



U.S. Fish & Wildlife Service

# PAPAHĀNAUMOKUĀKEA

## Marine National Monument

January 2010 Update

Volume 2, Issue 1

## Wildlife and Habitat Management

### Hawaiian Islands NWR - Tern Island:

The first black-footed and Laysan albatross eggs hatched on January 12 and January 20, respectively. Believe it or not, the first hatches last year occurred on the exact same dates!

In addition to albatross, most species of seabirds at Tern are now in the full swing of creating their next generation. Those laying eggs included: red-tailed tropicbirds, masked and red-footed boobies, and great frigatebirds. Bonin petrels and Tristram's storm petrels chicks were found during nest censuses. Finally, both sooty and gray-backed terns have been seen visiting, but had not yet settled in.



*Nesting birds at Tern Island take advantage of every available spot. "Condominium living" is at its finest, with great frigatebirds, red-footed boobies, white terns, and brown noddies in residence (noddy in shadow.)*

Near the end of the month, humpback whales were seen in the area of French Frigate Shoals. As it turns out, the Tern Island barracks roof serves as an excellent spotting platform.

The seawall that is essential to protecting Tern Island from heavy surf and erosion continues to be a wildlife management challenge, as well. Regular

surveys (called sweeps) around the island found four green turtles trapped behind the wall, all of which were successfully released by refuge staff.

### Hawaiian Islands NWR - Laysan Island:

Sixteen black-footed albatross, originally banded on Tern Island, were sighted on Laysan. This relatively high number of "re-sights" from another island is somewhat unusual, as albatross typically have high nest site fidelity. Laysan staff will continue to monitor the status of these wanderers.

Despite numerous storm events and high winds (at times greater than 30 knots) "business as usual" went on through much of the month for the Laysan Island field crew, which included: spraying or removal of invasive plant species; horticulture and out-planting of native plants; albatross monitoring; brinefly surveys at the hypersaline lake; shorebird surveys; and Laysan duck inventories. There is a lot of great work that gets completed in a typical month!

Beginning on January 10 and lasting throughout the month, Laysan staff reacted to a disturbing die-off event of Laysan albatross. Dead birds were found in the surf, near the lake, on all sides of the island, with a couple even having appeared to have just keeled over when sitting on a nest. In addition, multiple sick birds were also found. The sick birds were typically lethargic and nonreactive to humans, and had no external injuries or indications of illness. Overall, at least 60 Laysan albatross died associated with this event. Several birds were frozen for physical examination and analysis for contaminants and will be transferred in March to Theiry Work with the USGS National Wildlife Health Research Center in Honolulu. Neither Tern Island nor Midway Atoll have reported any unusual albatross mortality. We will continue to monitor and investigate this mystery.

## Wildlife and Habitat Management (cont'd.)

### Midway Atoll NWR:

On January 3<sup>rd</sup>, the world's oldest known Laysan albatross, a female nick-named "Wisdom," was sighted for the first time this breeding season. She was observed in her usual location behind the Bravo Barracks and was incubating an egg. Wisdom was banded as a nesting adult in the same location by Chan Robbins in December 1956. Robbins



"Wisdom" on her nest. January, 2010

estimated that she was a minimum of 5 years old at the time. Last year Wisdom and her mate successfully fledged a chick. Wisdom is at least 59 years old! (The

oldest albatross in the world is thought to be a Northern Royal Albatross, which was located on the South Island of New Zealand and was named "Grandma." She reached a banded age of 51.5 years and probable actual age of 61+ years.)

The team of dedicated "bird counter" volunteers completed Midway's annual albatross nest count for the 2010 "hatch year." The number of nesting Laysan albatross pairs was 428,090. This was 7.9% higher compared to last year, but less than the all-time record from 2006, which was 487,527. The number of nesting black-footed albatross pairs was 23,722, which was 1.0% lower than last year, but relatively close to the all-time record of 24,887 from 2007. Can you imagine counting over 450,000 nests in about 3 weeks time???

Refuge staff continued their management of nonnative plants, including *Verbesina encelioides*, on approximately 200 acres of the refuge. In addition, approximately 300 pots of the native plants morning glory (*Ipomea indica* and *Ipomea pes-caprae*) and bunch grass (*Eragrostis variabilis*) are propagated and out-planted each week. The cycle of removing invasives and replanting with

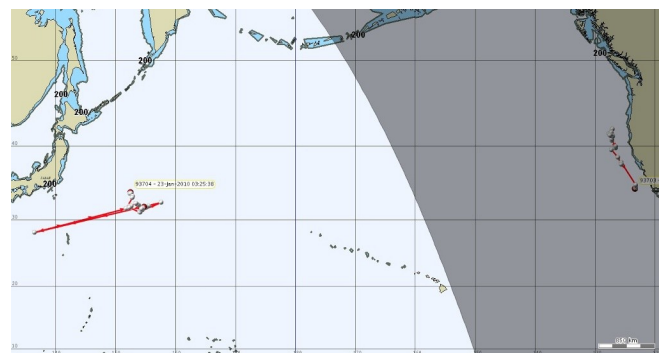
natives is critical to habitat restoration in the Northwestern Hawaiian Islands.

Weekly wetland checks and Laysan duck surveys were conducted on both Sand and Eastern Islands. One Laysan duck was found missing approximately 25% of its upper mandible, which may have been caused by a curious albatross snapping at the duck. The female second-year duck was severely emaciated, weighing just 190 g compared to a normal weight of 420 g and died soon after being found.



This Laysan duck's broken mandible is clearly visible.

Three of the four Laysan albatross fledglings that were tagged with solar satellite transmitters in July 2009 continue to transmit locations. Two are located between Midway and Japan. One is located about 150 miles off of Baja California near Guadalupe Island, home of a small nesting colony of Laysan albatrosses. The fourth bird last transmitted on January 7 in the vicinity of Honshu Island, Japan. It is likely that its tag failed or the bird is dead. Causes of tag failure include: feathers covering up the solar panel and preventing battery recharge; tag was pulled off prematurely by the albatross and sank to the bottom of the ocean; or salt water intruded into the tag.



Three young Midway albatross exploring both sides of the Pacific Ocean.



## Maintenance

### Hawaiian Islands NWR - Tern Island:

The need to shut down facilities during the Hurricane Neki evacuation continued to create challenges for basic operations at Tern Island. Some of the issues that the staff have been dealing with included a failed propane refrigerator, faulty oven, only one out of four computers being operational, and a boat breaking down while attempting to conduct albatross egg counts on other French Frigate Shoal islands. With outside assistance being so very limited due to the remote location of Tern, the benefits of having multi-talented staff onsite is evident.

Having back-up supplies on-hand is also essential for remote field stations. While lifting the island's SAFE Boat out of the water, the hoist broke causing the boat to fall back into the water and punching a small hole into the boat's aluminum deck. Upon close inspection it was found that corrosion accelerated without preventive maintenance during evacuation, weakening the fixture. The hoist was replaced with a spare part on-station. Although there were no significant injuries associated with this event, it was also a sober reminder of the importance of extreme safety consciousness at all times.

## Administration

FWS warmly welcomes Dr. Paula Hartzell to our Papahānaumokuākea team as the Tern Island Assistant Manager at Hawaiian Islands National Wildlife Refuge. Paula received her Doctorate in biology, Masters in Anthropology, and most recently worked with the Hawai'i Division of Forestry and Wildlife. She will deploy to Tern Island in mid-February.

Midway hosted the annual Federal Aviation Administration/FWS Henderson Airfield Meeting. FWS Regional Office, Honolulu Office, and Midway Atoll NWR staff met with three representatives from the FAA for a 5- day meeting to inspect facilities, discuss shared budgets and

### Hawaiian Islands NWR- Laysan Island:

Communications have been hampered with limited satellite email capabilities on Laysan Island, especially after Hurricane Neki. Fortunately, FWS staff have been able to partner with the on-island NMFS monk seal crew to send text-only emails.



*New growing containers in hydroponic garden.*

### Midway Atoll NWR:

Chugach Industries, Midway's on-island contractor, significantly increased the production of the hydroponic garden. In addition to growing leafy greens, the garden will now be able to grow tomatoes, peppers and cucumbers. The extra produce will be healthy, tasty, and reduce the amount of fresh food needing costly transport to the refuge.

costs, and to formalize a new Memorandum of Agreement. The meeting was highly successful for all involved, with both agencies looking forward to continuing the mutually beneficial partnership.

Chugach Industries finished organizing the scrap metal area, locally referred to as the "boneyard." The majority of metal originated from U.S. Navy equipment and supplies that were transferred to the USFWS in 1996. There is an estimated 600 tons of steel, 15 tons of copper, and 7 tons of aluminum. The materials are staged and ready to be incrementally removed by future cargo ships and barges for recycling at appropriate facilities in Honolulu.

## Visitor Services

Midway's first visitor group of 2010 arrived near the end of the month. A group of nine Masters students and three instructors from Duke University spent 9 days on Midway as part of a "Marine Conservation Biology" course. During the course they examined the challenges associated with managing and conserving marine biodiversity using aspects of Papahānaumokuākea Marine National Monument as the focus of several case studies. These case studies included the conservation of endangered species at Midway, including monk seals and sea turtles, and a variety of breeding seabirds. Conservation issues that face the Monument, including marine debris, invasive species and climate change were also addressed. You are strongly encouraged to visit the students' blog at: <http://www.nicholas.duke.edu/hawaii/2010>.



*The future of marine conservation!*



*A representative sample of the debris that makes its way to Midway Atoll. Note some of the items, such as lighters, drink bottles, shoes, and toothbrushes.*

Midway Atoll NWR staff shared information and statistics regarding its ongoing marine debris monitoring and recycling programs with USFWS writer/editor Bill O'Brian. Mr. O'Brian is planning on including this information in an upcoming article in the nationally distributed *Refuge Update Magazine*. Figures shared included the 2009 estimates of the amount of marine debris that is deposited on Midway Atoll: 8.7 metric tons of ropes and nets, 8.2 metric tons of plastic/glass/other, and 4.2 metric tons of plastic that was accidentally ingested by adult albatrosses, then fed to their chicks. This totals 21.2 metric tons that accumulates on only one of the atolls within the Northwestern Hawaiian Islands. Staggering!

Send us your comments, or for more information contact:

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