

“Insurance” Against Extinction for U.S.’s Rarest Duck

The Northern Hemisphere’s rarest waterfowl, the Laysan duck, is being experimentally restored to rat-free islands within the National Wildlife Refuges. In a joint effort led by the U.S. Fish and Wildlife Service and the U.S. Geological Survey’s Pacific Island Ecosystems Research Center, 22 endangered Laysan ducks were released at Midway Atoll NWR. The endangered ducks were transported by sea 350 miles from the last remaining wild population on Laysan Island in the Hawaiian Islands NWR (see map). The new arrivals joined birds from the first successful translocation to Midway last year.

“Initiating a second population is a major step forward in the recovery of the Laysan duck,” said Dr. Holly Freifeld, biologist for the USFWS Pacific Islands Fish and Wildlife office. “This project has been enormously successful so far. The high rate of survival and early reproduction in the first group of ducks released at Midway in 2004 suggests that we’re doing this right, in terms of both habitat restoration and translocation methods.” The Midway Atoll NWR comprises three separate islands, Sand, Eastern, and Spit, two of which were chosen as sites for this year’s release (see map).

Island ducks, are endangered worldwide, but the re-establishment of a second or “insurance” population at Midway greatly reduces this species’ risk of extinction. Threats to island ducks include catastrophes such as hurricanes, tsunamis, disease outbreaks, habitat loss, and accidental introductions of nonnative animals, such as rats. “This critical second translocation will allow us to double the founding population at Midway, improve the sex ratio, and release birds in newly restored habitat on Eastern Island,” said Dr. Michelle Reynolds, project leader for the Laysan duck translocation. “There are now Laysan ducks on three islands – for the first time in hundreds of years.



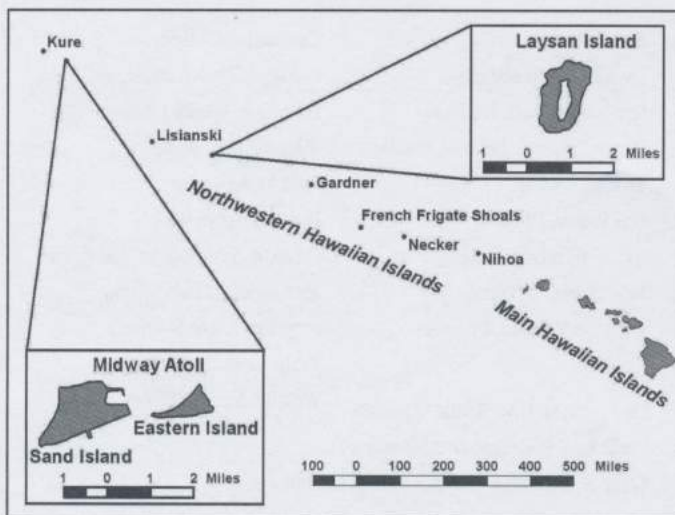
Photo: John Klavitter

After six months of field research during the breeding season on Laysan, candidate birds were chosen based on weight, sex, health, age, and family history (a single duckling from each brood). On the night of Oct. 4, 22 birds were captured for transport using hand nets, headlamps, and radio telemetry. Each bird was supplied with its own transport box and the ducks traveled in an air-conditioned cabin aboard the American Islander M/V, a ship chartered by the USFWS. The seafaring birds were fed, watered, and treated by biologists and USGS veterinarian Dr. Thierry Work during the transport. All arrived safely at Midway on Oct. 7.

Upon their arrival at Midway Atoll, the birds were transported to aviaries on Sand and Eastern Islands. In the aviaries, ducks were fed local insects and seeds from Midway, and monitored closely prior to release. Radio transmitters and leg bands were attached to each bird so that their identity and behavior can be monitored after release back into the wild. Between Oct. 7-19, 16 ducks (9 males and 7 females) were released on Eastern Island, and another 6 (5 females, and one male) were released on Sand Island (see Map).

Biologists are using radio tracking to determine survival, movements, and reproduction. They have already begun to see movement between the two islands of Midway Atoll; two adult males and a juvenile hatched on Midway flew over two miles from Sand Island to a freshwater seep on Eastern Island. Inter-island movement is good news because it ensures some mixing among ducks at the two release sites. All newly released birds are active with many seen swimming, bathing, and foraging.

This year’s translocation effort expanded to include assistance from the Wildfowl and Wetlands Trust (U.K.) and the State of Hawai’i Division of Forestry and Wildlife, along



Map Courtesy of USGS

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with numerous volunteers and support from both the public and private sectors including the National Fish and Wildlife Foundation.

Nigel Jarrett and Jimmy Breeden have been camping on Eastern Island since October 5, caring for the ducks in the aviaries and carefully monitoring them after their release. "I never imagined I'd see free-living Laysan teal. It has been the highlight of my career to help ensure this species will continue to exist," said Nigel, an aviculturist, with more than 20 years of experience with rare and endangered birds for the Wildfowl and Wetlands Trust in England. Jimmy Breeden spent the last 6 months studying the ducks on Laysan, and then went directly to Eastern Island to conduct post-release monitoring.

In preparation for the arrival of U.S.'s rarest duck, refuge staff at Midway and more than 40 volunteers led by Refuge Biologist John Klavitter, have invested more than two years of hard work (10, 000+ volunteer hours) in habitat restoration. Preparation included the removal of hundreds of nonnative ironwood trees and hundreds of thousands of invasive golden crown-beard plants. On Sand Island, staff excavated nine shallow freshwater seeps, constructed ten aviaries, and planted more than 5000 bunchgrass, sedge, and other native plants to provide cover, forage, and nesting habitat. Eastern Island's site preparation included the excavation of two shallow freshwater seeps, construction of 6 aviaries, removal of thousands nonnative plants, and propagation and planting of native vegetation.

To date, 19 of the 20 Laysan ducks translocated in 2004 are thriving. One fatality occurred in December 2004 when a male duck suffered head trauma caused by interaction with an aggressive Laysan albatross. Five of the six females brought to Midway in 2004 nested prior to their first birthday, surprising everyone involved with the project since on Laysan, the ducks typically wait to nest until their second year. The five nesting hens collectively produced more than 62 eggs resulting in 10 new fledged juveniles. The breeding season on Laysan typically wanes by July, but on Midway new duckling broods were produced in August and October. The latest population count includes 4 new ducklings, hatched on Midway last week. Midway's total population has climbed to 55 Laysan ducks.

The Laysan duck was widely distributed across the Hawaiian Islands before the introduction of non-native rats. After the arrival of mammalian predators to the islands, the birds disappeared from island after island. Prior to the experimental translocations, the Laysan duck had the smallest geographic range of any duck species worldwide (less than 4 sq. mi). Only one isolated population of approximately 500 birds remained on Laysan Island. In the nineteenth century and early 1900's, bird poachers, guano miners, and introduced rabbits devastated the flora and fauna of Laysan, leading to the extinction of three endemic landbirds (Laysan rail, Laysan honeycreeper and the Laysan millerbird). The Laysan ducks reached the brink of extinction with an all-time low population of 11 birds in 1911 before the rabbits were eliminated. "These island ducks do not migrate or disperse from Laysan Island, so wild translocation is needed to restore the species to a larger range" explained field biologist Mark Vekasy.

Midway Atoll National Wildlife Refuge was chosen as a translocation site because it lies within the presumed prehistoric range of the species. The Refuge has been free of rats since 1996, and has logistical advantages for intensive post-release monitoring of translocated ducks and for extensive habitat restoration. In addition to providing a safe haven for the endangered ducks, both Midway and Laysan are home to millions of nesting seabirds.

Laysan ducks (*Anas laysanesis*) are small with multicolored brown feathers, a white eye-ring, and are most active at night. On Laysan, the birds are famous for their interesting foraging behavior, a "fly chasing sprint" across the mudflat in the island's interior. The ducks are primarily insect feeders, but also feed on leaves and seeds. The females hide their nests and care for ducklings that can walk and forage the day of hatching.

For more information, contact: Kenneth Foote
Information and Education Specialist
U.S. Fish and Wildlife Service/Division of External Affairs
300 Ala Moana Blvd, Room 5-311, Box 50187
Honolulu, Hawai'i 96850
808-792-9535
Ken_Foote@fws.gov

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850 Richards Street, Suite 505
Honolulu, HI 96813

Tel: (808) 528-1432 Fax: (808) 537-5294

E-mail: hiaudsoc@pixi.com Website: www.hawaiiadubon.com

Pacific Fisheries Coalition (PFC) (a project of HAS)

Tel: (808) 548-FISH Fax: (808) 537-5294 Website:

www.pacfish.org

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Officers for 2006

Election results were announced at the December HAS Program Meeting and are as follows: President Liz Kumabe, First Vice President Ron Walker, and Second Vice President Wendy Johnson were re-elected to two-year terms. New Director Christine Volinski was elected to a one-year term, and Director John Harrison was re-elected to a two-year term. Directors Phil Bruner and Arlene Buchholz continue their terms and are up for re-election at the end of this year.

February is Humpback Whale Awareness Month - Whale Happenings

(see website, <http://hawaiihumpbackwhale.noaa.gov>)

The following events are sponsored by National Marine Sanctuaries, NOAA, and Hawai'i State DLNR:

Thursdays, 6:30 to 8:00pm at Hanauma Bay: Humpback Whale Month lecture/movie (see page 3)

Fridays, 12noon to 1:30pm Watch Whales at Diamond Head. Please RSVP, 808-397-2651, ext. 253.

Saturday, 11th, 8:30 to 11:00am, Watch Whales Day, call number above to find out locations.

Saturday, 25th, 8:00 to 12:15pm, Sanctuary Ocean Count. Call number above to register.

(Also see *Field Trips below*)

Field Trips for 2006

Field Trip information and updates are also available on the HAS office answering machine (528-1432) and on our website, www.hawaiiaudubon.com. The rest of the field trip calendar for 2006 will be decided upon at the Annual Board Retreat at the end of January, and will appear in the March 'Elepaio and on our website.

Saturday, January 21 Makapu'u Lighthouse with Arlene Buchholz to watch whales and look for seabirds, Tiger sharks, and sea turtles. Come and enjoy this 2-mile round-trip walk on the remote Ka Iwi Coast. Meet at the gate next to Kalaniana'ole Highway at 9:30am. Wear good walking shoes and bring water, snacks, sunscreen, binoculars. Come prepared for all sorts of weather, especially rain. Call or email the HAS office to register, 528-1432, hiaudsoc@pixi.com.

Saturday, February 25 Whale Watch Cruise aboard the Star of Honolulu with John Harrison. A very popular trip. We will cruise off the coast of Waikiki for 1 1/2 hours in search of those lovely Humpback whales. On past trips, we have also seen a variety of seabirds, including the Pomarine Jaeger! Bring a warm jacket, water, snacks, and binoculars. Cost will be approximately \$25 per person. Call or email the HAS office to register, 528-1432, hiaudsoc@pixi.com.

Tentative Schedule -

Hanauma Bay Education Program Lectures and Films February and March 2006

February

2nd: "Humpback Whale Entanglement/Rescue" by Ed Lyman, Marine Mammal Response Coordinator for the Hawaii Islands Humpback Whale National Marine Sanctuary

9th: "The Science of Whales" produced for the British Broadcasting Corporation - **Film Abstract:** A study of whale behavior, emphasizing whale sound research

16th: "SPLASH Research" by Mark Lammers, Researcher for the Hawaii Humpback Whale National Marine Sanctuary, co-founder of the oceanwide science institute and is also the current Chair of the Research Committee of the Hawaiian Islands Humpback Whale National Marine Sanctuary Advisory Council. SPLASH is an international cooperative effort to understand the population structure of humpback whales across the North Pacific, and to assess the status, trends and potential human impacts to this population.

23rd: "Humpback Whales" produced by the British Broadcasting Corporation - **Film Abstract:** Spanning the Pacific from the inlets of the Alaskan coast to the Polynesian Islands and the shores of Antarctica, Humpback Whales presents a multi-faceted portrait of this fascinating mammal. This program follows the humpbacks closely and uncovers revealing details that add to the growing knowledge of these creatures.

March

2nd: "Getting a Sense of Numbers - Assessing Hawaii's Fish Stocks" by Wende Goo of NOAA Fisheries

9th: "Researching Pelagic Fish Habitat - Taking a look at the Environment" by Donald Hawn, NOAA Fisheries

16th: "What do Hawaii Fisheries mean to the Economy?" by Dr. Samuel Pooley and Dr. Pingsun Leung of the Pelagic Fisheries Research Program, School of Ocean and Earth Science and Technology, University of Hawaii

23rd: "Tagging and Tracking of Pelagic Fish - Getting a Better Sense of Movement" by Dave Itano of the University of Hawaii

30th: "Managing Marine Fisheries of Hawaii and the US Pacific Islands, It's Past, Present and Future" by Sylvia Spalding of the Western Pacific Fishery Management Council

Great Backyard Bird Count, February 17-20, 2006

A Joint Project of Audubon and Cornell Lab of Ornithology

GBBC 2005 a great success thanks to you! Great Backyard Bird Count 2005 was a great success, with over 50,000 checklists submitted, over 600 species seen, and more than 6 million individual birds counted. Thank you to everyone who participated!

Why count backyard birds? Scientists and bird enthusiasts can learn a lot by knowing where the birds are. Now that winter has gripped much of the continent, what are our birds doing? Bird populations are dynamic, they are constantly in flux. We want to take a snapshot of North American bird populations and YOU can help us. Everyone's contribution is important. It doesn't matter whether you identify, count, and report the 5 species coming to your backyard feeder or the 75 species you see during a day's outing to a wildlife refuge. Your data can help us answer many questions:

The data that you collect will be combined with Christmas Bird Count and Project FeederWatch data to give us an immense picture of our winter birds. Each year that these data are collected makes them more important and meaningful. So as we see patterns, discover new questions and insights, we'll update you. And we'll ask for your help again.

Participating is Easy. We need every bird enthusiast in North America to count for the birds! All you need is basic knowledge of bird identification and access to the Internet at home, a friend's house, local library, school, or anywhere you can get access to the Web. Here's what you do:

* **Count the birds** in your backyard, local park, or other natural area on one or all four count days. You can count in as many different locations as you wish, just make sure to keep separate records and fill out a checklist for each area.

* **Watch the birds** for at least 15 minutes on each day that you participate. We recommend watching for a half-hour or more, so that you'll have a good sense of what birds are in your area.

* **How to count:** Your data will be used by scientists to analyze bird populations, so it is very important that everyone count their birds in exactly the same way. On the day(s) that you count, watch your bird feeders or take a short walk (less than 1 mile) in your neighborhood or park.

For each kind (species) of bird that you see, keep track of the *highest number of individuals* that you observe at any one time. Use a "tally sheet" to help keep track of your counts. Your tally sheet should look something like the following:

* House Finch - 3, 5, 3, 1

* High Count = 5

* Blue Jay - 1, 3, 6, 2

* High Count = 6

Be careful not to count the same bird over and over! Don't add another Blue Jay to your tally every time you see a Blue Jay at the feeder. *You could be seeing the same individual again and again.* If you record only the highest number of individual birds that you see in view at one time, you're sure to never count the same bird more than once!

* At the end of the day go to "Submit your bird checklist" on our GBBC web site. Fill out the questions about your location, local habitat, and count duration. Then enter your high counts for each species sighted on that day and location. You can submit one bird checklist for each day that you count or for each new

area that you count in. For example:

* If you count on four days at one location, you'd submit four different checklists.

* If you count on four days at two different locations each day, submit eight checklists. And so on.

Problems getting access to the Internet? Many libraries, schools, bird clubs, and other community-based groups will be helping, too. If organizations in your area are not already planning to help those without Internet access, you can help get something started!

Finally, after you've submitted your data, explore our web site. Check our results section to see other reports from your community, and watch as data come in from other areas. Have a look through our other pages, and find out other ways you can help birds. Enjoy!

All info reprinted from the Great Backyard Bird Count :
www.birdsource.org/gbbc

Program Meeting: February 13

The Ecology of Seabirds in Hawai'i by Dr. Sheila Conant, Professor and Chair, Department of Zoology at University of Hawai'i at Manoa

Hawai'i has 22 species of breeding seabirds, some of which are quite rare. Many of them breed only in the Northwestern Hawaiian Islands, but colonies of a few species manage to survive in protected areas in the main islands. Two of the species are endemic to Hawai'i and another is endemic at the subspecies level. These latter three species all breed only in the main Hawaiian Islands (hence their rarity?). Our other breeding seabirds have much wider distributions in the Pacific Basin, some even in the Atlantic and Indian Oceans. All of them are beautiful (the author is /not/ biased).

Hawaiian seabirds, in fact, seabirds in general, suffer from a number of mounting threats to their existence. These include ground-dwelling alien predators like rats, mongooses, feral cats and feral dogs, as well as negative interactions with fisheries including mortality in the longline fishery and negative effects on their prey or their foraging behavior from other fisheries. Because the public sees so few of these magnificent birds, their protection is rarely discussed in the media. However, if you're interested in these birds, there are places in the main islands where you can see and hear them. Come and learn more!

Program Meetings are held at the University of Hawai'i's St. John Lab (Botany Building Rm. 011) in the ground floor auditorium at 3190 Maile Way, where it intersects East-West Road. The main entrance to the building is at ground level, street side (Hint: the Diamond head side stairs do not lead to the auditorium). Program meetings take place from from 6:30pm to 8:30pm, refreshments are served, and HAS products will be available for purchase.

Fish and Wildlife Service Gives \$600,000 Coastal Grant to Restore O'ahu's Kawainui Marsh

The U.S. Fish and Wildlife Service will award \$646,250 in a grant to the state of Hawai'i to restore and enhance Kawainui Marsh on the island of O'ahu. The marsh was recognized in February 2005 as an internationally significant wetland under The Convention on Wetlands of International Importance, more commonly known as the Ramsar Convention after its place of adoption in Iran in 1971. The grant is part of \$15 million in Coastal Wetlands Conservation grants to 12 states, announced today by Interior Secretary Gale Norton.

The Hawai'i grant will be supplemented by \$312,500 from the state and private partners. The total project cost of \$958,750 will enable Hawai'i's Department of Land and Natural Resources and their partners to restore 20 acres and enhance 60 acres of coastal wetlands and associated uplands at Kawainui Marsh. Project partners include the Castle Foundation, The Wildlife Society, Le Jardin Academy, Kailua Urban Design Task Force, and the City and County of Honolulu.

"When people at so many different levels come together in these kinds of projects, everybody wins," Norton said. "This is the kind of effort that makes it possible for us to leave a real legacy for our children and grandchildren."

National Coastal Wetlands Conservation grants are awarded to states through a competitive process. The program is funded

under provisions of the 1990 Coastal Wetlands Planning, Protection and Restoration Act, with money generated from excise taxes on fishing equipment and motorboat and small engine fuels.

Including the 2006 grants, the Service has awarded more than \$165 million in grants to states and insular areas since the program began; when the 2006 projects are complete, they will have protected, restored or enhanced about 14,000 acres. A total of more than 200,000 acres will have been protected or restored since the grant program began.

For more information, contact the National Coastal Wetlands Conservation Grant Program, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Arlington, VA 22203, or Division of Federal Assistance, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Arlington, VA 22203, or visit the program's home page at <http://www.fws.gov/coastal/CoastalGrants/>.

Source: USFWS News Release dated January 6, 2005
Contact: Ken Foote, 808 792 9535 or 282 9442

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Mexico \$ 26.00
Canada \$ 28.00
All other countries \$ 33.00

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