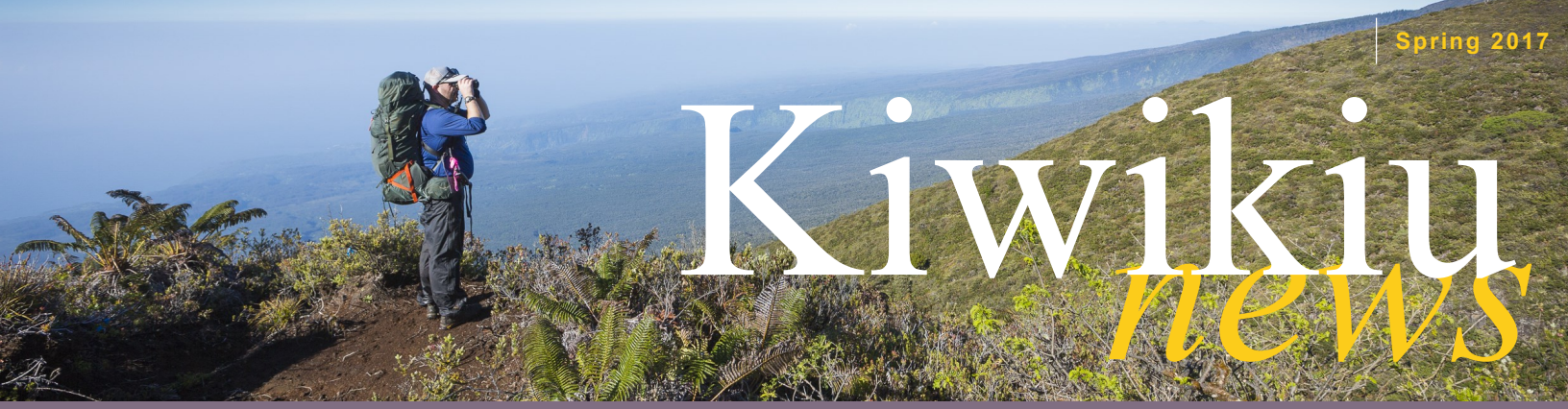


Spring 2017

Kiwikiu news

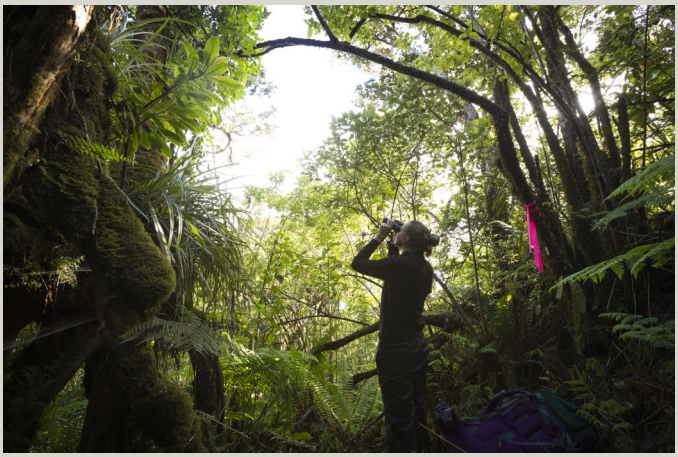
Hawai‘i Forest Bird Surveys

Imagine searching for rare birds in the lush native forests of Haleakalā. After taking a short helicopter ride, you land at around 7,000ft in elevation. With 50lbs on your back and a hiking partner, you spend the next three days backpacking through the dense rainforest. Uluhe ferns poke and pull at you and every 100m or so, you stop to look and listen for birds, jotting down each one. At night, you search for a flat spot to pitch a tent or a couple of trees to hang a hammock. Each morning, you rise before the sun does and continue surveying until you reach the pickup location at 3,000ft. It takes a certain type of person with skills in birds and forest navigation as well as plenty of patience to do these surveys.

The first Hawai‘i Forest Bird Surveys were started 1976-1983 on Hawai‘i Island, Maui, Lāna‘i, Moloka‘i, and Kaua‘i. Transects (straight trails) were installed from *mauka* to *makai*. The surveys used a method called variable circular plot (VCP) point counts, a type of point distance sampling. At each station (100-150m apart), the surveyor stops for eight minutes and records the species, distance, and type of detection (aural or visual) for each bird observed[1].

The main goal of these surveys is to determine the status and trends of native Hawaiian forest birds[2]. Statisticians can use these data to determine species distributions, densities, and population trends[2]. Over 1.1 million bird observations of 90 species from over 600 surveys are recorded in the Hawai‘i Forest Bird Interagency Database[2]. These data have been used to detect declines (e.g. ‘I‘iwi now warrants listing under the Endangered Species Act) and record species that are now extinct (10 species that were rare during the first surveys may now be extinct, e.g. Po‘ouli)[2]. Fortunately, many of the native forest birds appear to be stable or increasing in large, intact native forest above 5,000ft, even while these same species are decreasing/non-existent in lower elevations[2].

Since the original surveys, only transects within habitats of endangered/extinct forest birds have been re-surveyed, usually in high elevation (3,000-7,000 ft), windward forest. The windward east Maui forest was surveyed in 1980, 1992, 1996, 2001, 2006, 2011, and now 2017[1]. Typically, these eight transects were surveyed 1-9 times during the survey year, between March-May. This year MFBRP teamed up with several organizations to survey 29 transects, including leeward Haleakalā (see Avian Update). Of these 29 transects, 20 were a part of the original 1980 survey and six of these “legacy” transects had not been surveyed in at least twenty years. The nine newly created transects were mostly placed in areas that are the focus of forest restoration efforts in order to capture response of the bird community. The 2017 surveys were the most comprehensive forest bird surveys conducted on Maui since 1980.



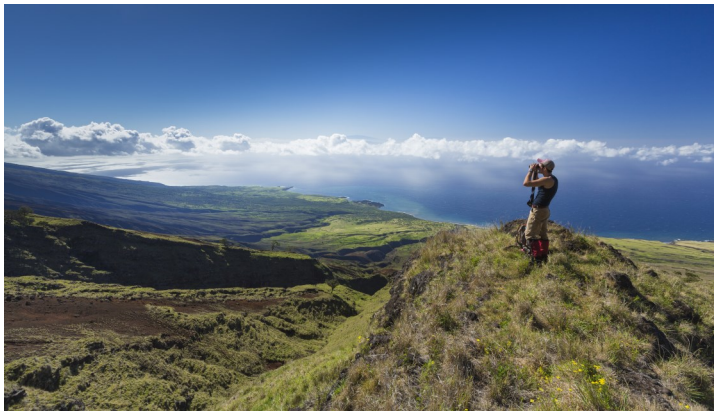
For more information:

[1]Brinck KW, Camp RJ, Gorresen PM, Leonard DL, Mounce HL, Iknayan KJ, Paxton EH. 2012. 2011 Kiwikiu (Maui Parrotbill) and Maui ‘Alauahio abundance estimates and the effect of sampling effort on power to detect a trend. Hawai'i Cooperative Studies Unit Technical Report HCSU-035. University of Hawai'i at Hilo.

[2]Camp, RJ, Gorresen PM, Pratt TK, Woodworth BL. 2009. Population trends of native Hawaiian forest birds, 1976–2008: the data and statistical analyses. Hawai’i Cooperative Studies Unit Technical Report HCSU-012. University of Hawai’i at Hilo.

Scott, JM, Ramsey FL, Kepler CB. 1986. Forest bird communities of the Hawaiian Islands: their dynamics, ecology, and conservation. Studies in Avian Biology 9:1–431.

Avian Research & Management *Update*



Conducting the Hawai'i Forest Bird Surveys (see front) requires an enormous amount of effort to first clear and flag transects and then conduct the point counts. Many transects are in difficult to access areas each with their own set of challenges like dense vegetation, loose footing, helicopter access only, or feral animals. As such, these surveys would not have been possible without the support of the conservation community, landowners, and managers. More than ten different agencies provided support in the form of information, personnel, and/or finances.

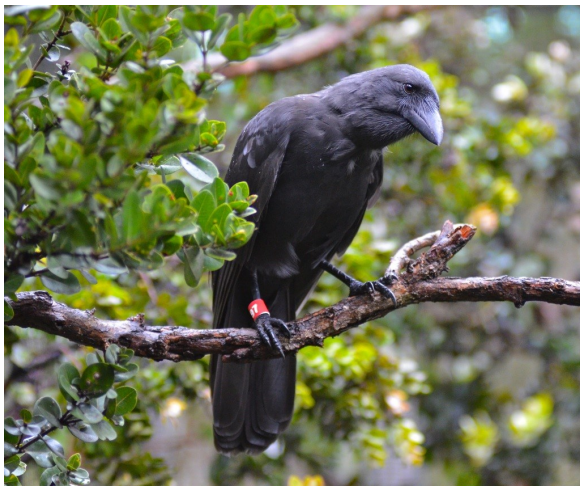
Agencies that assisted include the Department of Land and Natural Resources-Division of Forestry and Wildlife- Forestry, Native Ecosystem Protection and Management, and Nā Ala Hele crews, East Maui Watershed Partnership, Leeward Haleakalā Watershed Restoration Partnership, Haleakalā National Park, The Nature Conservancy, US Fish and Wildlife Service, US Geological Survey, Maui Invasive Species Committee, East Maui Irrigation, Haleakalā Ranch, Ulupalakua Ranch, Department of Hawaiian Homelands, Nu'u Mauka Ranch, and Auwahi Wind. Over 35 people helped including volunteers, Brad Eichhorst, Devon Campbell, Allison Smith, Robin Brooks, Michelle Smith, Christa Seidl, Peter Motyka, Kate Noonan, and Sam Aruch.

'Alalā to be Released in the Wild

Reintroduction efforts for the 'Alalā (Hawaiian Crow) began in December 2016 with the release of five 'Alalā into a Hawai'i Island State Natural Area Reserve. 'Alalā have been extinct in the wild since 2002 and were only found on Hawai'i Island. Over 100 'Alalā are currently being cared for in a conservation breeding program run by the San Diego Zoo Global. The releases are being organized by the 'Alalā Project, a partnership between the State of Hawai'i Department of Land and Natural Resources-Division of Forestry and Wildlife, US Fish and Wildlife Service, and San Diego Zoo Global with support from Kamehameha Schools, Three Mountain Alliance, and Hawai'i Volcanoes National Park.

Preparations are underway for the release of the next group of 'Alalā. Eight birds are now in a flight aviary that was constructed in the State's Pu'u Maka'ala Natural Area Reserve; three more birds will be moved there soon. Project team members feed the birds and closely observe their foraging skills, behaviors, and social interactions. The 'Alalā Project anticipates the release of these birds in the late summer/early fall of this year.

Photo credit San Diego Zoo Global



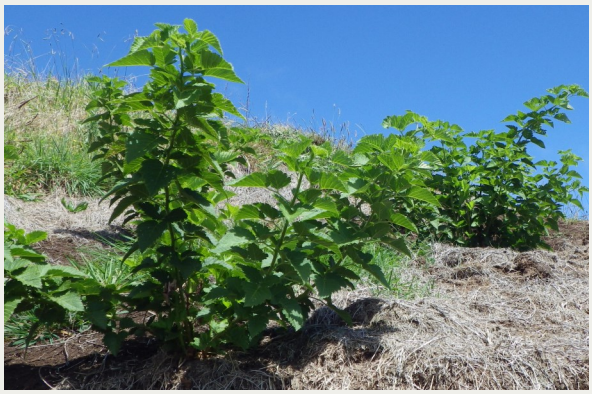
Three of the 'Alalā released in 2016 did not survive and the remaining two were returned to an aviary soon after release. Members of the 'Alalā Project say that the reintroduction of birds raised in a conservation breeding program without the benefit of experienced 'Alalā already in the wild is very challenging. Necropsies (autopsy for animals) on the three 'Alalā released indicate that two of the birds were likely killed by another endangered bird, the 'Io (Hawaiian Hawk). The third bird appears to have died from natural circumstances that led to poor physical condition.

Biologists around the world say releases like this are usually marked with fits and starts, and that reintroduction success is not usually seen before multiple releases are completed and significant time has elapsed. Stay updated at **dlnr.hawaii.gov/alalaproject/** and **facebook.com/alalaproject**.

Nakula Forest Restoration *Update*

10,000 trees were added in Nakula NAR this past winter, totaling over **43,000** planted by MFBRP over three years.

In May, we will be conducting bird counts, controlling invasive weeds, and planting two new species, olomea (*Perrottetia sandwicensis*) and kanawao (*Broussaisia arguta*). In the summer, we will be controlling invasive weeds to prepare for another 10,000 tree planting effort in the fall. Look out for volunteer announcements soon. If you can't volunteer, consider sponsoring a tree to be planted through our **Plant a Tree** program. Mahalo for your support in restoring forest for Kiwikiu on leeward Haleakalā.



ʻĀkala (*Rubus hawaiensis*), pictured right, is an important understory plant and a favorite of the Kiwikiu. We've successfully outplanted cuttings from these raspberry shrubs. Additionally, we have planted seedlings that were propagated at the Native Nursery in Kula, Maui. Due to wet weather, these seedlings have been growing!

The Prolific Kanawao

Surrounded by lush understory and the chatter of native birds and trickling streams, a cheerful Kiwikiu darts through a small clearing and settles on a bright purple cluster of berries. He bounces around while gently pinching each berry with his parrot-like bill searching for the tiniest hint of movement. Inside the berry is a plump larva, likely laid there by a native beetle, which he quickly devours with enthusiasm.

Coveted by the Kiwikiu, this fruit bearing plant is kanawao, endemic to Hawaiʻi and a member of the *Hydrangea* family. Kanawao inhabits all the main Hawaiian Islands and is most commonly found in wet, native forests from 300-2050m in elevation.

The plant's leaves have a leathery appearance and are oblong in shape. There are conspicuous veins on the surface and slightly raised veins on the underside of the leaf. Kanawao flowers are dioecious, meaning that some plants have male flowers and others have female flowers, and can range in color from lavender and aqua to pink and yellow. The plant's fruit can also range in color from purple to maroon. Aside from being a main food source for the Kiwikiu, kanawao also plays host to other creatures such as the Hawaiian Happy Face Spider.

In our efforts to create more native habitat for the Kiwikiu, we will be planting kanawao for the first time during our May trip to Nakula! This is exciting news as kanawao is extremely difficult to propagate. While it geminates very easily in a nursery setting, it rarely reaches maturity. However, at the Olinda Rare Plant Facility, Anna Palomino has successfully grown a number of Kanawao plants that are now mature enough for us to plant in the lush gulches of Nakula.

Article and photo by Zach Pezzillo, Kupu Intern for MFBRP

THANK YOU!

Thank you to our restoration volunteers who have helped in Nakula November-May: Tom Stuart, Andrew Blitz, Eric Hamren, Ben Davis, Chuck Pezzillo, Stephanie Yelenik, Dave Walters, Pat Tretabas, Erin Marquez, Christy Kozama, Sebastian Sayegh.

Project Support & Partnerships

ABA Adds Hawai‘i Birds (Finally!!)

The American Birding Association (ABA) is an internationally recognized, non-profit birding organization representing 13,000 members from the US and more than 40 other countries. On October 28, 2016, the members of the ABA voted overwhelmingly in favor of adding Hawai‘i to the ABA Area, the area covered by the ABA Checklist and the basis for many of the lists kept by birders throughout the US, Canada, and beyond. In the past, the ABA Area was defined in field guides as birds of North America, north of Mexico.

Since the inception of the ABA in 1968, there has been debate on whether to add Hawai’i to the ABA Area, an act requiring a membership vote to change the association's bylaws. The result of the vote will add roughly 114 additional species to the ABA Checklist. Beginning in 2017, birders participating in ABA Big Years (attempts to see as many species in the ABA Area within one year) will be able to count the birds of Hawai‘i in their totals. American Bird Conservancy Vice President Mike Parr said, "We hope that adding Hawai’i to the ABA Area will bring even more visibility and support to this unique place and its irreplaceable bird life."

For more information about the vote and the ABA Area, please visit **aba.org**.

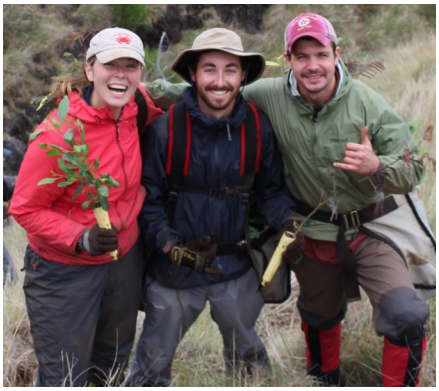
Conservation Awareness New 3-hour Training

Started in 2013, Maui Mauka Conservation Awareness Training connects tourism and conservation professionals. The training provides information about our native ecosystems and the invasive species that threaten them. Through this training, tour companies can incorporate interesting facts about Maui’s beautiful nature into their programs while encouraging support of conservation on Maui. Almost 200 guides from 46 companies have gone through the 1-hour training program. A new 3-hour program is scheduled to occur on May 12th and 22nd. **Sign up for a training today or check it out on Facebook.**

New Maui Nature and Birding Tour Company

Explore Maui Nature is a locally owned and operated by Beth Lariviere. She has a great love for the flora and fauna of the island and donates proceeds from each tour back to Maui conservation efforts. Explore Maui Nature opened in 2016 and offers Maui Birding Tours every Tuesday and Thursday. With a bird checklist in hand and binoculars around your neck, explore Haleakalā National Park and Kealia Pond National Wildlife Refuge.

Contact **exploremauinature.com or info@exploremauinature.com.**



Aloha to Restoration Assistant, **Elyssa Kerr**
E Komo Mai to new Field Associate, **KJ Passaro**

Mahalo to all our volunteers, donors, and supporters. Nine of our volunteers received the **President's Volunteer Service Award:** Chase Alexander, Jason Gregg, Erin Johnson, Stacy Montemayor, Zach Pezzillo, Jason Preble, Michelle Smith, Jason Tappa, and Stephanie Yelenik. This award is given to volunteers who give over 100 hours of their time over a 12-month period. **Zach Pezzillo** received the highest award for volunteering over 400 hours.