

Pacific Islands Region Marine Mammal Response Network Activity Update

Dedicated to Humane Marine Mammal Response in the
Hawaiian Islands, Guam, American Samoa, and the Northern Mariana Islands

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#9



NOAA FISHERIES SERVICE

Inside This Issue

Hawaiian Monk Seals	1-4
Cetaceans	5-6
Network News.....	7
Acknowledgments and Thanks.....	7
Images From the Field.....	8

Hawaiian Monk Seals

Main Hawaiian Islands 2008 Pupping Update

The year 2008 brings the highest number of monk seal births on record for the Main Hawaiian Islands (MHI). There have been eighteen pups born this year. The previous record is thirteen births in 2007. Of the eighteen, twelve are males and six are females. Eight pups were born on Molokai: seven on the Kalaupapa Peninsula and one on the west side of Molokai. The pup born on the west side was found during an aerial survey and is the first documented birth in this area since 1996. Four pups were born on Kauai this year. Three pups were born on Oahu, surpassing the previous high of 2. Kahoolawe, Niihau and the Big Island have had one birth each.



Three new moms have been documented this year. RI15 (Molokai) is a first-time mom and at the age of four is the youngest monk seal ever documented to give birth. RK28 (Oahu) and R020 (Molokai) are also new moms; however it is possible that these females have pupped in previous years, but have been undocumented due to location.

R042 Continues to be a Management Problem for the Main Hawaiian Islands

R042 is a female seal that has been highlighted in previous issues of the Pacific Islands Marine Mammal Response Activity Update. This seal was born on a crowded beach, and has had exposure to human presence since birth. To remove her from threats of human contact the seal has been relocated four times since birth. The most recent move occurred on August 28, 2008 when she was moved from Hookena, Big Island to the waters between Laau Point, Molokai and the western shores of Lanai. It has been reported that she has been interacting with humans again since the move.

Habituation is the decrease in response upon repeated exposure to a stimulus (Webster 2003). This is an increased tolerance or desensitization to a stimulus. R042 has become conditioned to actively search for people. There is documentation that she has been fed by spear fishermen and reinforced to interact with humans in a variety of ways. Since her fourth relocation, R042 has been spotted at Laau Point, Molokai and



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Hawaiian Monk Seals

appeared at several locations around the island. In September the Four Seasons Manele Bay Resort and the Lanai Parks and Recreation for Castle and Cook Lands were contacted about a monk seal observed interacting with swimmers, surfers, beach users, and approaching boats in Manele Harbor. She then appeared on Kahoolawe interacting with Kahoolawe Island Reserve Commission (KIRC) volunteers. When RO42 moved back to Lanai, another alert was issued. From September to mid- October, RO42 was tracked on Lanai, Molokai, and Penguin Banks.

Maui's Marine Mammal Response Network Coordinator, Nicole Davis, conducted extensive outreach and delivered information to at least 20 boat

captains, the Hulopoe Park Manager, representatives from the Four Seasons Manele Bay Resort Hotel, DLNR DOCARE, and KIRC.

NOAA Fisheries would like to thank the Four Seasons Manele Bay Resort for working with us to create material that alerted their guests about RO42 and her potential for interacting with swimmers, snorkelers, and other beach users.



Abandoned Pup Rescued from Kauai is Currently in Rehabilitation

On June 1, 2007 volunteers found a newborn female pup with its umbilical cord and placenta still attached. An adult female seal (RK22) was presumed to be the mother, as she was lying 100 feet away from the pup. Kauai Monk Seal Team responders collected the pup to remove the placenta and cut the umbilical cord. The seal pup was then placed within the mother's visual range but while she showed some signs of responding to her pup, after a few hours, she swam away from it. Vocalizing, the pup tried to follow her. Despite three more attempts to reunite the pair, the mother continued to show signs of abandonment and aggression toward the pup. By the fifth day, the pup was emaciated and weak. It was collected and examined by a veterinarian who determined that the best course was to humanely euthanize the animal.

In May, 2008, the same female monk seal gave birth to a male pup about 100 feet

from the location of the last event. When volunteers observed her not attending to her pup for about 24 hours, NOAA Fisheries Service Pacific Islands Region was immediately alerted to the situation. It was determined that attempts to reunite the pair would only be attempted for a single day.

When the pup was found, he was alone suckling on rocks and vocalizing loudly. His mother arrived soon after accompanied by a large male. The male displayed threatening behaviors and attacked the pup, while the mother made no attempt to protect it. This is not the normally observed maternal behavior for Hawaiian monk seals. Monk seal mothers are historically seen protecting their pups from other seals. An attempt was made to deter the male away from the pup, but when the male moved several hundred yards down the beach the mother subsequently followed the adult male: once again abandoning her pup.

The pup was collected, given broad-spectrum antibiotics, and relocated further down the beach near his mother's location in yet another attempt to reunite them. Once again, rather than showing interest in the pup, she displayed threatening and aggressive behavior toward it; bit it on the head, picked it up and tossed it a short distance. At this point, the decision was made to rescue and rehabilitate the pup.

NOAA Fisheries Service staff flew to



Kauai to transport the pup from Lihue Airport on the U.S. Coast Guard's C130 to the PIFSC Kewalo Research Facility on Oahu for rehabilitation. About 48 hours after its birth, the pup (temporarily tagged KP2) was rescued under the authorization of PIRO's Marine Mammal Health and Stranding Response Permit (MMHSRP) permit # 932-1489-09.

Under the direction of Drs. Gregg Levine, Bob Braun, and Frances Gulland the Marine Mammal Center (TMMC) in Sausalito, California, provided technical staff support for the rehabilitation. The lack of passive transfer of immunity from his mother's milk made him extremely vulnerable to infection and disease. Initially, four to five times a day, the pup



received a mixture of ground herring, salmon oil, and vitamins via stomach tube. After a time he was weaned onto herring and moi. He now catches and eats live prey (moi) and has been consistently gaining weight. He came to Kewalo Research Facility weighing 34 pounds and currently weighs an estimated 100 pounds.

After several months it was decided that KP2 would benefit from being in a shore pen. The U.S. Marine Corps Base Hawaii (MCBH) Environmental Division staff assisted in securing an area on their base. PIRO, PIFSC and volunteers built the pen on Saturday, September 6th. An orange buffer fence was placed around KP2's holding pen to prevent interactions with feral land mammals and interaction through the fence with wild seals, both measures are required by section 2.4.6 Best Management Practices in the Marine Mammal Rehabilitation Facilities Guidelines to Reduce the Spread of Disease from Animals Housed in Open Sea/Bay Pen Systems. After KP2 was placed in its pen, NMFS and TMMS volunteers and staff provided 24-hour watches for the pup. MCBH arranged for night time military police patrols to check on the volunteers and protect the seal. Outreach messaging and fact sheets were provided to MCBH staff, residents, and visitors.



The Mystery of the Disappearing Hook!

During Memorial Day weekend in 2008 an adult female monk seal on Kauai was reported to have a leader and barrel swivel coming from her mouth. This suggested that a hook may possibly have been ingested. For several weeks following the report, teams of Kauai Monk Seal Conservation Hui staff and volunteers searched for the seal. Fourteen days later, a PIFSC team was on Kauai collecting and placing satellite transmitters on seals for their permitted research activities to understand Hawaiian monk seal foraging and movement patterns. They encountered the female, collected her, and noticed fishing gear similar to what was described in the earlier report. After placing a satellite tag on her they released her because at the time there was no facility or location where the animal could be taken to remove the gear. Meanwhile, PIRO established contact with and authorized the Waikiki Aquarium to assist with the rehabilitation effort.

A team of experts from PIFSC and PIRO travelled to Kauai in an attempt to capture the female seal. The seal eluded the team for three days, until finally during the morning of June 24, 2008 the seal was found, collected and transported to the Lihue Airport, where a U.S. Coast Guard C-130 plane waited. By that afternoon, the seal was placed in an isolation pool away from public view where Oahu Monk Seal Volunteers and NOAA staff monitored the seal for 24 hours. The seal was fed herring and was observed playing under the outflow pipe of the pool at the Waikiki Aquarium. The following day she was transported to U.S. Marine Corps Base Hawaii (MCBH) for anesthetization, investigation and potential surgery.



MCBH houses a surgical facility designed and exclusively used for marine mammals. The U.S. Navy built and maintained the laboratory, and in 1993 it merged with the Hawaii Institute of Marine Biology of the University of Hawaii Marine Mammal Research Program (MMRP). Expert marine mammal veterinarian, Dr. Bob Braun, led the procedure. He was assisted by a retired anesthesiologist, Dr. Bruce Heath, ACVA, of the College of Veterinary Medicine at Colorado State University. The list of procedures was as follows: 1) endoscopy of the esophagus and stomach; 2) radiographs of the entire abdomen; and 3) ultrasound of the entire abdomen. In the end, there was no hook present, no evidence of a hook penetrating the lining of the esophagus or stomach, and no pregnancy observed.

We will never know for sure, but the theories of what happened to the hook are varied and many. It is possible that what was thought to be a hook was instead debris, or the hook was somehow regurgitated. The chance of a large hook being passed through the digestive track is very unlikely. This is an important female for the population, and she is now swimming and thriving in the wild back on Kauai. We are very appreciative of MMRP Director, Dr. Paul Nachtigall, and MMRP Animal Curator, Marlee Breese, for their support in this case, as they have for many other abandoned and injured marine mammals. They generously allowed the use of their facility and provided food for this seal. 

Cetaceans

Sperm Whale Carcass Removal, Kahuku, Oahu (Jeff Walters, DLNR, HIHWNMS)

On July 17, 2008 the severely decomposed carcass of an adult sperm whale was removed from a poorly accessible shoreline area near Kahuku, Oahu. The removal effort was the successful conclusion of almost three weeks of challenging work because it was necessary to plan and implement a removal process that was safe and effective, as well as responsive to the needs and desires of the local community and shoreline property owners.

Dead floater sneaks ashore

The first report of the carcass was received by NMFS PIRO in late June 2008, describing a carcass that was floating approximately 12 miles offshore of Kaneohe Bay, Oahu. At the request of PIRO, the operator of a fishing vessel was able to subsequently locate the carcass, take photos, and collect tissue samples. The next report of the carcass located it approximately five miles offshore of windward Oahu, northwest of its previous reported position. Based on the two reported positions, the carcass appeared to be drifting on a trajectory that would have it avoid landfall and drift past the northernmost tip of Oahu. However, on the evening of Sunday, June 29, the Hawaiian Islands Humpback Whale National Marine Sanctuary co-manager, Dr. Jeff Walters, received a call from the Honolulu Fire Department, indicating that the carcass was just 100 yards offshore near Kahuku Point. Early the next morning, the process began to hire a marine salvage company to tow the carcass away from land, until a call was received reporting that the carcass was already aground.



Palaoa mana first challenges, ultimately unites community

The 11 meter long carcass, weighing approximately 10 tons, came aground on a tidal ledge, leaning against a rocky shoreline cliff about one mile east of Kahuku Point. Large sharks were occasionally observed swimming near the carcass. DLNR shark-warning signs were posted along the adjacent shoreline, and the Honolulu Ocean Safety Department was notified and updated throughout the removal process. The carcass was in a relatively advanced stage of decomposition, and the stench could be detected for hundreds of yards downwind.

With the help of a huge hydraulic excavator, the carcass was lifted straight up and over the cliff and then dragged in one piece to a sand dune area about 200 yards away from the shoreline. There, the excavator was used to separate several bones from the carcass before it was loaded into a refuse-hauling truck, which then transferred the carcass in two pieces to a burial site on private property about two miles inland. The bones, ultimately intended for study and education, were loaded into a pick-up truck for transport to a temporary burial site at HPU's Windward campus. Unfortunately, a few of the bones fell off the truck along the way and this created another set of challenges, which were also eventually resolved via teamwork and dedication.

A Native Hawaiian kahu (priest) and his assistant conducted traditional Hawaiian cultural practices for all the people involved, as well as for the spirit of the deceased sperm whale. This included cleansing prayers and a burial ceremony.

Contracted services required for this carcass removal totaled approximately \$25K, and a special fund provided by NMFS to DLNR will be accessed to accommodate these

costs. Other costs not yet tallied would include the hundreds of hours of staff and volunteer time and other in-kind contributions. Heavy equipment involved in this effort included a bulldozer, front-end loader, two hydraulic excavators, several pick-up trucks, and a large trash-hauling truck. Related supplies included numerous large (4") nylon lifting straps (slings), 10-ton shackles, heavy line, steel cable, tarps, and large knives and saws. Essential equipment operating and property access services were provided by Mr. Jeff Wallace (Continental Pacific, LLC). Mr. Russell Jenks was also valuable in helping us determine appropriate and efficient removal methods. NOAA and DLNR would also like to thank NOAA OLE and DOCARE for the enforcement support provided. Finally, appreciated by all was the wise and kind support of kahuna kakalaleo Sam Ohukaniohia Gon III and Kehaulani

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and efficient removal methods. NOAA and DLNR would also like to thank NOAA OLE and DOCARE for the enforcement support provided during some of the early, tense discussions with a few unhappy community members. This ultimately led to a solution with which everyone seemed happy. Finally, appreciated by all was the wise and kind support of kahuna kākaleo Sam 'Ohukani'ōhi'a Gon III and Kehaulani Kruse. Ms. Kruse recently underwent 'ūniki as chant and protocol practitioners and was trained under Kumu John Keola Lake (now deceased).



Cuvier's Beaked Whale Strands on Molokai

On July 28, 2008 Molokai residents discovered a 15 foot Cuvier's beaked whale (*Ziphius cavirostris*) stranded on the mudflats about 100 yards offshore. The whale was still alive, and attempts were made to push it out to sea multiple times. Each time the whale re-stranded. NOAA volunteers, Julie Lopez, Diane Pike, and Bill Puleloa (DLNR) were the first of the MMRN to respond. The Molokai Fire Department and Department of Public Works generously provided a jet ski, heavy equipment, water pump truck and flatbed truck, as well as assistance in holding and moving the whale. The Molokai Police Department handled traffic and crowd control. David Schofield arrived at the scene that afternoon, and he was soon followed by Nicole Davis (NOAA PIRO/HPU), Dr. Brenda Jensen and Frannie Nielsen (Hawaii Pacific University).

The whale was finally restrained in a stretcher and kept comfortable in hip-deep water by 8-14 volunteers. NOAA contract veterinarian, Dr. Gregg Levine, arrived on scene later in the afternoon, and carefully assessed the whale. The whale was deemed not releasable, and the decision was made to humanely euthanize it. The 2,000-5,000 pound carcass was then transported to a waiting Coast Guard C-130 at the Molokai airport and flown to Oahu with the veterinarian, HPU and NOAA personnel. Once on Oahu, the carcass was transported by Dr. Kristi West and the HPU Stranding Team to the university where it was packed in 1,500 pounds of ice for the night.

The following day, from 8am to 4pm, a large team of people including veterinarians, HPU staff, faculty, students, and biologists from DLNR and NOAA worked tirelessly to complete the necropsy process. The beaked whale was determined to be a sub-adult male, in good body condition, with no obvious signs of ship strike or fishery interaction. Tissue samples were collected, followed by scans (both magnetic resonance imaging and computer tomography) of the whale's head. The samples and images are currently in the lengthy evaluation process to hopefully determine the factors that caused the whale to strand. Although we may never understand why this Cuvier's beaked whale stranded on Molokai, other valuable information will certainly transpire from the all the hard work of everyone involved.



Network News

Cetacean Stranding Response Training Held on Maui

On Saturday, August 23, 2008 Nicole Davis (Maui Marine Mammal Response Program Coordinator, NOAA, HPU) and Dr. Kristi West (Stranding Program Coordinator, HPU) conducted an all-day training for cetacean stranding response volunteers on Maui. Twelve



people attended the training, including individuals from Hawaiian Islands Humpback Whale National Marine Sanctuary and DLNR. The lessons were taught by Dr. Kristi West, who focused on past stranding events, Level A data, morphometrics and necropsy. Jessica Aschettino-Watkins (HPU Stranding Team) reviewed cetacean species identification, and Whitney White (HPU Stranding Team) discussed on-site protocols. There was a wide array of stranding and marine mammal experience in the room which led to great discussions throughout the training. At the end of



the day, everyone was familiar with the fundamentals of responding to a stranded cetacean.

What Can You Do to Help?



Go to the website of The Marine Mammal Center, a NOAA Monk Seal Recovery Partner:

<http://www.marinemammalcenter.org>

or go to:

<http://www.marinemammalcenter.org/learning/comm/monksealrecovery.asp>

Oahu Volunteer's website:

<http://www.monkseal.org>

or go to:

<http://www.monksealmania.blogspot.com>

Acknowledgements and Thanks for Work Well Done

NOAA NMFS would like to acknowledge the following volunteers and agencies:

- The U.S. Coast Guard for their ongoing support of NOAA marine mammal response missions
- All Oahu volunteers who helped to manage and monitor the two simultaneous pupping events on the north shore.
- The Waikiki Aquarium and NOAA staff and volunteers who assisted with the rescue and care of "4DP" for six days
- Marine Corps Base Hawaii for their support of the "4DP" investigation and allowing NOAA to build a shoreline pen for "KP2"

NOAA NMFS would like to acknowledge the following authors for their ideas and contributions:

- Main Hawaiian Islands 2008 Pupping Update (Tracy Wurth, PIFSC)
- Sperm Whale Carcass Removal, Kahuku, Oahu (Jeff Walters, DLNR, HIHWNMS)
- Cuvier's Beaked Whale Strands on Molokai (Nicole Davis, NOAA PIRO, HPU)
- Cetacean Stranding Response Training Held on Maui (Nicole Davis, NOAA PIRO, HPU)

Images From the Field



Seal gets a close look at a dolphin research vessel off Waianae, Oahu



Mom and pup photographed from the air over Kauai during the seal count in April



Monk Seal team on Kauai (Mimi Olry, Shawn Farry, and Wendy McIlroy) removing a hook



Sperm whale floating dead 100miles south of Kauai, July 25, 2008



HPU and DAR staff look at the whale carcass. Foreground ti was left in respect by the Kahu