website: <http://coconutgirlwireless.wordpress.com>

Jim Law utilizes his skills as a seasoned business owner/manager and documentary filmmaker, AS degree/Environmental Horticulture, 19 years owner of design/build Landscape Architecture firm, 45 years diving experience, Treasure Diver in the Florida Keys, Saltwater Tropical Fish (Atlantic species) business owner, published author of two books, airplane pilot (licensed as private), seasoned boat operator up to 74ft. His multi-faceted talents are of great benefit to the Hanalei River Heritage Foundation as assistant project coordinator, editor, writer, filmmaker, and marketing director. Founder of the Save Sedona Trees Network.

Contact: 928-451-0321 or sedonajames@msn.com

Support

Kauai Pacific School Don Heacock: DLNR biologist Eyes Of The Reef; Network Water Sports; Adventure Seasport Divers; Hanalei Community Center; Kauai Spearfishing Association; Sierra Club (CA); Surfrider Association (CA); KauaiQuest Adventures/Jim Law; Jonna Lemes

ADDITIONAL CONTACTS AND REFERENCES

Hawai'i Institute of Marine Biology - Dr. Gteta Aeby greta@Hawai'i.edu

University of Hawai'i - Dr. Paul Bienfang 808-358-0414

Surfrider National - Sara Corbin scorbin@surfrider.org

Surfrider CA - Jeff Pienack 805-709-1905

Sierra Club CA - Andrew Christie 805-543-8717

Monterey Bay Aquarium ED Department - Justin Kantor jkantor@mbayag.org

Bakersfield State College - Dr. David Georgi 805-773-8966

Monterey Bay Marine Sanctuary Program - Carol Georgi 805-458-5064

Cal Poly University - Dr. Dean Wendt 805-756-2988

California Coastal Commission - Schrieff Taylor 831-427-4881

Reef Check Founder - Gregor Hodson gregorh@reefcheck.org

Reef Check CA - Cyndi Dawson cdawson@reefcheck.org