



*Promoting knowledge, appreciation, and conservation of Kaua'i's native forest birds*

## A successful 2011 field season

Kaua'i Forest Bird Recovery Project had a very productive field season this year. We continued our work with Puaiohi, or Small Kauai Thrush, and we broadened our research focus to include two additional endangered species, 'Akikiki and 'Akeke'e. These species were listed as federally endangered in 2010, and we will study their ecology and demography, as little is known about them (see below).

We had a great crew working with us this season. Rachel Perpignani, Elisa Weiss, Mitch Walters, Rebecca Wilcox, and Anna Yoke joined the project from February through July. Cody Hagan, working as an AmeriCorp intern, helped with the project until July. Tessa Behnke worked with us for the month of June, and Paul Furumo was here in June and July.

We still work from our two traditional base camps, Halepa'akai and Kawaikoi, and we set up a temporary camp near Mohihi stream in the heart of the Alaka'i Wilderness Preserve. This year marks our first year of intensive occupancy surveys for the Puaiohi. In order to get a better understanding of Puaiohi population and distribution, we conducted surveys along five different streams in the Alaka'i. We were impressed with the number of Puaiohi along Mohihi Stream! Another activity this year was bird and vegetation surveys for our East Alaka'i fence project (see page 2 for more details and results of this project).



2011 Field Crew. From left to right: Lucas Behnke, Ruby Hammond, Barbara Heindl, Lauren Solomon, Cali Crampton, Mitch Walters, Cody Hagan. In front, left to right: Rachel Perpignani, Elisa Weiss.



Cody Hagan and Becky Wilcox process an Kaua'i Elepaio during a banding session. Photo by Lucas Behnke.

Although our breeding season work is done, we're still tracking Puaiohi movements with radio telemetry. The transmitter on one female, who was banded in July near our Halepa'akai camp, is still going! In September she moved downstream a bit, but she's mostly hanging around camp.

Thanks to everyone who helped out to make our 2011 field season a successful one!

## New year, new staff members, new projects

KFBRP welcomed two new staff members earlier this year. Ruby Hammond and Lauren Solomon joined the project as research assistants in January and February, respectively. Ruby has held various positions in the Hawaiian islands since 2007, including previous work on Maui, Oahu, and Laysan. Lauren most recently worked for Virginia Tech investigating the effects of the Deepwater Horizon oil spill on Piping Plovers in their wintering grounds along the Gulf coast.

Ruby also started her graduate studies at Northern Arizona University this fall, under Jeff Foster. Her project will investigate nest predation and nest success of forest birds, with an emphasis on 'Akikiki and 'Akeke'e.

Lucas Behnke continued his graduate studies with Liba Pejchar at Colorado State University this fall. His project also focuses on 'Akikiki and 'Akeke'e, but he is looking at the relative influence of vegetation characteristics, food resources, and predation pressure as predictors of 'Akikiki and 'Akeke'e home range size and density. In the first year of his study, we found at least 12 'Akikiki territories in the 100 hectare Halepa'akai and Halehaha study area, averaging 1.19 ha, a lot bigger than previously thought!

Now that all staff have been with us for a full year, we are looking forward to starting the 2012 field season with a bang!

## A Year of Conferences

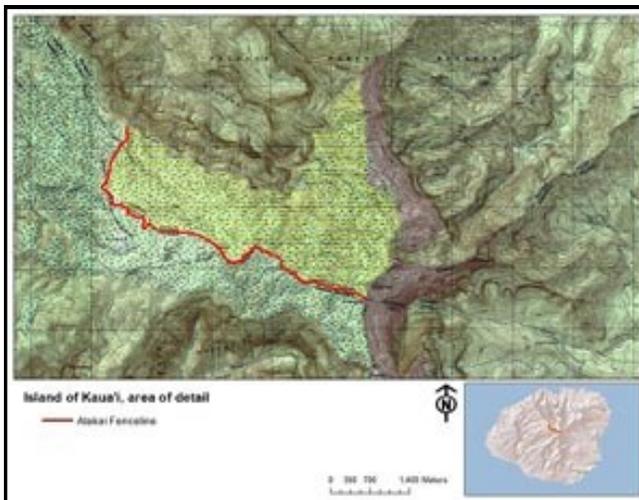
KFBRP staff were busy analyzing and summarizing data during the non-breeding season, and attended two conferences, the Hawai'i Conservation Conference (HCC) in Honolulu in August, and the national meeting of the Wildlife Society in Waikoloa in November.

Lucas presented posters at both conferences about his master's research entitled *Influence of vegetation community, food abundance, and predation on Kaua'i's Endangered Honeycreepers: Research Study Design and Initial Results*. His study is trying to quantify which factors, including vegetation structure, food resources, and predation most strongly correlate with 'Akikiki and 'Akeke'e home range size and density. Because data on the basic biology and habitat relationships of these species is so poorly known, his findings will help to prioritize future research and conservation efforts for these two unique species.

Lauren's HCC poster, *Territory selection by Puaiohi: influence of food abundance and forest composition and structure*, described our efforts to determine Puaiohi habitat preferences. We compared vegetation characteristics and fruit abundance of territories with unused areas. There were no striking differences in vegetation, but fruit abundance of two species, Pukiawe and Kanawao, was higher in territories, indicating that these fruits might influence territory selection.

Ruby gave a presentation on another aspect of habitat selection at HCC, *A geographical evaluation of nesting substrate for the Puaiohi, Myadestes palmeri*. Ruby discussed possible nest-site limitations on Puaiohi and speculated how such impediments restrict use of other streams outside their current range. The main feature of nest walls appears to be their large vertical extent. This research could have implications for management, including assessing suitability of release sites for future Puaiohi translocations.

Cali gave a talk at the Wildlife Society meeting that combined data from both Lauren and Ruby's presentations from HCC, titled *Habitat Selection by endangered Puaiohi: Influence of food abundance, nest sites, and forest composition and structure*. Both nest wall size and fruit abundance appear to determine territory placement by Puaiohi, and should be considered in management efforts.



Barbara gave a talk at HCC about our ongoing monitoring project in the East Alaka'i area, *Forest bird populations in relation to forest vegetation and structure on the Alaka'i Plateau: Baseline abundance and richness pre-installation of the Alaka'i protective fence*. This protective fence will exclude pigs and goats from 2,000 acres in the region. Baseline data show no differences between vegetation characteristics on each side of the incipient fence, but higher native bird abundance outside the fence; we will further explore possible reasons for this difference. Barbara discussed future monitoring plans upon completion of the fence and the potential for this exclusion to create more suitable habitat for native forest birds.

Great job everyone!

Left, a map outlining the area protected in the East Alaka'i region.

## Outreach!

In February 2011, we held what we hope will be an annual event: inviting Kupuna to bless the start of our field season and our work in the Alaka'i. On a beautiful morning, which awarded stunning views of Kalalau Valley and the entire Alaka'i Plateau, Keahi Manea and Heu'i Wyeth from Ka'imimi Na'Auao 'O Hawai'i Nei Institute performed songs and dances invoking the elders and the gods to watch over us during our field work.

This year was filled with other awesome outreach events. We set up tables at the Art & Orchid Festival, the Banana Poka Festival in Koke'e State Park, Princess Ka'iulani Festival, and Arbor Day. The highlight of the Princess Ka'iulani Festival was putting on a skit for the children demonstrating the dangers of invasive species to native forest bird species! At the end of our field season, two of our technicians, Elisa Weiss and Mitch Walters, also helped out with the Forest Bird Akamai Camp, a product of the Story Book Theater of Hanapepe.

A major accomplishment was our new website: [kauaiforestbirds.org](http://kauaiforestbirds.org) Check it out!



Kupuna blessing the start of our field season.  
Photo by Anna Yoke.



Adult Puaiohi incubating eggs inside an artificial flower-pot nest box along Kawaiikoi stream. Photo by Eric Vanderwerf.

In early June, while two staff members were exploring the Kawaiikoi stream, they discovered a pair of Puaiohi using a wooden nest box for nesting. The pair consisted of a wild female and a captive bred male from the 2010 release cohort. This box fledged one chick. Not long after the first nest fledged, another nest was found in a flower pot nest box with two eggs laid by a wild female (the male was unknown), and several other boxes showed evidence of nest construction. This is fantastic news! These are some of the first attempts by Puaiohi in 10 years to use artificial nest boxes for nesting.

Developing and installing nest boxes for the management of the Puaiohi population has been a major component of KFBRP's work in past years, and it's wonderful to see pairs using nest boxes successfully. Both styles of nest box used, the flower-pot and the wooden design, have not yet been proven to be rat-proof. So currently, we are testing both styles of nest

boxes for "rat-proofness" and if necessary, we will add rat-proofing. In January, we will host two volunteer days to construct and install new rat-proof boxes in Kawaiikoi before the release of a new captive bred cohort in late February 2012.

## Volunteers are always welcome at KFBRP!

There are many ways for you to get directly involved in saving the forest birds of Kauai. We have opportunities for everyone from home crafters to experienced outdoor enthusiasts.

**For the quiet crafter:** Sew bird bags to be used to hold captured birds while they wait to be banded. Create at your own pace in your own home. Fabric provided.

**For the crafty builder:** Help us build nest boxes for Puaiohi out of flower pots. Experience using drills and small hand tools appreciated but not required. Work party January 21-22.

**For the rugged outdoors person:** Help us install nest boxes in our study area in early February (specific dates TBD). OR Assist us with plant surveys to determine if ungulate (goats and pigs) removal in the East Alaka'i is helping to improve forest structure. Learn about forest plants. Enjoy overnight accommodations in a remote encampment in the Alaka'i and savor campstove pineapple upside-down cake prepared by seasoned KFBRP staff.

**For the seasoned bird bander:** Assist with operating mist nets and banding native forest birds at our three field sites in January and February—Your opportunity to literally get up close with the birds.

**Donate materials:** Materials and supplies are always needed to construct nest boxes. Right now we are in need of: nuts and bolts, plastic flower pots, 1/2" metal floor flanges, and plumbers caulk. We also need fabric and supplies for bird bags—Tap that fabric stash and donate cotton fabric at least 1 square foot or larger, thread, draw strings.

If interested, e-mail Barbara (bheindl@hawaii.edu) with a brief description of how you would like to get involved. Tell us about your background so we can match you to the perfect volunteer position. This is your opportunity to get hands-on with KFBRP.



## Upcoming events in 2012

We have lots planned for the upcoming 2012 season! In addition to building and installing nest boxes, our field work plans for next year include:

- Continuing our surveys of Puaiohi occupancy and distribution, expanding these surveys into new streams.
- Using telemetry to monitor the success of the 2012 release of captive bred birds, and post-breeding habitat use by wild birds.
- Collecting data for both Lucas' and Ruby's research projects on `Akikiki and `Akeke`e (see page 1).
- Finishing collection of vegetation data for the East Alaka'i Fence Project.
- Hosting the Hawaii Forest Bird Surveys.

# KAUAI FOREST BIRD RECOVERY PROJECT



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The mission of the Kauai Forest Bird Recovery Project is to promote knowledge, appreciation, and conservation of Kauai's native forest birds. All of these species are unique to Hawai'i; several are found only on Kauai. Since 2003, we have sought to understand the ecology of the birds of Kauai, the impacts of the many threats they face, and the potential of different management strategies for recovering their populations. Research is our primary focus, but in recognition of the importance of outreach and direct conservation efforts, we participate in these activities as time and appropriate funding allows.

Join us for a fundraiser at Merriman's in Kukui'ula, where 25% of all food sales from the night will help fund KFBRP projects! It will be on Saturday, January 14 2012. Check our website and Facebook page for updates. See you all there!

## In the news

A number of different news articles went to press this year highlighting work done by KFBRP, or upcoming projects. You can find links to these articles on our website.

An article appeared in the New York Times Travel section, titled *A Precarious Eden for Rare Birds on Kauai*. It highlighted threats Hawaiian birds face, and also provided information on where to go birding on Kauai, courtesy of staff member Lucas Behnke.

An article in the November 30th edition of Midweek Kauai, *Disney Funds Koke'e Habitat Research*, describes our newest grant from the Disney Worldwide Conservation Fund, and the joint project between KFBRP and Koke'e Resource Conservation Fund to research the effect of alien plant removal on native forest birds. Work for this project will begin in spring 2012.

In addition, we have a new website up and running, [www.kauaiforestbirds.org](http://www.kauaiforestbirds.org). Check it out for updated information about ongoing projects or to learn more about the native forest birds of Kauai. Let us know what you think!



Earlier this year, in February 2011, we moved our office from Waimea to Hanapepe. Our new office is located at 3751 Hanapepe Road, across from the Bank of Hawai'i.

## Help support KFBRP

We currently have several tokens of appreciation available by donation. We have t-shirts featuring our official project logo and Hawaiian motto (*Ho'okolo aku i ka nui manu*, which translates to "go inquire of the birds") designed by local artist, Becky Williams of Dragonhouse Studios. There are also shirts featuring artwork designed by Eleanor Grosch, of Just Eleanor. We have both ceramic mugs and steel travel mugs, each with either the KFBRP logo or Eleanor's stylized artwork. Also, we have sets of four blank notecards; each set contains one photo card of each endangered species, and one card with Eleanor's design depicting the three forest bird species against a purple background. Mahalo for your support!



From left to right: Steel travel mugs with project logo or Eleanor Grosch artwork; set of four blank notecards with photos of endangered forest bird species and artwork; t-shirts with official project logo and motto, and ceramic mug with Eleanor Grosch artwork displaying three endangered forest bird species against a purple background.

### Suggested donations:

Notecards.....\$10  
Ceramic mugs.....\$12  
Travel mugs.....\$16  
T-shirt with artwork.. \$18  
T-shirt with logo.....\$20