



U.S. Fish & Wildlife Service

PAPAĀNAUMOKUĀKEA

Marine National Monument

March 2010 Update

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Wildlife and Habitat Management

Hawaiian Islands NWR - Tern Island:

Dr. Melinda Conners, studying under the University of California-Santa Cruz, completed satellite tagging of Laysan and black-footed albatrosses and masked boobies for the season, and returned to Honolulu on the *M/V Kahana*. Dr. Conners' tags will aid in tracking studies of these far wandering birds to better understand their foraging areas.

Tern staff continued throughout the month with mark and recapture studies for population abundance of masked boobies, red-tailed tropicbirds, Bonin petrels, and Christmas and wedge-tailed shearwaters. These efforts assist in the international migratory bird banding program to understand populations and track these species.



Pair of masked boobies on Tern Island.

A mean incubation count was completed for gray-backed terns on the final day of the month. One-hundred two nests with eggs were found, but no chicks had yet popped out.

Station Manager Pete Leary and Assistant Manager Paula Hartzell picked up hazardous marine debris on Trig, East, Gin, and Little Gin Islands. In

addition, they found a large bundle of nets and ropes, which was brought back to Tern for disposal on the next *M/V Kahana* resupply mission.

Midway Atoll NWR loaned its premier invasive species biologist, Greg Schubert, to Tern Island for a 10-day detail. Greg assisted with herbicide application in the ongoing effort to eradicate nonnative plants and was able to treat about one third of the island.

Two humpback whales were observed between East Island and La Perouse Pinnacle. This was the first time staff had seen whales in the shallower part of the atoll.

Hawaiian Islands NWR - Laysan Island:

A short-tailed albatross was resighted on Laysan Island. Once the most numerous albatross in the North Pacific, this is a hopeful and important step toward expanding the range of this critically endangered species.

Laysan duck counts continued mid-month, with 190 ducks spotted on the north end of the island. Although also critically endangered, the Laysan duck population is stable on Laysan Island.

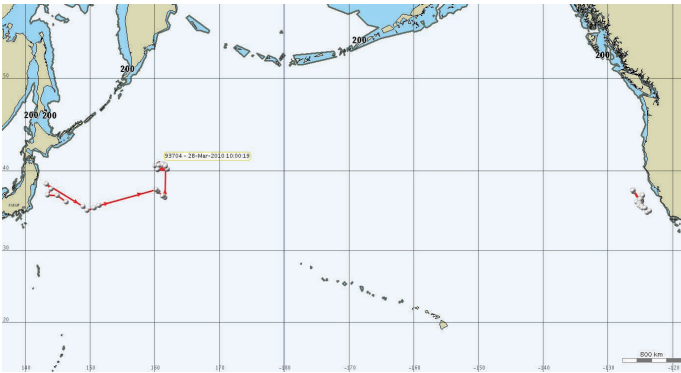
Habitat management goals for restoring native habitat at Laysan Island were advanced with the out-planting of 100 native palms (*Pritchardia remota*) and 20 goosefoot in an area from which the invasive shrub Indian fleabane had been removed.

FWS Ecological Services biologists leading the Nihoa millerbird translocation team were at Laysan for 6-days in March to evaluate habitat for translocating this endangered species to Laysan. The reconnaissance was critical to determine Laysan's suitability in its current state for translocation, as

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well as planning future Laysan habitat and species management implications with millerbirds on island. At one time, Laysan was home to the Laysan millerbird, but sadly that species went extinct in the early 1900s when the island's habitat was severely degraded by guano mining and introduced species.

Midway Atoll NWR:



Two fledgling Laysan albatrosses that were satellite tagged in 2009 chose opposite sides of the Pacific Ocean for their first year of life.

Two of the four Laysan albatross fledglings that were tagged with solar satellite tags in July 2009 continue to transmit locations. One of the other

Maintenance

Hawaiian Islands NWR - Tern Island:

Winter/spring rains have finally provided sufficient water on-island to fill the station's watertanks. This enabled staff to put all four solar arrays back on-line to support the AC electrical system rather than the reverse osmosis system to create water.



Three water tanks/cisterns on Tern Island hold the "community's" freshwater supply.

four tags failed within the last few weeks; causes of failure could be mortality of the bird, loss of transmitter, end of battery life, or feathers covering up the solar panel on the tag. One albatross is 2,500 km northwest of Midway, somewhat near Japan, and the other albatross is 4,700 km northeast of Midway off the coast of California.

Reproductive success surveys of black-footed (3 plots) and Laysan albatross (2 plots) were completed weekly. By the end of the month staff began banding chicks with permanent metal and auxiliary bands.

Midway staff continued habitat restoration efforts on approximately 200 acres, which included removal or spraying of invasive plants such as *Verbesina enceloides*. Once an area was sufficiently cleared of invasive species, staff then replanted the area with native plants, such as morning glory and bunch grass. Staff averaged propagating and planning about 300 pots of native plants per week!

Monthly monitoring of five marine debris plots continued in March. This on-going study is to quantify and qualify the marine debris that washes ashore at Midway.

New, highly energy efficient appliances arrived and were installed on Tern. The new washing machine will use significantly less water, and both it and the new freezer will require significantly less power to operate.

Midway Atoll NWR:

American Recovery and Reinvestment Act projects on the historic officers' quarters made excellent progress through the month of March. Much of the electrical and duct work was completed, as well as installation of highly energy efficient windows. Once renovations are complete, the "greening" of the structures will help to significantly reduce fuel consumption on the atoll.

Administration

The *M/V Kahana* March resupply mission to Papahānaumokuākea went smoothly and on schedule. The ship's new licensing approval to double-stack containers provided an additional 105,000 pounds of needed supplies and fuel to Laysan, Tern, and Midway. This ship also provided transport support to staff for FWS and NMFS Endangered Species programs for the Nihoa millerbird and Hawaiian monk seal, respectively. The *M/V Kahana* is key in the resupply of the islands and in conducting field work within Papahānaumokuākea.

FWS hosted a Nihoa camp alternatives meeting with a FWS archaeologist, engineer, Ecological Services biological contractor, and Office of Hawaiian Affairs representatives to evaluate options for planning a sustainable camp locale for visiting scientists, archaeologists, or cultural practitioners. The objective is to identify a site that would minimize impact to sacred cultural sites and native wildlife, or impair the character of the proposed wilderness area.



One of the only level areas on Nihoa is also an archaeologically and culturally important site.

Hawaiian Islands NWR- Tern Island:

Tern Island was “repatriated” early in the month with Station Manager Pete Leary, Assistant Station Manager Paula Hartzell, and two volunteers after being evacuated due to the Feb 27 tsunami. A low pass was made before landing to check the runway condition. It was clear and dry and the plane was able to land without incident or bird strikes. Once

back on the island, no entrapped wildlife were found, and all equipment was in working order. A second flight returned two additional volunteers 4 days later. No damage or problems occurred from the evacuation process or from 8 days of staff being off island, other than lack of biological work being completed.

Hawaiian Islands NWR - Laysan Island:

The biannual Laysan Island crew change in Papahānaumokuākea was completed with four new people deployed until September. The winter and summer crews spent 6 days working together and exchanging information before the winter crew departed on the southbound *M/V Kahana*. The summer crew consists of two term biotechnicians (Matt Stelmach – returning from last year and Ruby Hammond – newly hired) and two volunteers. The team will continue invasive species control, habitat management, and wildlife surveys on the island. Food, equipment, and essential camp gear and supplies were also taken to the island.

Midway Atoll NWR:

Monument Management Board member Jeff Newman from Ecological Services (ES) spent 10 days on Midway Atoll to learn firsthand about a variety of Midway management issues. Also from ES, Patrice Ashfield accompanied Newman to assist the refuge in developing Endangered Species Act Section 7 consultations for FWS trust resources. After their time on Midway, Ashfield and Newman embarked onboard the *M/V Kahana* to gain valuable experience with site visits at Laysan and Tern Islands.

Permits Manager Ray Born and Contaminants Biologist Lee Ann Woodward attended the initial planning conference for the *S/V Grendel* salvage operation and removal of Midway debris. The *S/V Grendel* is a wrecked vessel at Kure Atoll and an entrapment hazard for sea turtles and monk seals. The salvage of the ship is a multiagency public-private effort with U.S. Navy, NOAA, State of Hawai‘i, and FWS. Much of the staging for this effort is proposed to occur out of Midway Atoll NWR. Schnitzer Steel, a local Hawaiian business, will be recycling the ship and Midway scrap materials.

Visitor Services



Photo Credit: Arthur Morris

Albatross take-offs and landings are a favorite subject for photographers on Midway Atoll NWR.

March kicked off the “official” visitor season for 2010, with visitors on-island for 3 out of the 4 weeks. Visitors were in awe of the wildlife! They were treated to literally millions of albatrosses, Bonin petrels, white terns, greater frigatebirds, brown and black noddies, and more. Visitors also enjoyed learning about endangered species, historic and Native Hawaiian cultural connections, as well as resource management. Many even assisted with planting native bunchgrass and removing marine debris from some of the open beaches. Joseph Van Os Photo Safaris and the Oceanic Society, both companies bringing visitors to Midway in the past, expressed interest in once again bringing visitors to Midway in 2011.

Seasonal Park Ranger Mark Stewart began offering star gazing programs twice a week at Midway, and they have proven to be quite popular. Because lights confuse Bonin petrels and cause mortality and injury when the birds fly into them, refuge staff have removed all light posts, as well as almost all

external lighting from buildings. As such, light pollution at Midway is nearly nonexistent, providing exceptional opportunities to enjoy natural dark and the night sky.

Refuge staff and Chugach Industries contractors made significant improvements to the approach at one of the historic gun batteries. A hand rail was put in place at gun battery C that will allow visitors to safely navigate up and down the sandy slope that is the side of the battery, enabling them to personally see, feel, and hear this significant structure left from the Battle of Midway. (If voices are magnified inside, imagine the deafening sound of the gunfire the military had to endure!)

Medcor, the contracted health-care provider on Midway Atoll NWR, led the third annual 5K race on Midway to encourage resident health and fitness. Runners, bikers, and walkers were encouraged to participate. A suite of wonderful prizes were raffled off to participants, and a fun (and healthy) time was had by all!



Photo finish for first place between Deputy Refuge Manager John Klavitter and Refuge Manager Matt Brown.

Send us your comments, or for more information contact:

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