ANNUAL REPORT

PACIFIC RIM CONSERVATION
RESTORING BIODIVERSITY

2020

Earlier this year while producing maps for one of our projects, we realized that we could see the results of what we were doing from space. There within the pixels of google earth, were the outlines of the fences that have been build, of the artificial burrows that we installed that now contain translocated seabird chicks, and of the habitat changes that have occurred in these amazing places. It was a profound realization of the visual impact of our work and served as a strong motivator when, like you, were struggling with how to maintain our efficacy in light of the COVID-19 pandemic .

Despite the challenges thrown our way with changing how we work and interact in 2020, we are thankful that we were able to conduct our work relatively uninterrupted during a challenging year. In the following pages we summarize our project results for 2020. We could not achieve these goals without our fantastic partners, generous funders, and dedicated staff and volunteers. We thank everyone who has been involved in our work the past year.

Aloha and Mahalo,

Lindsay Young
Executive Director

Eric VanderWerf
Director of Science

Board of Directors:

Christen Mitchell
Lindsay Young
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PACIFIC RIM CONSERVATION YEAR IN REVIEW

BIRDS

15 bird species we worked with or protected in 2020, of which 8 are endangered locally, nationally, or globally.

281 nests of native Hawaiian birds monitored and protected in 2020 **(139 Laysan Albatross, 18 Wedge-tailed Shearwater, 30 Oahu Elepaio, 94 Red-tailed Tropicbird)**

110 wild birds banded as part of our research in 2020

We translocated **6 species** of Hawaiian seabirds in 2020 to create breeding populations that are safe from climate change and non-native predators: **Black-footed Albatross, Hawaiian Petrel, Bonin Petrel, Tristram's Storm-Petrel, and Newell's Shearwater.**

In 2020 we published two papers in scientific journals, three management and monitoring plans, and many project reports.

ECOSYSTEMS

18 Acres

of habitat restored by removing non-native weeds and replacing them with native plants.

140 Acres

of forest bird nesting habitat protected by removal of non-native rats

PEOPLE

12 Full-time **&** **2** seasonal staff

18 Partners and funders

10 public and professional presentations

7+ media articles

15 research and translocation interns

FUN FACTS:

5 **forms of transportation used to get seabirds from the Northwestern Hawaiian Islands to Honolulu:** (ATV and golf cart and zodiac on Midway, zodiac at Tern Island, 500 miles by ship from Tern, 45 miles by car from Honolulu to JCNWR).

366 **visits by wild Laysan Albatrosses to our social attraction site**

8 **of returning Bonin Petrels to JCNWR**

22 **lbs of fish and squid used per day during translocation season**

1972 **lbs of seafood total used in 2020**

1000+ **miles hiked for conservation work**

1000+ **non-native predators trapped in bird nesting areas**

224 **cans of moist bugs and** **1800** **packets of moist bugs**

9000 **individual moist bugs (crickets, worms, larva) for Laysan duck diets (mmmm!)**

450 **examples found of seabird restoration efforts occurring worldwide since the 1970s**

22 **Hours of auditory surveys for Hawai'ian Petrel and Newell's Shearwater**

NO NET LOSS:

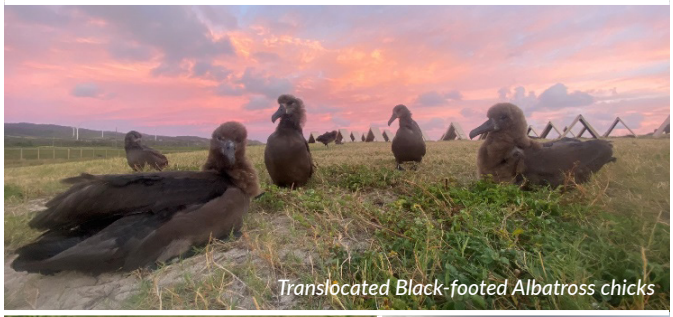
James Campbell National Wildlife Refuge Seabird Translocation Project

PARTNERS: U.S. Fish and Wildlife Service, James Campbell National Wildlife Refuge (JCNWR), Midway Atoll National Wildlife Refuge, Papahanaumokuakea Marine National Monument, U.S. Navy, and Hawaii Department of Land and Natural Resources .

Project website: www.islandarks.org

Moku Manu Offshore islet translocation team

Returning translocated Bonin Petrel pair



Translocated Black-footed Albatross chicks

Returning Laysan Albatross chick with wild adults

Wild Laysan Albatross nest inside translocation site

The goals of the No Net Loss initiative are twofold: 1) to protect as much seabird nesting habitat in the main islands as is being lost in the Northwestern Hawaiian Islands because of the effects of climate change; and 2) to establish new breeding colonies of vulnerable seabird species that are safe from sea level rise and non-native predators. We do this by building predator exclusion fences, removing invasive predators, and then attracting or translocating birds into these protected areas. We currently are focusing these efforts at James Campbell National Wildlife Refuge (JCNWR) on Oahu and have begun working on four priority species that are most vulnerable to sea level rise: Black-footed Albatross, Laysan Albatrosses, Bonin Petrel, and Tristram's Storm Petrel, all of which have a high proportion of their global population nesting in a few locations just a few meters above sea level.

From 2015- 2017, we translocated 51 Laysan Albatross chicks (raised from eggs) from the Pacific Missile Range Facility on Kauai (learn more here), where albatross nest close to a runway and are an aircraft collision hazard. A total of 47 Laysan Albatross chicks successfully fledged as a result of this program, and the first birds started returning as adults in 2018; we now have four Laysan Albatrosses regularly visiting the site from previous translocation cohorts. From 2017-2020, we moved 89 Black-footed Albatross chicks from Midway and Tern Island to JCNWR, of which 85 fledged. In 2018-2020, we moved 181 Bonin Petrel chicks and 112 Tristram's Storm-Petrel chicks from Midway and Tern Island, of which 180 and 87 fledged, respectively. In 2019 we saw the first individual Bonin Petrel and Tristram's Storm-Petrel return after just one year, and in 2020 we resighted up to 8 returning Bonin petrels returning, including male-female pairs in burrows.

In 2020, we moved some of the Tristram's Storm-Petrels and Bonin Petrels to predator-free offshore islets (Kekepa and Moku Manu) a few days before fledging in hopes that they will imprint on those sites and return to them as adults. We continued to employ three social attraction programs using solar-powered sound systems inside the predator fence, one for Black-footed Albatross, one for Laysan Albatross, and the third for Tristram's Storm-Petrels and Bonin Petrels combined. The Black-footed Albatross and Laysan Albatross systems also included decoys. This season there were 366 documented visits and one nesting attempt by socially attracted LAAL. Wedge-tailed Shearwaters have established a colony inside the predator fence, likely having been attracted by the sound systems, with 30 nests in 2020. The LAAL sound system also plays Red-tailed Tropicbird calls, and we observed this species flying over the fence on 25 occasions in 2020 with up to three birds present. When this project began in 2016 there were no seabirds of any kind visiting JCNWR. In 2020, two seabird species nested on the refuge, Laysan Albatross and Wedge-tailed Shearwater, and four others are beginning to visit regularly and hopefully will begin nesting soon. We plan to do one more year of translocations with BFAL, BOPE, and TRSP, and to continue the social attraction and monitor the return and nesting of all species.

NIHOKU ECOSYSTEM RESTORATION PROJECT

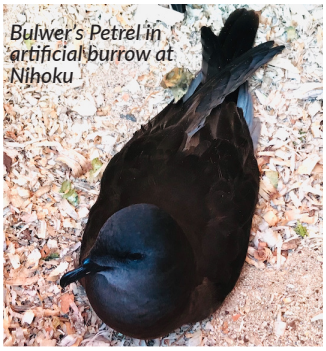
PARTNERS: Kauai Endangered Seabird Recovery Project, U.S. Fish and Wildlife Service, American Bird Conservancy, Hawaii Department of Land and Natural Resources, National Fish and Wildlife Foundation, and National Tropical Botanical Garden.

Project website: www.nihoku.org

Measuring wing chord of a Hawaiian Petrel chick

Holding a Newell's Shearwater chick for feeding

Newell's Shearwater chick



Bulwer's Petrel in artificial burrow at Nihoku

A returning translocated Hawaiian Petrel

Created in 2012 and located at Kilauea Point National Wildlife Refuge on Kauai, the Nihoku Ecosystem Restoration Project's mission is to establish the first fully protected colony of Newell's Shearwaters and Hawaiian Petrels in Hawaii. These are Hawaii's only endemic seabird species and are both listed under the Endangered Species Act of 1973. Causes of their declines include habitat degradation, invasive plants, predation by feral cats, pigs, rats, and introduced Barn Owls, and collisions with power lines and structures exacerbated by light attraction.

To create a protected colony of these species, we built a 2400 foot-long predator-proof fence enclosing approximately eight acres at Nihoku in late 2014, and we eradicated all mammalian predators shortly afterwards. Since 2015, we have cleared non-native vegetation from 75% of the fenced area (~4 acres) and planted more than 16,000 native plants representing 30 species to begin restoring the habitat.

From 2012-2020, potential source colonies of Newell's Shearwaters and Hawaiian Petrels were located by the Kauai Endangered Seabird Recovery Project at locations around Kaua`i. In 2020, 20 Newell's Shearwaters and 20 Hawaiian Petrels were translocated into the site and all but one of the Hawaiian Petrels fledged. Since translocation began in 2015, 194 listed seabirds have fledged from this site for a success rate of over 98% for the project. With 2020 being the final year of translocations for this project, we have now moved onto the post-translocation monitoring phase.

In anticipation of adult birds starting to return to the site, intensive monitoring was undertaken with both visual, auditory and report camera surveys every two weeks for the duration of the breeding season. Five translocated Hawaiian petrel adults were found int eh burrows, including two pairs who visited for several weeks during the breeding season. Visual surveys found Hawaiian Petrels transiting the site frequently as well as Newell's Shearwaters. Camera monitoring revealed that Bulwers Petrels have been using the site and were observed entering and exiting burrows on multiple occasions. It is hoped that 2021 will mark the first breeding of Hawaiian Petrels at Kilauea Point.

OAHU ENDANGERED SEABIRD SURVEYS

PARTNERS: Hawaii Division of Forestry and Wildlife, Oahu Army Natural Resources Program, Conservation Metrics, National Fish and Wildlife Foundation

Hawai'i's only two endemic seabirds, the Newell's Shearwater and Hawaiian Petrel, are listed as threatened and endangered, respectively, under the Endangered Species Act. Threats to both species include light attraction and fallout, collisions with power lines and other structures, predation by non-native animals, and habitat degradation. Both species were assumed to be locally extinct on the island of O'ahu, despite limited survey effort and fossil evidence indicating that extensive colonies existed post-human contact. Since 2016, we have deployed up to 15 song meters annually in locations where modelling predicted the habitat would be suitable and obtained 15,014 recording hours. Additionally, since 2018, we have conducted 234 hours of auditory ground surveys. We have detected Newell's Shearwaters regularly at five sites; two on the leeward slopes of Mount Ka'ala, and three in the Ko'olau Range at Kaluanui, Poamoho, and 'Opae'ula.

We also detected Hawaiian Petrels at three sites on Mount Ka'ala, and at Poamoho. All sites where we detected birds were in nearly intact native forest with very steep slopes, similar to areas where these species nest on Kauai. Birds were detected on multiple nights during the breeding season, sometimes calling up to 18 times in a single night. In 2020, we detected Newell's Shearwaters during auditory ground surveys at Poamoho and Mount Ka'ala and we detected Hawaiian Petrels at Poamoho. Evidence suggests that, at a minimum, both species are regularly prospecting on O'ahu, and could potentially be breeding on the island. If they are breeding, these individuals could represent a missing link in the population connectivity of both species across the island chain. Protecting any remnant populations would be of high conservation value given their recent catastrophic population declines.

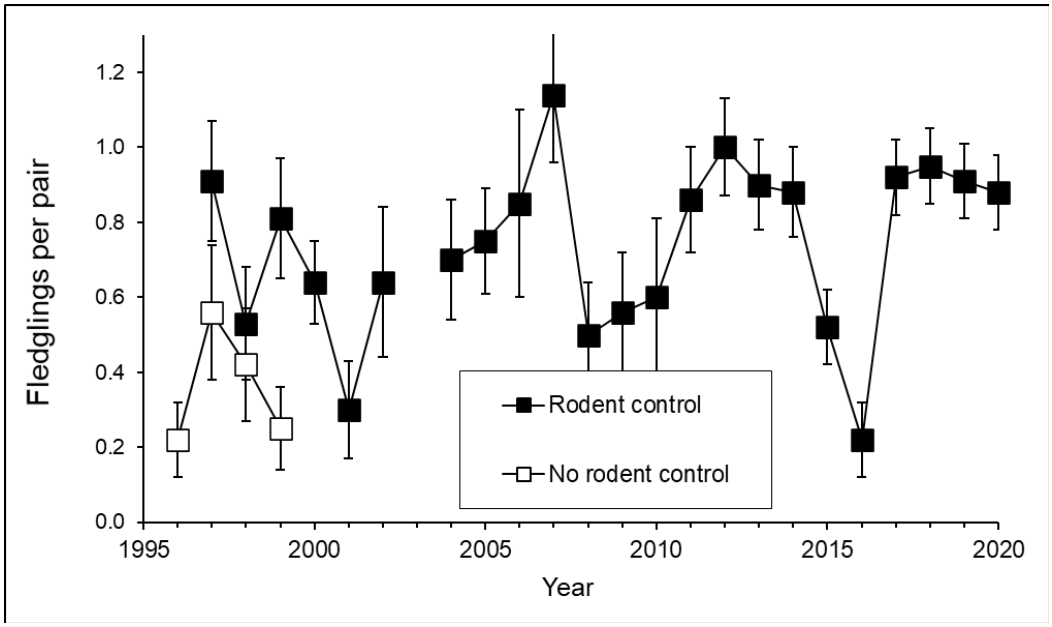
Mount Ka'ala (left) and Poamoho (right) where NESH were detected in 2020 during ground surveys.

OAHU ELEPAIO MONITORING AND RAT CONTROL

PARTNERS: Hawaii Division of Forestry and Wildlife | **Project website:** www.elepaio.org

Two 'elepaio fledglings with their father in Wailupe Valley.

2020 was the 25th year of 'elepaio monitoring in southeastern O'ahu. To maximize the conservation benefit of the project, in 2020 the goal was changed to place more emphasis on controlling rats in a larger number of elepaio territories, with a lower level of monitoring in each territory. Rats were controlled in 34 territories, of which 31 contained an 'elepaio breeding pair, two contained single males, and one was vacant. In 2020, a total of 23 nests were found in 17 territories, of which 10 successfully fledged chicks, 9 failed, and 4 were abandoned before eggs were laid or had unknown outcome. Average nest success was thus 53% (10 of 19), which was slightly below the long-term average of 61%. Productivity averaged 0.88 fledglings per pair, above the long-term average of 0.71. A total of 600 rodents were captured in 24 Goodnature traps and 99 snap traps.



Rat control has been an effective method of increasing reproduction of Oahu Elepaio.

LAYSAN ALBATROSS MONITORING AND EGG FOSTERING

PARTNERS: Hawaii Natural Area Reserve System, US Navy, National Fish and Wildlife Foundation, Pono Pacific

New Kuaokala predator exclusion fence protecting 55 Laysan Albatross nests.

Mongoose stalking an albatross chick prior to predator fence construction at Kuaokala

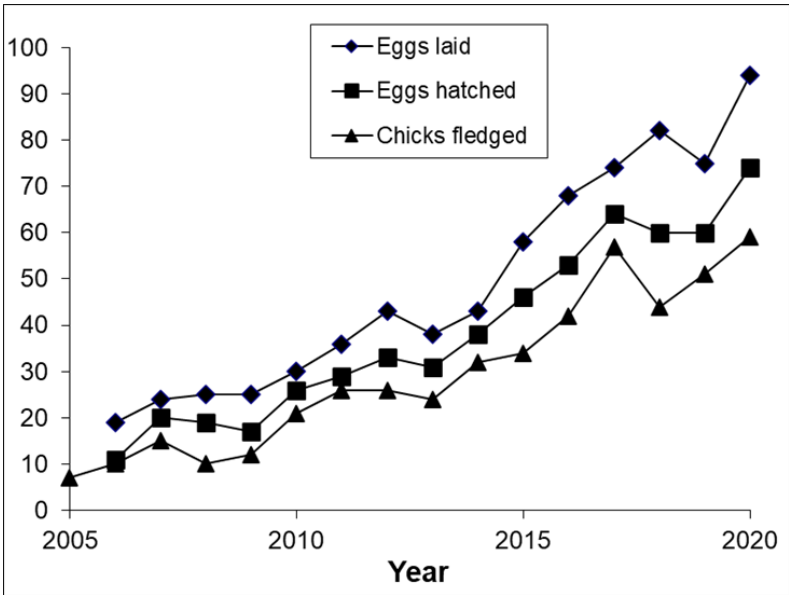
Laysan Albatross foster parent pair at Kaena Point

2020 marked the 17th year in which we have monitored Laysan Albatrosses on Oahu. In the 2019-2020 season there were 84 albatross nests at Kaena Point Natural Area Reserve and 53 nests at Kuaokala Game Management Area. The number of albatross chicks fledged at Kaena Point in 2020 was slightly below normal (48), and at Kuaokala mongooses killed 30 of 39 chicks despite intensive trapping efforts. Even the bones were gnawed until they were gone, leaving no trace of the predation. To rectify this problem, we obtained funding to build a predator exclusion fence at Kuaokala to protect the albatross colony from mongooses. The fenceline was cleared by the Hawaii Division of Forestry and Wildlife and constructed by Pono Pacific and completed in March 2020; the fence is 2,000 feet long and encloses 4 acres of habitat. All non-native mammalian predators were removed from the inside, and we are excited to have created a new, safe, breeding colony for this species for future years.

Additional efforts were made in 2020 to bolster the albatross breeding population at Kaena Point by bringing 20 eggs from a colony at the Pacific Missile Range Facility (PMRF) on Kauai, where Laysan Albatrosses nest next to an airport runway. In order to reduce the bird strike hazard to aircraft at PMRF, the U.S. Navy removes the eggs, and since 2008 we have placed these eggs in foster nests on Kauai and Oahu. We do this by candling eggs, which is shining a bright light through the shell to illuminate the interior and determine if the embryo is alive. If the egg in a nest at Kaena Point is infertile or the embryo has died, we replace it with a live foster egg from PMRF. Albatross cannot tell the difference between the eggs and always accept a foster egg. In 2020, we placed 17 eggs in foster nests on Kauai and 20 eggs in foster nests at Kaena Point.

EFFECTS OF PREDATOR CONTROL ON REPRODUCTIVE SUCCESS OF RED-TAILED TROPICBIRDS

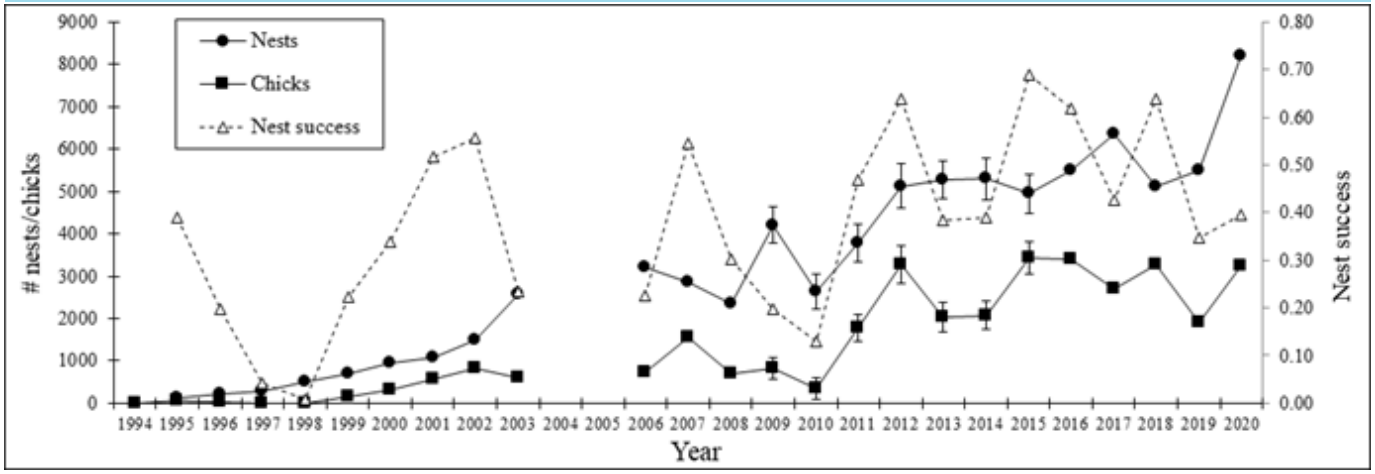
For the 15th year in a row, we controlled predators to protect a nesting colony of Red-tailed Tropicbirds in southeastern Oahu. We used a variety of traps to remove mongooses and rats and we monitored nesting success of tropicbirds. This management has been highly effective and has allowed this small, struggling colony to flourish and grow. It is now the third largest Red-tailed Tropicbird colony in the main Hawaiian Islands and may serve as a source of birds to recolonize other sites on Oahu. It also has become valuable as a study site for this species because it is so easily accessible. We have worked with partners from the U.S. Geological Survey Southwest Fisheries Science Center and San Jose State University to track Red-tailed Tropicbirds at sea to better understand their foraging behavior, marine habitat use, and potential risk from offshore wind energy projects. There were 94 Red-tailed Tropicbird nests in the colony in 2020, which is the most yet in any year (Figure 1), indicating the colony is continuing to grow. Seventy-four of the eggs hatched (79%) and 59 of the chicks fledged, for an overall nest success rate of 63%, which is typical of this colony when predators are absent or controlled. The peak in egg laying was in February in 2020, which was a little earlier than in most years. A large mahalo to a generous donor from the local community who supported this project in 2020.



Predator control has allowed a struggling colony of Red-tailed Tropicbirds in southeaster Oahu to flourish and increase over the past 15 years.

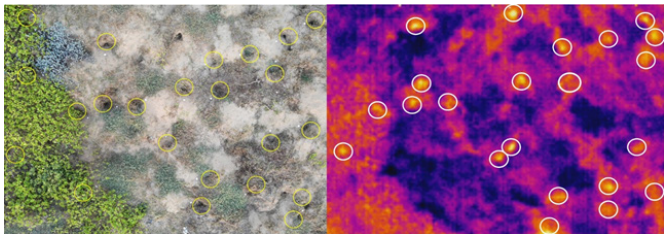
WEDGE-TAILED SHEARWATER MONITORING AT KAENA POINT, OAHU

PARTNERS: Hawaii Natural Area Reserve System



We have been monitoring Wedge-tailed Shearwaters at Kaena Point Natural Area Reserve, in collaboration with the Hawaii Natural Area Reserve System, since 2006. Protection of Kaena Point from off-road vehicles allowed shearwaters to begin recolonizing the site beginning in the early 1990s. Predator control helped improve nesting success and allowed the colony to grow more rapidly starting in 2000. Construction of a predator-exclusion fence in 2011, the first one in Hawaii, allowed the population to increase dramatically, and it has remained high ever since. In 2020, we estimated that 3,247 chicks were raised from 8,190 nests.

In 2020 we also started using the Kaena Point Wedge-tailed Shearwater colony as a test case for new techniques for expanding our capability to detect and monitor seabird colonies. Burrow-nesting petrels and shearwaters include some of the seabird species most vulnerable to extinction and species with some of the largest knowledge gaps. Much of this is due to their cryptic, nocturnal habits and their tendency to nest in underground burrows that are often in inaccessible locations. Locating nests, or in some cases even entire colonies, can be difficult. The use of unoccupied aerial vehicles (drones) in conservation biology has accelerated in recent years, but few studies have examined the potential to combine traditional visible spectrum photography with infrared thermal imaging to survey wildlife. We tested the use of thermal imaging cameras mounted alongside traditional RGB cameras to detect the heat signatures of cryptic burrow-nesting seabirds. We conducted six test flights of a quad copter drone with a dual sensor RGB/infrared camera over survey plots in a Wedge-tailed Shearwater colony prior to sunrise at Kaena Point, Oahu, Hawaii. Within one hour of the flights, we then manually counted the burrows in each plot and confirmed their contents to verify the drone results. Initial results indicate the thermal images taken by the drone were able to detect the presence of birds in burrows by the signature of heat venting from the burrow entrance. In 2021, we plan to ramp up this study across multiple habitats and develop an open-source AI model to be able to detect thermal images adequately.



Sample image from thermal drone trials showing Wedge-tailed Shearwater burrows in regular RGB imaging (left) and using thermal imaging (right)

RED-FOOTED BOOBY SOCIAL ATTRACTION PROJECT AT MARINE CORPS BASE HAWAII

PARTNERS: Marine Corps Base Hawaii (MCBH), Oikonos Ecosystem Knowledge, US Fish and Wildlife Service, Ducktrap Woodworking

Color band on a Red-footed Booby at MCBH.

Decoys at MCBH used to attract boobies to nest in safer locations.

We evaluated the efficacy of using social attraction (decoys and audio playbacks) to encourage Red-footed Boobies (RFBO) to relocate from nesting trees scheduled for removal inside the training area at Marine Corps Base Hawaii (MCBH) to two areas outside the impact area where they would be safer. This project was initiated by MCBH to reduce the threat to the RFBO nesting colony from wildfires started by training activities in response to the spread of invasive kiawe trees that have encroached on fuel breaks. In April 2018, we deployed 75 RFBO decoys and a solar-powered sound system at each of the two social attraction sites chosen by MCBH staff. The first site (Site 1) was located inside Ulupa'u Crater in sight of the existing RFBO colony but across the firebreak road in an area with kiawe and koa haole trees. The second site (Site 2) was located on the outer slope Ulupa'u Crater facing to the north in ironwood and mixed shrub habitat. We monitored activity of RFBO at each site during monthly visits from April 2018 to August 2020 and with remote cameras that recorded an image every 5 minutes throughout the project period. To document movements of birds roosting in the kiawe trees identified for removal, we captured and placed colored leg bands on 30 Red-footed Booby adults roosting in the selected trees. Monthly visual surveys were less useful than anticipated for monitoring RFBO activity because the birds were shy and usually flushed as we approached and before we reached the site. The remote cameras were effective for monitoring RFBO activity and showed that the amount of visitation increased each year and that there was a peak in visitation from April-June of each year. Although no nesting has occurred yet, the amount of visitation at Site 1 is encouraging and it is possible that RFBO will nest at Site 1 within a few years. It may be difficult to attract RFBO to Site 2 because it is located farther away, is not visible from the current colony location, and the northern aspect and dense tree cover prevented the solar-powered sound system from operating during the winter months. It is too soon to tell if the project will be successful at achieving the primary goal of attracting boobies to a different location. Continued monitoring of Site 1 is recommended to determine if the amount of RFBO visitation continues to increase and whether any nests are present, and to maintain the sound system and decoys.

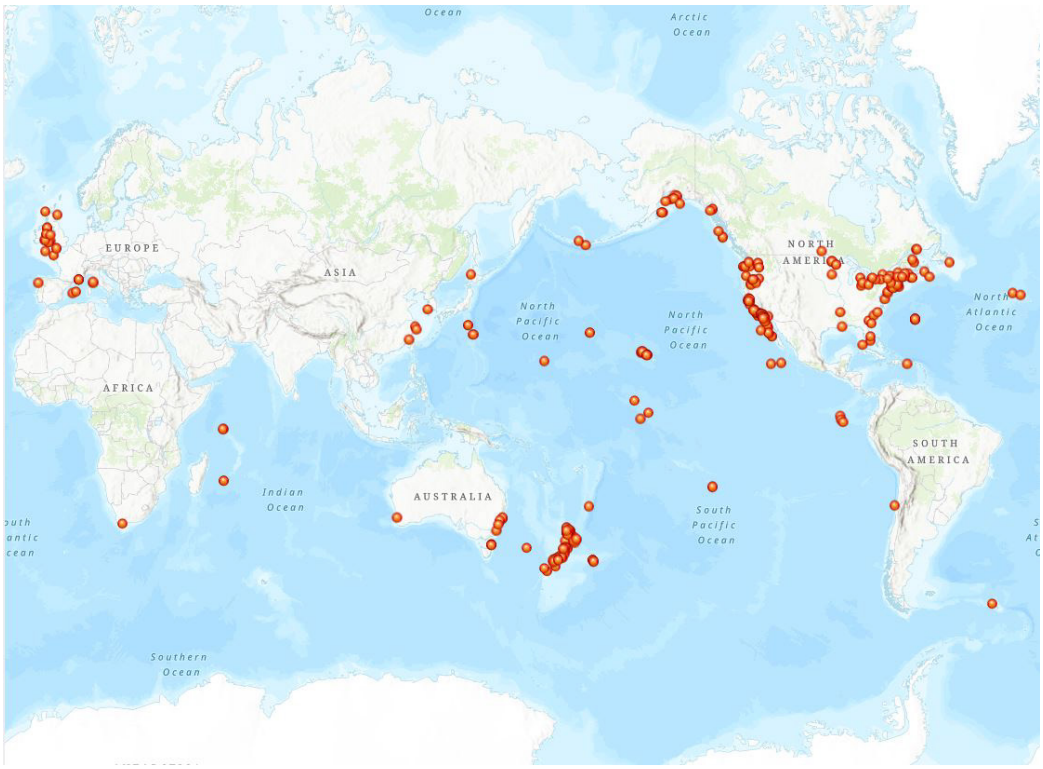
SEABIRD RESTORATION DATABASE

PARTNERS: The Nature Conservancy, National Audubon Society, Northern Illinois University, the New Zealand Department of Conservation, Museum of New Zealand Te Papa Tongarewa

Project website: www.seabirddatabase.org

Team hard at work

Thanks to the generous support from the Packard Marine Bird Program, and the contributions of seabird experts from the United States and New Zealand, we built the Seabird Restoration Database, which seeks to improve knowledge transfer of active seabird restoration techniques among practitioners and enhance seabird conservation by documenting the methods and outcomes from social attraction and translocation activities applied to restore and recover seabird populations around the world. With the help of an internship team, in 2020 we collated and reviewed 462 published articles and reports and communicated with nearly 300 experts to determine the species, locations, methods, and outcomes for active seabird restoration efforts globally. To date, the database contains 456 examples of social attraction and translocation activities for 110 seabird species. In 2020 we also built a website aimed at communicating project goals and early outcomes of the research to the public: seabirddatabase.org. In 2021 we will continue our research. Once completed the results will be published, including in a new online database.



Locations of the 456 restoration activities

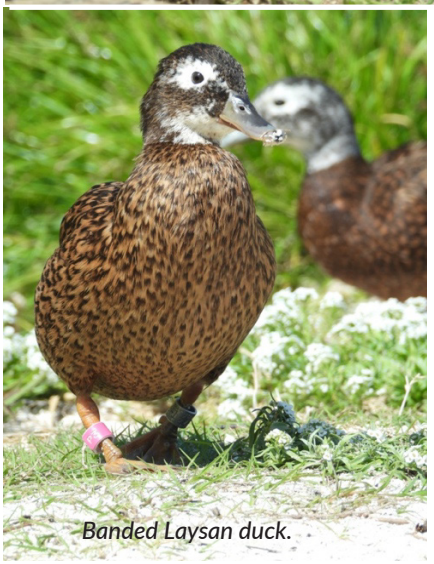
MIDWAY ATOLL SEABIRD PROTECTION PROJECT

PARTNERS: The US Fish and Wildlife Service, Midway Atoll National Wildlife Refuge, Island Conservation

Project website: https://www.fws.gov/refuge/Midway_Atoll/Seabird_Protection_Plan.html

Duck capture device AKA tunnel of love being used on Eastern Island.

Laysan duck duckling hunting flies



Banded Laysan duck.

The U.S. Fish & Wildlife Service (USFWS), one of the co-trustees of Papahānaumokuākea Marine National Monument, planned to undertake a non-native house mouse (Mus musculus) eradication from Midway Atoll in the summer 2020. As part of this project, non-target species must be protected from the poison bait used to eradicate mice. Protection of non-target waterbirds, shorebirds, and landbirds would require capturing and holding birds in aviaries prior to rodenticide application on Sand Island and until residue levels in the environment have reached safe levels allowing release of the birds after the operation. The extent of the project is beyond the capacity of the USFWS's staff, and PRC was asked to help oversee the captive care component for native bird species during this project. From February- June, a total of 430 adult Laysan Ducks were captured and had their wings clipped in anticipation of a within-atoll translocation as part of the non-target mitigation plan for the Midway Seabird Protection Project. 411 of those birds were transported via zodiac in pet carriers to Eastern Island, and the remaining 19 were kept in aviaries on Sand Island. Trials with adults showed that they were extremely difficult to house in captivity and that supplemental feeding and monitoring the ducks in the wild with wings clipped on Eastern Island may be the best solution for their health. However, due to the COVID-19 pandemic, the mouse eradication was postponed and the ducks were returned to Sand Island until operations are able to resume.

INTERNATIONAL PROJECTS:
Mexico, Palau, Kiribati

As part of our mission to expand our work across the Pacific and to other island ecosystems, we engaged in three international projects in 2020 to assist other non-profit organizations with their work and plan for upcoming new projects with PRC.

Kiritimati (Christmas Island) and the Bokikokiko (Christmas Island Warbler)

Working with the Nature Conservancy and government of Kiribati to plan for the translocation of Bokikokiko (Christmas Island Warbler) to Palmyra Atoll. In 2005, we performed bird surveys on the islands of Palau, and in 2020 we worked with the Palau National Museum to analyse bird survey data. The analysis and report were completed and surveys will be repeated in 2022 to compare the data.

Laysan Albatross on Isla Guadalupe, Mexico

PRC and GECI team members on Isla Guadalupe in 2020

Finally, we developed a partnership with Grupo de Ecologia y Conservacion de Islas (GECI), to prepare to translocate Black-footed Albatrosses to Guadelupe Island, Mexico in early 2021. Establishing a Black-footed Albatross colony on higher elevation islands and expanding their breeding range would help to secure the future of the species. As part of this partnership, team members from PRC spend time with GECI on Island Guadalupe, the translocation site, to help prepare the infrastructure and train staff. Stay tuned for the first international seabird translocation in early 2021

RESEARCH

We continue to actively collect data on all our projects with the goal of publishing in the peer reviewed literature. Current research projects not already mentioned above and being written up for publication include:

- *Translocations of Newell's Shearwaters and Hawaiian Petrels to create a new colony*
- *Designing predator proof fences for Hawaii: Results of a survey of sanctuaries in New Zealand and Hawaii and ground testing of new fence designs*
- *Results of mammalian eradications within three predator exclusion fences in Hawaii*
- *Demography, survival, and at-sea habitat use of Laysan Albatross*

2020 peer-reviewed publications (all available for download on our website):

De Wit, L., Zilliacus, K., Quadri, P., Will, D., Grima, N., Spatz, D., Holmes, N.,Tershy, B., Howald, G.R., Croll, D. (2020). Invasive vertebrate eradications on islands as a tool for implementing global Sustainable Development Goals. Environmental Conservation. 47(3): 139-148. doi:10.1017/S0376892920000211

VanderWerf, E. A. 2020. Oahu Elepaio (Chasiempis ibidis), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.

FINANCIAL INFORMATION

DIRECT REVENUE

$1,652,285

DIRECT EXPENSES

$1,341,343

FINANCIAL HEALTH

Assets
$701,129.74

Liabilities
$112,000.00

Net Assets
$589,129.74

FUNDERS

SUPPORTERS:

Adam Zahm
Amy Haus
Andy McCormick
Ann Noll
Anna Liem
Anna Wolfram
Barbara Renner
Byron Chin
Candi Guidry
Carol Titcomb
Carol Allen-Levangie
Cathy Granholm
Christine Lonie
Conservation Council for Hawaii
Dan Rizzolo
David Fitzpatrick
David Burke
Deborah Zysman
Denise Dutcher
Denise Allen
Dennis Robinson
Diane Buckley
Donna Chakravarty
Doris and Kenneth Nagatani
Douglas Thompson Foundation
Edgar Parker
Eduardo Ayala
Gregory Honcharevich
Honolulu Zoological Society
James Scott
Janelle Anderson
Jennifer Herrera
Jenny Marion
Jeralyn Keeney
Joan Spencer
John Prewet
Julie Halash
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Kathy Chadsey
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Kira Krend
Kyle Kenyon
Larry Henning
Larry Dittmar
Laura Hobson
Leslee Michelsen
Linda Powell
Lois Crozer
Lynn Yamaoka
Marie Powers
Meredith Speicher
Michele DuMond
Michelle Milburn
Michelle Jordan
Pamela Skaar
Patricia Kupchak
Paul Heiple
Paul Dittmar
Phyllis Kenyon
Rebecca Eldredge
Ronald Butler
Ronald and Ivy Timpe
Scott Hall
Sheila Conant
Susan Schott
Taylor Walsh
Tracie Kenyon
Trump resistance account

2020 PARTNERSHIPS AND COLLABORATORS