

FRIENDS OF HAKALAU FOREST



From the President's Perch..... 2011 Was a very good year for Friends and I want to use my first column of 2012 to highlight some of our major accomplishments.

Membership was up 17% to a total of 171. This is important because member dues and member donations account for the bulk of our income. \$1,000 was awarded from the Jack Jeffrey Conservation Education fund to 'Imi Pono no ka 'Aina to enable students to spend time at Hakalau Forest NWR participating in service projects and learning about native Hawaiian species and habitats. FOHF completed construction of the 19,600 gal tank to supply irrigation water for the native and endangered plant propagation program at Hakalau. The Fish and Wildlife Service paid half the construction cost under a Challenge Cost Share agreement. The FOHF website (friendsofhakalauforest.org) was upgraded to include a page for upcoming and recent events, a Flickr photo gallery and an archive of past newsletters. The National Fish and Wildlife Foundation awarded an \$8,125 Nature of Learning grant to FOHF for a cooperative effort with 'Imi Pono no ka 'Aina and others to develop and implement a climate change and phenology education curriculum for local youth using Hakalau Forest NWR as an outdoor classroom. Tables were set up and staffed by FOHF board members at the UHH Earth Day Fair, the UHH Sustainability Fair

and the refuge Open House to promote the Refuge's mission and FOHF membership and support. Several service trips were made to the Refuge to assist with tree planting, plant propagation in the refuge greenhouse, and to construct picnic tables for use by refuge volunteers, staff and visitors. FOHF organized two guided birding tours to Hakalau Forest NWR for members only and two evening bird talks in Hilo which were open to the general public.

The 2012 Board of Directors held their first meeting in February, an all-day session to elect officers and formulate goals and plans for 2012. Based on this meeting, the current year promises to be even more productive than the last. The 2012 Board is pictured in the photograph on the next page.

Dick Wass, President



Dick & Friends at Earth Day, 2011



2012 FRIENDS BOARD

Layne Yoshia, Creighton Litton, Dick Wass, Rick Camp, J.B. Friday, Mililani Browning, Emily Needham

Layne Yoshida has lived in Hilo for most of his life except when he attended college at the University of Hawaii at Manoa and for a short time after graduation when he worked on Oahu. He received a Bachelor's degree in Botany from the University of Hawaii in 1974 and has a lifelong interest in the Hawaiian Environment, specifically in the plants of the Hawaiian Islands. Except for part-time employment at Macy's and as a botanical consultant, he is currently retired. He was employed by the County of Hawaii as a Criminalist for the Police Department and by the State of Hawaii as an investigator. Layne enjoys the outdoors and working with young people. He has been associated with the Boy Scouts of America for over 20 years, having held the position of Assistant Scout Master, Scout Master and Committee Member, and has participated in volunteer service trips to Hakalau Forest NWR with the scouts.

Richard (Rick) Camp is a Population Ecologist in the Hawaii Cooperative Studies Unit, University of Hawaii at Hilo. He received a B.S. in Wildlife Management from the University of Minnesota in 1991 and a M.S. in Wildlife Biology from Colorado State University in 1995. He has conducted field research on plants, birds, reptiles, mammals, and insects, as well as developed experimental and sampling design protocols, and statistical analyses. His research focuses on abundance and distribution monitoring and spans conservation ecology, wildlife biology, landscape ecology and analytical techniques. He is the Ecology Associate Editor for Northwest Science and a member of the American Ornithologists' Union, the Ecological Society of America, the Society for Conservation Biology, and The Wildlife Society. Rick will serve as an ambassador to further the goals and mission of the FOHF and will contribute his experiences and expertise to advance the interests and social impact of the FOHF.

Michael (Mike) Scott spent ten years in Hawaii as a biologist with the US Fish and Wildlife Service. Recently retired from the US Geological Survey, he spent the majority of his 40 year career studying endangered species and developing ways to conserve them. He has a strong interest in Hakalau Forest National Wildlife Refuge and led the team of biologists which identified Hakalau as a possible wildlife refuge. Mike will work to find ways to support the refuge staff in their efforts to control nonnative species and restore imperiled species.

Missing from the above picture are Mike Scott & Rob Shallenberger

REFUGE MANAGER UPDATE

for March, 2012

by Jim Kraus, Refuge Manager

Recent Volunteer Program Highlights:

On February 10-12, 2012, an eleven member volunteer group from the Richardson School of Law led by Professor Denise Antolini provided volunteer service towards Hakalau Forest NWR Reforestation and Greenhouse Programs. Each member of this group contributed ten hours of volunteer work. This group outplanted 511 understory plants ('ōhi'a, naio, ōlapa, pilo, kawa'u, 'ōhelo and pukiawe) and organized potted plants in the greenhouse.

On February 18-20, 2012, a ten member volunteer group from the Honolulu Sierra Club led by Deborah Blair provided volunteer service towards Hakalau Forest NWR Greenhouse and Reforestation Programs. Each member of this group contributed fourteen hours of volunteer work. This group out-planted five-hundred and twenty-two understory plants ('ōhi'a, pilo, naio, pukiawe, kawau and 'ōhelo), removed weeds from potted plants inside the greenhouse and from the outside of greenhouse large potted plants.

On February 25-26, 2012, a twelve member volunteer group from the Hawaii Community College-Service Learning led by Albert Cortes provided volunteer service towards Hakalau Forest NWR Greenhouse and Reforestation Programs. Each member of this group contributed twelve hours of volunteer work. This group transplanted approximately one-thousand koa seedlings from seed germination benches into dibble tubes, out-planted three-hundred and twenty-five understory seedlings ('ōhi'a, pukiawe, pilo, kawa'u, naio, 'ōhelo and 'āweoweo) and removed weeds from potted plants in the greenhouse.

Americorps:

The Big Island Complex has 2 Americorps interns this year through the KUPU program. Our interns Keith Burnett and David (Mackey) Bishop have assisted the refuge in predator control to protect nesting nene. They have also collected koa seed for the greenhouse operation and worked on control of fireweed and English holly on the refuge. As part of their KUPU internship they also get to join their counterparts from other islands on service trips. Keith recently visited Molokai and with a group doing habitat and cultural restoration (lantana control and weed removal around grave sites) at Kalaupapa while Mackey visited Oahu's North Shore and participated in invasive weed control at James Campbell NWR and Moku'auia (Goat Island). We have really appreciated the extra hands and eyes and ears these guys have given us this year.

Land Protection Plan:

The Draft Environmental Assessment and Land Protection Plan for Hakalau Forest NWR was sent out to 292 parties for public review the week of February 13. The proposed project provides for the expansion of the refuge acquisition boundary for the Big Island NWR Complex by some 30,000 acres and identifies properties of high conservation value worthy of addition to the refuge system or further attention by the Service through conservation easements, cooperative management, or other measures. The Service does not pursue actual *acquisition of land* without a willing seller. This has been a 2 and ½ year project that has had solid support from our Congressional delegation for expansion of the boundary. Once the administrative process is complete, the Service may move forward on the plan depending on future appropriation of funds.



Staff matters:

The crew from the Big Island NWR Complex (Hakalau Forest NWR) received expedited ATV training from Maintenance Supervisor Andy Kikuta in preparation for their detail to Kauai NWR Complex (Hanalei) to work in support of the ongoing avian botulism outbreak response there. Cashell Villa, Kawika Waxman, Leland Jardine, and Kelsey Tsuchiyama travelled to Kauai on Saturday to begin a 2 week detail (February 25 through March 8). Water bird mortalities there are of great concern with 4 endangered species affected.

Pest Control Worker Kawika Waxman from the Big Island NWR Complex is attending the Wage Grade Academy at our National Conservation Training Center in Shepherdstown, West Virginia for the week of March 5, 2012. Kawika has been with the refuge since the fall of 2010. The Academy is an opportunity for selected refuge employees to meet their counterparts from around the refuge system and learn more about the Service, their career opportunities, as well as a chance to directly meet and network with refuge system wage grade professionals, trainers, and our leadership team.

Bird Surveys: Refuge Biologist Steve Kendall has been busy for the past couple of months assisting with forest bird surveys around the Big Island including Palila surveys on Mauna Kea and surveys at Keauhou, Kulani, and Kona Lupea. Annual bird surveys at Hakalau, on which many of those working on the aforementioned surveys will assist, are scheduled for the latter half of March.

Update for March, continued:

Funding:

Hakalau Forest NWR will receive \$500,000 in pig eradication funds from the National Wildlife Refuge System in FY12 to bolster efforts on the refuge to protect endangered species habitat from further pig related degradation. The funds will primarily go into contracts for new fence construction and increased manpower for pig control activities. Loss of staff and traditional funding sources have hampered pig control efforts in recent years, potentially threatening reforestation, nene nesting and outplanting gains. Additional proposals are in progress to obtain additional funding for subsequent years. Term staffing and contract control efforts for both ungulate control and invasive weed control at Hakalau Forest and Kona Forest are not “built in” to the refuge funding base and depend on outside funding from year to year. This short term instability in funding remains highly problematic for the refuge and we are seeking long term solutions to achieve the level of effort outlined in the preferred alternative outlined in the recent Comprehensive Conservation Plan (2010).

Public Access/Maulua Tract:

Rainy weather and deteriorating road conditions have required periodic closure of the public access to the upper Maulua Unit of the refuge this year. Limited funds for road maintenance and the increased likelihood of visitors being stranded after getting vehicles stuck in mud or hung up trying to maneuver out of rough spots necessitate this action until conditions improve. This is in stark contrast to other temporary closures of the area in recent years due to extreme fire risk. This precaution is to avoid accidental ignitions in high grass during prolonged periods of drought. Guests are required to register with the refuge office prior to accessing the unit so current conditions and closures can be explained prior to anyone driving up to the refuge.

JK



A VISITOR'S VIEW OF THE REFUGE...

Stephen C Matthews
Washington state

Hakalau Forest National Wildlife Refuge was established in 1985 to protect and manage endangered Hawaiian forest birds and their rain forest habitat. Located on the windward slope of Mauna Kea, Island of Hawai'i, the 32,733-acre Hakalau Forest Unit supports a diversity of native birds and plants. My second trip to the Refuge in three years was in February, 2012 when I visited Hakalau via Hawai'i Forest & Trail. The tour was small with just eight people and the guide who was very knowledgeable about the rare and endangered Hawaiian birds, trees and plants which we saw.

I saw large numbers of the beautiful scarlet red 'I'iwi birds and remember that this is a bird that most tourists as well as native Hawaiian's have never even seen in the wild! I also saw three of the very rare and endangered 'akiapōlā'au birds which occur in only a few areas of upper elevation koa and 'ōhi'a lehua forest on the Big Island of Hawai'i. The 'ōhi'a lehua tree grows very slowly, 0.3–0.6 m (12–24 in) per year in height, and 1–3 mm (0.04–0.12in) in stem diameter per year. Some of the large 'ōhi'a lehua trees that we saw during the visit to Hakalau were estimated to be over 1,000 years old due to their very large diameter trunks and height. It was an amazing experience to walk through this forest of very large 'ōhi'a lehua and koa trees while listening to the beautiful symphony of bird calls that surrounded us!

I learned of and joined the FOHF organization a few weeks ago after my second visit to the refuge. I live in Washington state, but I realized that you don't have to live in Hawaii to participate and lend your support to this worthwhile effort!

FOHF Receives Nature of Learning Grant for Youth Education Program

FOHF is very pleased to announce that we were recently selected for funding (\$8,125, plus \$4,460 in matching funds from the University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources and 'Imi Pono no ka 'Aina) from the National Fish and Wildlife Foundation, Nature of Learning program. The Nature of Learning program is the U.S. Fish and Wildlife Service, National Wildlife Refuge System's community-based environmental education initiative that seeks to: (i) use National Wildlife Refuges as outdoor classrooms to promote a greater understanding of local conservation issues; (ii) encourage an interdisciplinary approach to learning that seeks to enhance student academic achievement; (iii) utilize field experiences and student-led stewardship projects to connect classroom lessons to real world issues; and (iv) create partnerships among local schools, community groups, natural resource professionals and local businesses.



Dr. Creighton Litton

The FOHF developed and submitted a proposal to this program in April, 2011 and we were notified of the award in June, 2011. We are currently using these funds to develop a youth education curriculum at Hakalau Forest NWR for local middle and high school students centered on climate change (natural and anthropogenic) and plant phenology (timing of life history events such as leaf flush, fruiting, flowering). To accomplish this, we are developing a citizen science framework where local youth will collect data to generate a long term dataset on plant phenology in the Hakalau Forest NWR, which will be linked to a national phenology network (the USA National Phenology Network; <http://www.usanpn.org/>). There is currently no such educational program at Hakalau Forest, and very limited opportunities for local youth elsewhere in the state to become informed about climate change and its potential impacts on the native plants and birds in Hawaii in an experiential, field-based curriculum. In addition, the USA National Phenology Network currently has no participants from the state of Hawai'i, and they have been enthusiastic supporters of our efforts to date.

The specific goals of this project are to: (i) develop and implement a climate change and phenology education curriculum for local youth using the Hakalau Forest NWR as an outdoor classroom in a citizen science framework where students collect long term data on plant phenology in the Hakalau Forest NWR; and (ii) foster a long term partnership between Hakalau Forest NWR, the Friends of Hakalau Forest NWR, and 'Imi Pono no ka 'Aina, an environmental and conservation education program for local youth in Hawai'i. A minimum of ~36 students will benefit from this program in 2012. We fully anticipate that many additional youth will be exposed to the conservation education curriculum developed with this project in future years, and the Friends of Hakalau Forest NWR will actively promote its existence and use throughout the state.

We are currently developing the curriculum, and will administer several "test runs" in the near future with students from the 'Imi Pono no ka 'Aina program. The goal is to be fully functional for the 'Imi Pono no ka 'Aina summer 2012 program, and to additionally offer the curriculum to student groups from throughout the Big Island and State of Hawai'i. In addition, we are seeking funding to develop a teacher training module for the summer of 2013 designed to educate and empower local teachers to utilize the curriculum with their students at any time in the future.

If you have any questions about the youth education curriculum on climate change and plant phenology that we are developing, are interested in bringing a group of students to the refuge to utilize the curriculum, and/or would like to help with the overall effort, please contact Dr. Creighton M. Litton (litton@hawaii.edu).

2012 Jack Jeffrey Conservation Education Award

‘Imi Pono no ka ‘Āina (‘Imi Pono), the environmental education program for *The Three Mountain Alliance* (TMA) watershed partnership, is very grateful to receive the 2012 Jack Jeffrey Conservation Education Award. The award will be used to support two, three-day trips to Hakalau Forest National Wildlife Refuge (Hakalau Forest NWR). Each trip will be a part of a ten-day summer student enrichment program, which is available to students in grades 6-12. A total of 24 students, 12 per session, will be included in the program. The Hakalau portion of the program includes a day working in the Lualima greenhouse, learning about the endangered ‘ōhāwai and mintless mints and carefully transplanting tiny keiki plants. Day two is a day full of out-planting. Students work together to plant hundreds of understory species that will one day provide habitat for native birds and support a healthy watershed. All our hard work, if you can even call it that, is all worth it when on the last day we head to Pua‘ākala and are able to get a closer look at the jewels of the forest, the birds! While at Pua‘ākala the students will also learn about and collect data on the pheno phases of Koa and ‘Ōhi‘a as part of a phenology and climate change project through the Nature of Learning Program. Hakalau is truly a special place. The JJ Award will ensure that 24 island youth are able to see the mist settle on the Koa leaves while trying to find a rare bird or work along side a friend to restore a mountain – experiences that enrich and cultivate stewardship of the land.



Lahela Camara

Lahela Camara, Program Coordinator



Above: Scott Laursen (University of Hawaii at Manoa) works with two middle school students from the Imi Pono no ka Aina program on using a spotting scope to examine tree canopy phenology in Hakalau Forest National Wildlife Refuge.



Right: Middle school students from the Imi Pono no ka Aina program pose for a photograph after measuring phenology of native trees at the Hakalau Forest National Wildlife Refuge. Also pictured in the back row from left to right are Steve Kendall (Refuge Biologist), Colin Phifer (Graduate Student at the University of Hawaii at Hilo), and Lahela Camara (Imi Pono no ka Aina Coordinator).
Photos courtesy of Dr. Litton