



Kiwikiu news

Nets in the Mist

Story contributed by Christa Seidl, Kupu-AmeriCorps for MFBRP

Moss carpets every inch of the forest understory; the world is buffered by a soft layer of green bubble-wrap. While verdant ferns push up through the bryophyte mantel, gnarled ohelo, pukiawe and kolea branches twist low across the forest floor; and towering o'hia trees give birth to vermillion blossoms. Mysterious wisps of cloud roll up from the ocean below and echoing bird calls settle a primal aura over the land. Wedged in the padded nook of a giant o'hia tree, I patiently wait the passing of 30 minutes and marvel at the ecosystem that surrounds me. Welcome to the The Nature Conservancy's Waikamoi Preserve and the Maui Forest Bird Recovery Project.

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I am on what bird biologists call a "net run," waiting for birds to accidentally fly into a line of specially woven nets along the forest trail. Every thirty minutes these nets are checked, and caught birds are carefully and skillfully removed to be brought back to the central banding station. The next step, "bird banding," is a widely-practiced scientific research tool that allows biologists to collect detailed measurements on characteristics such as a bird's age, plumage, wing length, and beak size. These data play a crucial part in monitoring the health of bird populations, particularly for species that are endangered like the Kiwikiu (Maui Parrotbill). All birds are released unharmed, sporting numbered metal leg-bands and some with additional colored plastic bands. Color bands are given to specific species of interest and researchers use the order of the colors to identify individuals in the wild without having to recapture them. Re-sighting color-banded Kiwikiu is my main responsibility as a technician and AmeriCorps intern with the Maui Forest Bird Recovery Project. For now, however, I enjoy the special treat of experiencing Maui's jewel-like honeycreepers up close and personal.

Finally our thirty minutes are up, and I follow my supervisor back toward the banding station. Nets are passed, empty of birds, and I begin to give up hope for our first run. Suddenly, as we round the last corner, a young I'iwi hops into our final net and lands softly in one of the pockets. My first honeycreeper! I watch intently as my experienced supervisor frees the bird and to my surprise, hands it over to me. Cupped securely in my hands, I hold my first Hawaiian bird and am in awe of its beauty. I see in its amber eyes all the color, complexity, charisma and courage that define the Hawaiian Islands, and I know then that I'll never forget this year as a KUPU AmeriCorps intern.



UPCOMING EVENTS

- ▶ **Maui Charity Walk.** Saturday, May 11. 7-10am. Sign up to walk with MFBRP by calling our office: 808-573-0280.
- ▶ **Pint Night for the Birds** at Maui Brewing Company. Friday, June 28. 6pm-Midnight.
- ▶ **Maui Forest Bird Presentation** at Hawaiian Islands Humpback Whale National Marine Sanctuary. Tuesday, July 9. 6-7pm.

Avian Research & Management Update



WINTER RECAP

Two female Kiwikiu, Two male Kiwikiu, and 10 new Akohekohe were banded during volunteer banding trips in TNC's Waikamoi Preserve.

Above: Volunteers Laura Marie Koitsch and Renee Peter, and Kauai Forest Bird Recovery Project's Barbara Heindl joined MFBRP staff for a banding trip in October. Left: Volunteers Denise Turley and Jen Milikowsky joined MFBRP staff for the January banding trip.

Welcome to the Breeding Season

In February, MFBRP welcomed our 2013 research assistants: Teia Schweizer, Keith Burnett, Lexi Journey, and Bob Taylor. Christa Seidl also joined the MFBRP staff this season as our Kupu-AmeriCorps. The team is currently halfway through the 2013 Kiwikiu field season, searching for Kiwikiu pairs, nests, and hatch-years in The Nature Conservancy's Waikamoi Preserve. This will be MFBRP's second year conducting productivity research at this field site. In addition to these searches, field staff re-sight color-banded Kiwikiu, Akohekohe, Maui Alauahio, and now liwi. Resight data help us to determine how many pairs of Kiwikiu are within our study site. We use this to calculate densities and home range sizes. MFBRP also targets unbanded Kiwikiu in order to capture and color band them for monitoring. So far, three Kiwikiu have been banded. Additionally, six mealworm feeders have been set up to continue last year's supplemental feeding study. Good luck to our research team!



Left: A newly banded Kiwikiu, Research Assistant Teia Schweizer with a Maui Aluahio, and Research Assistant Lexi Journey with a Kiwikiu.

A Rare Encounter

On Monday, February 11th, 2013, Chuck Probst, docent for The Nature Conservancy (TNC), and Rob Ripma came across an odd sighting in TNC's Waikamoi Preserve: a male Maui Parrotbill in a Mexican weeping pine (*Pinus patula*). For a bird that is typically found in native ohia and koa forests, this is an interesting sighting. This particular non-native tree is located on the edge of a gulch dominated by native vegetation. The Parrotbill could have followed that native vegetation up to where the non-native forest started but it still raises some particularly interesting questions. Was the Parrotbill foraging in this non-native tree? Does he often visit the non-native forest? Fortunately, this bird was color banded in January 2013. We know the "identity" of the bird and can follow him through re-sights, marking his location and observing his habits.



Photo by Rob Ripma

Northern Arizona University graduate student, Peter Motyka, is currently researching the use of non-native forests by the Maui Alauahio in Polipoli State Park, an area fully dominated by non-native canopy tree species. Understanding the dynamics restricting native forest birds to native forests may be key in our management for their recovery. If these birds are more flexible in their use of non-native forest areas than currently thought, future management strategies for some native honeycreepers could change.

Nakula Forest Restoration Update

The Nakula protection and reforestation effort is benefiting from a partnership approach. The Natural Area Reserve System, Leeward Haleakala Watershed Restoration Partnership, DOFAW, Native Nursery, MFBRP staff and dedicated volunteers are moving the project forward together.



Above: Young koa and aalii are already present in the enclosure, a result of natural regeneration in the absence of ungulate pressure.

Right: Camp Release, and seeds collected for experimental restoration trials.

Forest Restoration at Camp Release

Last year, MFBRP began working in a fenced enclosure within the Nakula NAR. The focus of this site is forest restoration and the eventual reintroduction of the Kiwikiu to the leeward side (see September 2012 issue for more details and stay tuned for more information on our website).

- In October, volunteers Laura Marie Koitsch and Renee Peter helped set up experimental restoration plots. Trials in these plots will help determine the best method for reforestation: natural regeneration, seed scatter, outplanting, or a combination of treatments.
- In January, the Natural Area Reserve team reported that nearly all ungulates have been removed from the enclosure, an important milestone for the project.
- In March, staff from Leeward Haleakala Watershed Restoration Partnership, Maui Nui Plant Extinction Prevention Program, and Native Nursery helped collect seeds from native plants including koa, kolea, aalii, mamane, and kawau.
- A weather station was installed to collect precipitation and temperature data.
- Dr. James Leary, from UH Manoa, trained MFBRP staff in herbicide application, part of the experimental restoration trials.



Published Works

Determining productivity of Maui Parrotbills, an endangered Hawaiian honeycreeper was recently published in the *Journal of Field Ornithology*. You can read this manuscript, as well as other recent publications on our website, mauiforestbirds.org.

2012 Publications include:

Brinck, K.W., et. al. 2012. 2011 Kiwikiu (Maui Parrotbill) and Maui Alauahio abundance estimates and the effect of sampling effort on power to detect a trend. Hawaii Cooperative Studies Unit, University of Hawaii at Hilo. Technical Report HCSU-035.

Vetter, J.P., et. al. 2012. Survival estimates for two Hawaiian honeycreepers. *Pacific Science* 66(3):299-309.

Mounce, H.L. and D. L. Leonard. 2012. Habitat restoration aiding the recovery of the Maui Parrotbill. *Biodiversity Science* 6.

Project Support & Partnerships

MFBRP welcomes new staff

In December 2012, MFBRP welcomed Chris Warren, our new Avian Research/Restoration & Data Management Technician. Chris will be assisting MFBRP with data collection for avian research and restoration projects, and will be taking the lead on data management and GIS analyses for reports and publications.

Chris is originally from the mainland where he received a B.A. in Biology from Earlham College and an M.S. in Population & Conservation from Texas State University. He has lived and worked in many parts of the country working with other endangered bird species, most recently the endangered Golden-cheeked Warbler in Austin, TX. He is thrilled to now be a part of the conservation community in Hawaii.

In October 2012, MFBRP welcomed our new Kupu-Americorps intern, Christa Seidl. Christa is part of the 2013 field technician team for the 2103 Kiwikiu breeding season. Additionally, she has helped with banding and seed collection trips and is creating a native plant guide for Waikamoi and Nakula.

Hailing from the Midwest, Christa received a B.S. in Botany and Environmental Studies from the University of Wisconsin-Madison. Having worked in environmental education and conservation across Wisconsin, Ecuador and California, she looks forward to following her passion for avian ecology with MFBRP.



Donation Needs

- Donate HawaiianMiles to MFBRP! Visit <http://www.hawaiianairlines.com/hawaiianmiles/donate-miles/>
- Want to volunteer with MFBRP? Visit <http://www.handsonmaui.com> for a list of volunteer opportunities at our office.

Thank you, partners & supporters!

- The Nature Conservancy helps MFBRP by delivering supplies to the field technician camp. Photo: Pat Bily loading up gear.
- Supporters donated **274,431** HawaiianMiles to MFBRP in 2012! Mahalo!
- We appreciate all of the hard work our volunteers have done during the banding and seed collecting season!



Kauai Exchange

Did you know that the island of Kauai also has a forest bird recovery project? The Kauai Forest Bird Recovery Project (KFBRP) is striving to recover three endangered honeycreeper species that are endemic to Kauai: the Puaiohi (Small Kauai Thrush), the Akikiki (Kauai Creeper), and the Akekee (Kauai Akepa). They are monitoring these rare birds' demographics (survival and productivity) as well as their behavior (foraging and nesting behavior, habitat preference). Additionally, they are investigating the use of nest boxes by Puaiohi and have aided in 14 years of captive bred Puaiohi releases. Their main field sites are in the Alakai Plateau, a wet, muddy area with gnarled and stunted ohia trees and deep valleys with streams interlacing the area. In fact, a lot of their surveys are conducted in these streams where the Puaiohi nest. Because of Kauai's low elevation, avian disease is likely a large contributing factor to the birds' decline. Damage to the forest by pigs, which are not yet fenced out, is also very evident. Most of the birds can be seen foraging in the higher part of the canopy. This could be due to the lack of understory from pigs' digging and rutting.

Although our organizations are on different islands and we study different birds, there is much to learn from each other. Recently, Barbara Heindl, Field Crew Leader at KFBRP came to Maui to learn more about banding birds and aid MFBRP on one of our volunteer banding trips. In exchange, Laura Berthold, Ornithological Research/Logistics and Outreach Technician for MFBRP joined KFBRP on their February banding trip. Both staff members learned about the other organization and brought back ideas to their respective positions. We hope to do more exchanges like this in the future to broaden our projects' perspectives. To learn more about KFBRP, visit their website at <http://kauaiforestbirds.org/>.



Above: KFBRP Field Crew Leader, Barbara Heindl with a Kiwikiu during a Maui banding trip. Corner photo: An Elepaio netted during MFBRP's exchange on Kauai.