



Kiwikiu news

Is the I`iwi Officially Endangered?

The US Fish and Wildlife Service (USFWS) is currently conducting a thorough, 12-month review of the I`iwi (*Vestiaria coccinea*) to determine whether it will be listed and protected as a threatened or endangered species under the U.S. Endangered Species Act. The review was initiated by a petition filed with USFWS in 2010 by the Center for Biological Diversity and Dr. Tony Povilitis (husband of former MFBRP project coordinator, Dusti Becker).

The I`iwi, like most of the Hawaiian honeycreepers, is threatened by habitat loss, disease, introduced species, and climate change. The I`iwi population is estimated to be ~605,000 individuals (USGS-BRD 2013). In comparison, Kiwikiu are estimated at ~500 (endangered) and Maui Alauahio at ~55,000 (not listed). Despite what may seem to be a large population, the overall decline of the species in much of its range is very troubling. A recent trend analysis conducted by the USGS found I`iwi populations at Hakalau Forest National Wildlife Refuge on Hawai`i Island and on the northeast slope of Haleakala to be stable or possibly increasing. However, elsewhere in its range the population is in drastic decline. Although, I`iwi are found on all of the main Hawaiian Islands except for Lāna`i, very few individuals remain on O`ahu and Moloka`i. In fact it is estimated that over 99% of the current population resides on Hawai`i Island and on east Maui, leaving only small, remnant populations elsewhere. I`iwi are currently listed as endangered on O`ahu by the state of Hawai`i (< 50 individuals estimated remaining). Population decline on O`ahu may be due to lack of high elevation habitat free of avian malaria, a disease I`iwi are highly susceptible to. Loss of the species on these islands would represent a huge loss of genetic diversity for the species not to mention the important pollination services I`iwi provide to many rare and endangered plants.



The petition to USFWS suggests listing the I`iwi as threatened or endangered and delineating critical habitat. Establishing and managing protected areas, fencing out ungulates and predators, and controlling invasive species are necessary actions to provide I`iwi with suitable habitat, especially in high elevation areas. To understand all factors contributing to I`iwi population decline, more investigation into disease resistance and associated genetic markers is needed. Continued monitoring of I`iwi and their abundance through established survey methodology as well as the implementation of additional research and monitoring surveys will also increase our knowledge of this species. MFBRP just recently started color banding I`iwi in January 2013. By re-sighting these individuals, MFBRP can learn more about the I`iwi population in The Nature Conservancy's Waikamoi Preserve. *(continued on back page)*

A Visit from the Mohamed bin Zayed Species Conservation Fund

In January of this year, MFBRP was paid a visit in the field by the Mohamed bin Zayed Species Conservation Fund (MBZ). MBZ is a philanthropic endowment established to provide targeted grants to individual species conservation initiatives, recognize leaders in the field of species conservation, and elevate the importance of species in the broader conservation debate. MBZ has generously awarded funding to MFBRP for the past two years to continue Kiwikiu research and management. Among the team that came to Maui were Kirk Duthler (Head of Business Development) and Nicolas Heard (Head of Fund Management) as well as two documentary film makers from Minnow Films of the UK. Besides observing the ongoing work of MFBRP, the MBZ team came to Maui to film part of an upcoming documentary featuring some of the global projects that they have supported. MBZ makes it their goal to not only recognize the species in decline that need help but also to support the people with a passion for protecting endangered species.

You can view some of the footage that they took while on Maui in a 5-minute film that explains MBZ's unique conservation philosophy ([link below](#)). We look forward to announcing the release of the full documentary in early 2014.

To watch a short clip of the video featuring MFBRP, visit: www.youtube.com/watch?v=Nd5uR-7Icdw



Avian Research & Management Update



2013 Breeding Season Summary

The 2013 breeding season marked MFBRP's second full year intensely monitoring Kiwikiu in The Nature Conservancy's Waikamoi Preserve. Our team followed and monitored breeding Kiwikiu pairs, adding to our knowledge of the population's demographics in Waikamoi, the westernmost edge of the species' range.

From February to June, full time staff as well as AmeriCorps intern, Christa Seidl, were joined by four research assistants: Lexi Journey, Teia Schweizer, Robert Taylor, and Keith Burnett. Their time amounted to 495 person days and 3335 hours of research. Within this time, 17 individual Kiwikiu were re-sighted and 8 were newly banded. Overall, 21 Kiwikiu pairs were located and six of them were seen with hatch-year (or juvenile) birds, giving the season a 28.5% annual reproductive success rate for hatch-years/pair. In addition, we also found and monitored five nests. Only two of the nests were successful, two failed after heavy rain, and one failed in the late nestling stage and may have been depredated.

We greatly appreciate the hard work of this year's crew, their contributions of effort and talent, and their dedication to avian research and native forest bird recovery on Maui. Read more about the 2013 breeding season at www.mauiforestbirds.org/articles/92.

MFBRP has hired our 2014 Research Assistants!

We will be welcoming Wes Homoya, Liza Olson and Conor Higgins to MFBRP in January!

Kiwikiu Supplemental Feeder Experiment

In 2013, we continued experimentally providing supplementary food to the Kiwikiu, a project that was started in 2012. We modified our feeders to increase their height from 3 ft to 7 ft, which was more in the Kiwikius' feeding range. We also tried to attract them to the feeders by camouflaging feeders with their favorite plants and by playing calls. Unfortunately no Kiwikiu used the feeders in the wild. Supplemental feeders were also placed within the Maui Bird Conservation Center's captive breeding facility and Kiwikiu readily fed from them there.

Why could supplemental feeders be important?

When Kiwikiu are reintroduced to the leeward side of Haleakala, there may be a mix of captive and wild birds released. One scenario is that the captive birds may be able to teach the wild birds how to use feeders if the wild birds are conditioned to use them in captivity first. The feeders may prove to be helpful in the translocation by supporting birds as they become established in a new habitat. Re-introduction plans are currently being designed.



Nakula Forest Restoration Update

Forest Restoration is Underway in Nakula

One of our primary goals is to help restore native forest in Nakula Natural Area Reserve in order to establish a second population of Kiwikiu on leeward east Maui. In 2012, MFBRP began a trial restoration experiment to investigate the most efficient and cost effective way(s) to restore the forest in Nakula (see September 2012 Newsletter). These restoration trials are now well underway with some plots already showing signs of regeneration! Staff, assisted by very dedicated volunteers, have begun planting seedlings grown off site by Native Nursery—6,497 plants are going in the ground this Fall!

- In April, MFBRP began implementing the initial experimental treatments on the restoration trial plots. These treatments include several methods to remove or disrupt the dense non-native grass layer thought to prevent natural germination.
- In July, staff and volunteers prepped a corridor for planting o`hia and mamane seedlings. Funds to purchase and plant these seedlings were provided exclusively through support from the public through a wildly successful Razoo crowd-funding campaign MFBRP launched this past summer (see back page).
- In August, MFBRP staff and volunteers completed the initial treatments on the experimental plots.
- From October to December staff and volunteers have been planting the 6,497 seedlings that are ready to go into the ground. As of the end of November, we have already planted 4,200 trees!
- Monitoring of restoration plots will begin starting in January to check survival and growth in natural regeneration and planting plots. Seed scattering on other restoration plots will also begin shortly after the planting season.
- Mahalo nui to our Fall/Winter restoration assistants, Sam Jordan and Preston Sheaks, to Leeward Haleakala Watershed Restoration Partnership for training and equipment, and to Native Nursery for taking such good care of our seeds and seedlings.



Above, left to right: Restoration Assistant Preston Sheaks, MFBRP staff Chris Warren, Restoration Assistant Sam Jordan, American Bird Conservancy staff Chris Farmer, and MFBRP AmeriCorps Christa Siedl at Camp Release.

Right: Seedlings grown off site by Native Nursery, a planted `iliahi, and volunteer Lisa Munger planting an ohi`a.



Published Works

MFBRP paper highlighted in 'Elepaio last month:

Jirinec, J., C. L. Rutt, J. A. Kutylowski, A. X. Wang, C. R. Kohley, S. R. Wheeler, H. L. Mounce, and J. Jeffrey. 2013. A Nest in Koa (*Acacia koa*) Successfully Fledged Two 'Akiapōlā'au (*Hemignathus munroi*). 'Elepaio 73(5).

MFBRP manuscript just accepted to Bird Conservation International....keep an eye out for this publication to be available soon:

Mounce, H. L., K. J. Iknayan, D.L. Leonard, K.J. Swinnerton, and J. J. Groombridge. Management implications derived from long term release data: annual survival of the Maui Parrotbill (*Pseudonestor xanthophrys*). Bird Conservation International. *In Press*.

Project Support & Partnerships

Thank you for helping MFBRP plant a forest!



In July, MFBRP launched a “Save the Forest, Save the Birds, Plant a Tree” crowdfunding campaign and was overwhelmed with the support we received. Thank you to all who sponsored trees and helped spread the word. Generous sponsorships and donations allowed MFBRP to buy 1,100 additional trees! These ohia and mamane trees have been planted in a corridor within the fenced portion of Nakula NAR and are on their way to providing native forest bird habitat!

We would like to specially acknowledge supporters who sponsored 50 or more trees:

KARL FRISCH, JAMES PEA & 2 ANONYMOUS DONORS

GRADUATE STUDENTS

Expanding our research capabilities, MFBRP was joined by two graduate students this year, Alex Wang and Peter Motyka. Alex is studying movements of `Akohekohe using radio telemetry in TNC's Waikamoi Preserve. During his first pilot season, seven `Akohekohe were caught and five `Akohekohe were fitted with transmitters, allowing him to follow them from June to August. Alex had several volunteers assisting with field work in order to make this project possible including Araks Ohanyan, Kristi Cook, Heather Geyer, and Joey Leibrecht.

Peter is studying Maui Alauahio use of non-native forests in Kula Forest Reserve. As of July 2013, 2,200 ha of habitat was surveyed and 129 variable circular plot point counts were performed with vegetation sampling. In a subsection of this study site, 60 Maui Alauahio have been color-banded and 16 Maui Alauahio nests were found and observed. Peter had two technicians assisting him, Aaron Spidal and Erick Lundgren, from January until July.

Donation Needs

- Donate HawaiianMiles to MFBRP! Visit <http://www.hawaiianairlines.com/hawaiianmiles/donate-miles/>
- Give the gift of trees! Sponsor native trees that MFBRP will plant in Nakula NAR next year! www.razoo.com/Nakula

Thank you, partners & supporters!

- Mahalo to Hawaii Tourism Authority for supporting the Maui Mauka Conservation Awareness Training program for local tour guides. MFBRP, East Maui Watershed Partnership and Maui Invasive Species Committee hosted 7 trainings this winter!
- Supporters have donated 446,470 HawaiianMiles to MFBRP in 2013! Mahalo!
- We appreciate all of the hard work our volunteers have done during the tree planting season!



Is the I'iwi Officially Endangered? *(continued from front page)*

If the USFWS petition is successful, I'iwi will join 14 other Hawaiian honeycreepers on the U.S. Endangered Species List. To be considered for listing, a species must meet one of five criteria including destruction or modification of its current habitat, decline due to disease or depredation, natural or anthropogenic factors affecting its existence, and inadequacy of regulations. Strong evidence suggests that all of these factors are currently playing a part in the decline of the I'iwi. After the USFWS makes its decision, there will be a public notice and call for review before it is officially listed or not. Typically when an endangered species is listed, a recovery plan is created outlining goals, tasks required, costs, and a timeline to recover the species. While this would not guarantee any dedicated funding from USFWS for the species, listing would provide protection of critical habitat for the species. The areas protected for the benefit of the I'iwi as a result of a listing would benefit many other species native to the same forests.

Recommended further reading:

http://pacificrimconservation.com/PDF_Docs/Planning%20and%20Coordination/Iiwi.pdf

<http://pubs.usgs.gov/of/2013/1150/pdf/of20131150.pdf>



UPCOMING EVENTS

- ▶ **Pint Night for the Birds** at Maui Brewing Company. Friday, December 27. 6-10:30pm.
- ▶ **Select MFBRP as your charity of choice for Giving Tuesday!** www.razoo.com/Nakula
- ▶ **Need to make a tax-deductible donation before January 1?** Donations to MFBRP are tax deductible! Visit www.mauiforestbirds.org/articles/36 to donate.
- ▶ **Looking for a unique holiday gift for your conservation-minded friends?** Give the gift of trees! Sponsor native trees for Nakula restoration effort: www.razoo.com/Nakula