

# PAPA HĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT

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U.S. Fish & Wildlife Service Update



August 2009

## Wildlife and Habitat Management

### Hawaiian Islands NWR - Tern Island:

Station Manager Pete Leary discovered an invasive plant species that has not formerly been in Tern Island's plant inventory. *Cyperus rotundus* (purple nut sedge) was found to be localized around the barracks, and is anticipated to be relatively easily eradicated.

A total of 31 Hawaiian monk seal pups were born at French Frigate Shoals this year. Unfortunately, several shark attacks on the endangered monk seals also were recorded. The final three pups to wean on Trig Island were bitten by sharks within hours of weaning. Two of the attacks were documented by a National Marine Fisheries Service remote camera. It also documented many instances of mother seals chasing sharks away when they got too close to pups that were still nursing. NMFS staff satellite tagged and translocated six weanling seals from FFS to Nihoa via NOAA's *R/V Oscar E. Sette* as part of the Monk Seal Recovery Program.



*Hawaiian monk seal pup with satellite tag*

The FWS/NMFS/Hawaii Institute of Marine Biology co-sponsored research on shark behavior and monk seal interactions came to a close for the year. A total of 79 Galapagos, 38 tiger, and

3 blacktip sharks were tagged. A goal of the research is to better understand shark behavior at FFS and predation on Hawaiian monk seals.

Rescue of sea turtle hatchlings continued throughout August. In addition to digging up nests to free trapped hatchlings, FWS volunteers kept a close eye looking for those lost elsewhere. Close to 150 baby turtles found in weeds or on the runway have been carefully released into the ocean.

### Hawaiian Islands NWR - Laysan Island:

FWS personnel on Laysan are working with our NMFS partners to enhance the Monk Seal Recovery Program by securing an appropriate camp location for year-round NMFS deployment on Laysan. As this is the first time NMFS is planning to staff a year-round operation, it is necessary to relocate their summer camp in order to provide better crew safety during high winter winds and seas. Options were evaluated to not only maximize safety, but also to minimize wildlife and habitat impacts.

The Laysan summer field crew debriefed Honolulu staff of activities during the prior 6 months. The summer crew focused on identifying best practices for herbicide application in the ongoing effort to control invasive plant species; propagating native sandalwood; monitoring Laysan duck populations; monitoring green turtle nests; support to NMFS monk seal work; and measuring reproductive success of albatross. Of particular note is a reduction in reproductive success of Laysan albatross in the areas that were monitored. This season 17% of chicks successfully fledged, this compared to last year's 60% success. Dr. Beth Flint, Pacific Reefs Refuge Complex Wildlife Biologist, is reviewing the results and monitoring methodology to better understand possible implications.

## Papahānaumokuākea

### Wildlife and Habitat Management (continued)

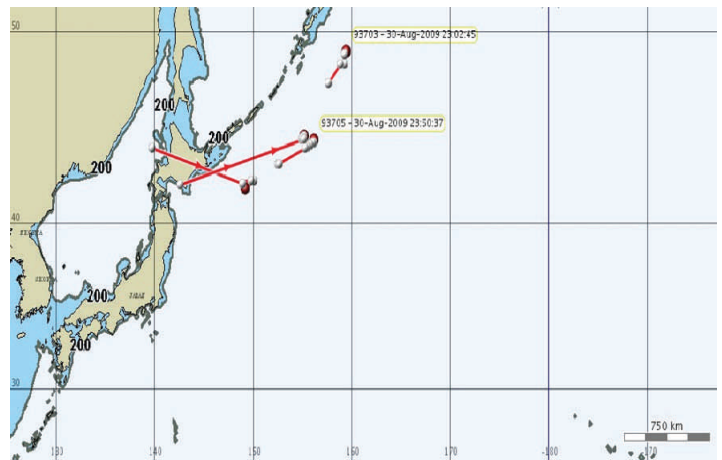
#### Midway Atoll NWR:

Refuge staff and volunteers continued to implement protocols addressing the 2009 botulism outbreak affecting the endangered Laysan duck. In concert with daily, intensive wetland surveys to locate dead or sick ducks, intensive habitat manipulation that included removal of fringing vegetation and “vacuuming” of some of the muck from the bottom of the most troublesome wetlands was employed to inhibit growth of the botulism bacterium. Forty-three sick ducks treated, of which 26 recovered and were released. Only 1 was later found dead. This combined effort along with cooler temperatures may have brought the most recent outbreak to a close as of the end of the month. No sick or dead ducks had been found during the final week in August.

By the end of the month, the largest Laysan and black-footed albatross breeding colony on the planet was devoid of albatrosses. However, Bonin petrels were returning by the tens of thousands to spiff up their burrows for their upcoming nesting season.

The team of coral reef biologists from University of California - Santa Cruz completed a successful field season monitoring Midway’s reefs and potential climate change adaptations.

The four Laysan albatross chicks that were fitted with solar-powered satellite tags while on Midway were approximately 3,000 km from the atoll at the end of August. All were located near the northern Japanese island of Hokkaido. This study will enable managers to better understand where young albatrosses spend their time - and for how long - after they fledge.



*Location of Laysan albatross fledglings on 8/30/09*

### Maintenance

#### Hawaiian Islands NWR - Tern Island:

Staff spent much time preparing for a maintenance project to repair and replace the damaged roof and walls of the island’s warehouse. The project is scheduled to begin in September with the next *M/V Kahana* delivery of construction materials and contractors. Much effort was put into cleaning the warehouse and rearranging the supplies it houses to enable contract staff to replace the facility walls.

#### Hawaiian Islands NWR - Laysan Island:

American Recovery and Reinvestment Act funds are benefitting the American people by not only aiming to bolster our county’s economy, but by also supporting our national wildlife refuges through

funding of specific projects. Laysan Island is receiving funds to replace the aging permanent tent encampment and photovoltaic system. FWS engineers are researching the best alternative for the photovoltaic system to meet criteria for a minimal footprint.

#### Midway Atoll NWR:

The close of the albatross season marked the beginning of the construction season at Midway. A 220 foot construction barge arrived at the atoll bringing supplies and equipment necessary to resurface the airport runway, as well as supplies for renovating seven 1941 historic officers’ quarters.

## Papahānaumokuākea

### Administration

DHS Presidential Management Fellow Elizabeth Koren visited Tern Island to update the emergency Continuity of Operations Plan. In addition, Elizabeth inventoried medical and emergency supplies, provided a 2 hour first-aid refresher, as well as conducted successful VHF radio checks with the USCG in California and with the *M/V Kahana*. Elizabeth is providing recommendations for updating critical emergency supplies and has been instrumental in acquiring excessed Homeland Security satellite phones and satellite pagers to support emergency communications.

FWS Archaeologist Anan Raymond accompanied anthropology researcher Kekuewa Kikiloi aboard NOAA's *R/V Hi'ialakai* to Mokumanamana early in the month to survey and further document the significant historic sites on this sacred island. The 18-day on-island stay is the longest documented time dedicated to archaeology on Mokumanamana.



*Examining what is thought to be a Native Hawaiian house platform on Mokumanamana*

Laysan Island lost much needed email connectivity this month due to modem failure. All communications with Laysan are currently satellite phone or radio, with assistance from NMFS email. Biological Science Technician Cindy Rehkemper is working to reestablish email with Laysan after the September *M/V Kahana* trip.

In mid August, the *M/V Kahana* made its first voyage to the NWHI under the new FWS contract. In addition to changing out partner and FWS staff at the remote islands, it delivered much needed food, general supplies, and construction supplies. This successful voyage also removed 18 pallet tubs full of recyclables and trash from Tern Island to be properly disposed of in Honolulu.



*M/V Kahana's landing craft delivering fresh food and supplies to Tern Island*

Permits Manager Ray Born is working with Monument partners to develop the 2010 joint Managers' permit application. The permit is for all management activities in the Monument proposed by FWS, NOAA, and the State of Hawai'i. He is also coordinating with partners refining a list for the NOAA threat assessment and working with the data management team to standardize FWS information in the data management system under development.

With Midway Atoll NWR's history of human uses, environmental health and safety is being evaluated to determine "best management practices" for those working and living on the atoll. An Industrial Hygienist made a site visit to Midway to evaluate the environmental living and working conditions for island residents and made several recommendations regarding food service and workspace conditions. A follow up report will provide results of air and soil samples taken from multiple sites around Sand Island.



## Papahānaumokuākea

### Visitor Services

The two World Heritage evaluators and a National Park Service escort were introduced to Papahānaumokuākea and stakeholder support on the main Hawaiian Islands and spent 14 days exploring the NWHI chain aboard NOAA's *R/V Hi'ialakai* assessing the Monument's management effectiveness. Stops on their mission included time at Nihoa, Mokumanamana, Laysan, Pearl and Hermes, Midway, and Kure. After 2 final days of assessment back again in the main Hawaiian islands, the evaluators returned home to write their recommendation to the World Heritage Committee. Inscription as a World Heritage site will provide recognition of the outstanding universal natural and cultural values in the Monument to all people of the world. A final decision is anticipated to be announced in July 2010.



*Damage to the wing of USCG C-130 aircraft after an unfortunate collision with a great frigatebird*



*Midway NWR staff showing World Heritage evaluators what the world's largest albatross colony looks like most of the year*

Midway received **two** visits from a distinguished group that included Congresswoman Mazie Hirono (D-Hawai'i) and U.S. Coast Guard Rear Admiral Manson Brown. The first visit was a planned 1-day trip organized by the USCG to highlight their conservation work in the Pacific. However, during their scheduled departure the following morning, the USCG C-130 aircraft had a bird strike with a great frigatebird, and the aircraft sustained substantial damage to one wing. The plane turned around and returned to Midway for repairs. The Congresswoman and other guests experienced firsthand the emergency capabilities of Midway airfield's professional staff and were able to spend another full day enjoying the wonders of Papahānaumokuākea at Midway Atoll NWR.

For more information, contact:

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