Pacific Islands Region
Marine Mammal Response Network Activity Update

January – April, 2010,
#14

NOAA FISHERIES SERVICE

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Monk Seals

First pup of the year!

The first pup of the year was born to RI15 at Kalaupapa, Molokai on 3/12/10. This is the 2nd pup for this 6-year old mom. She first pupped in 2008 at 4-years old. Her 2010 pup is a female and was recently tagged. The pup's ID is RT00 (tags:T00 and T01). RI15's first pup, RW00, is occasionally seen on the west side of Molokai.

RI15 and her pup on Molokai

Double Dehooking in One Day

For several weeks in early February, the Kauai Monk Seal Conservation Hui were tracking two young hooked seals RW06 and RA36. On February 17, 2010, RW06 was sighted on the beach with the hook still imbedded in the lower left corner of her mouth. The NOAA team and Kauai volunteers located this two year old female past Numila Pond and successfully removed a two inch circle ulua hook from her mouth. NOAA contract veterinarian, Dr. Gregg Levine, cut the hook into three pieces so that he could extract it from her lip.

Shortly after, the team received a report of two seals on the beach at Mahaulepu. One of the seals was RA36, a pup who was seen the day before with a small hook in the skin above its right eye. The volunteers quickly set up a seal protection zone around the animals in order to ensure that the de-hooking team would reach the seal before it went back into the water.

RW06 with a two inch Circle hook used for catching Ulua in her lip

A total of three "damashi" hooks were removed from RA36. Damashi hooks are small and usually tied to a single line to catch bait fish. A total of three hooks, a hook above the right eye, the left muzzle and above the right rear flipper,

were all successfully removed. The team worked carefully and quickly only handling the seal for a minute and half. Volunteers and staff monitored both seals in the days and weeks following the de-hooking and reported both seals to be in fine condition. It was very fortunate that both seals were in safe areas for capture and that the seals were in close proximity to each other allowing the team to reach the site quickly. NOAA sees the removal of hooks from two seals in a single day as a huge accomplishment, and contributes most of the success of this event to the large Kauai response team effort. Unfortunately, these incidences are a sad reminder of the increasing number of interactions between monk seals and fishing gear.

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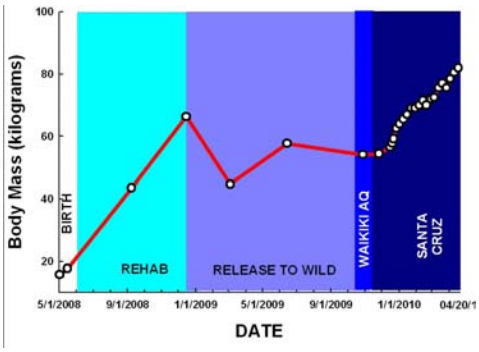
KP2 update at Long Marine Laboratory University of California Santa Cruz (UCSC)

It has been approximately five months since KP2 made the journey to his temporary home at Long Marine Laboratory in Santa Cruz, California. In our last update we reported that he had adjusted very well to his new surroundings. Upon arrival, initial efforts were focused on stabilizing KP2's health and ensuring that he was gaining weight normally. This involved developing a mixed fish diet that he would eat consistently both in water and on land. KP2 gained weight quickly as a result of this transition. Since arriving at UCSC he has shown a 52% increase in body mass.

In January, KP2 began a research project that was focused on measuring his resting metabolic rate. This would allow scientists to calculate how much energy (calories) his body burns when at rest. The body must burn energy at rest to keep up normal functions such as breathing and heart rate. KP2's resting metabolic rate can be measured by looking at his breath. This is very similar to how they test resting metabolic rate in humans and other animal species. KP2 is currently being trained to station in the water beneath a clear dome that serves as a metabolic hood. A sample of air is taken from the hood and analyzed. As a result of this study, scientists have measured the resting metabolic rate of KP2 at routine pool temperatures (21-23°C). They are beginning to test cooler water temperatures to evaluate the thermal preferences of Hawaiian monk seals.



The trainers at UCSC are also working on a wide variety of medical behaviors such as lying quietly for body exams and body temperature (skin and rectal) measurements, as well as chin stationing for eye exams.

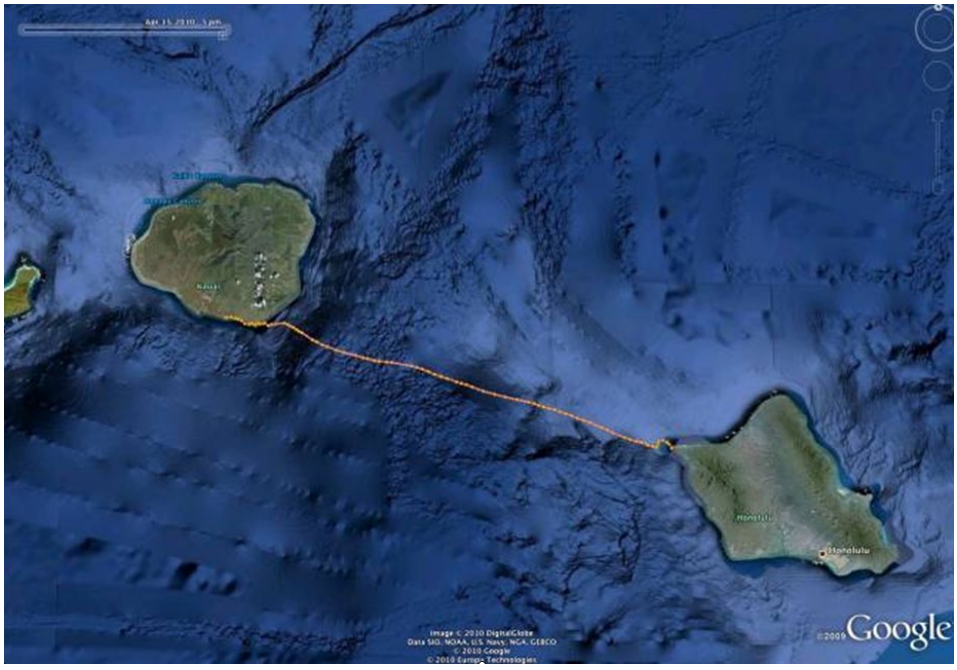
(top) Beau Richter, head trainer at UCSC, trains KP2 to remain still for medical behaviors

(above left) KP2's sits patiently as scientists at UCSC measure his resting metabolic rate

(above right) KP2 has shown a healthy positive weight gain since arriving at UCSC

R012 Takes a Non Stop Journey from Oahu to Kauai

The Pacific Islands Fisheries Science Center (PIFSC) recently outfitted R012 with a satellite tag. On April 12th, he launched from Kaena Point on Oahu and made a 21 hour trip to Kauai. The most interesting finds are the straight track of his journey as well as two types of dive patterns observed. At the beginning of his journey the image shows him diving to the bottom to feed. As he makes his way towards Kauai, he begins a series of traveling dives. Traveling dives are a little more rounded and much shallower than foraging dives. The image even shows him traveling over the abyssal depths of the channel. Dr. Charles Littnan of PIFSC commented that the "new cellphone technology and Google Earth reveals so much about these impressive seals."



R012's journey from Oahu to Kauai gives scientists valuable information of movement patterns of the Hawaiian monk seal

7th Semi-annual Hawaiian Monk Seal Count

The semi-annual monk seal count takes place every 3rd Saturday of April and October. Over 300 volunteers participated around the State of Hawaii. Every main Hawaiian island (MHI) was involved with the count which was headed by a number of federal, state, and non-profit organizations: Kauai Monk Seal Conservation Hui, Hawaiian Monk Seal Response Team Oahu, Maui/Lanai - NOAA Fisheries Marine Mammal Response, Molokai Marine Mammal Response Team, Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS) on the Big Island, Hilo Marine Mammal Response Network, Kahoolawe Island Reserve Commission and the residents of Niihau.

	April 28 2007	October 20 2007	April 19 2008	October 18 2008	April 20 2009	October 17 2009	April 17 2010
Kauai	13	6	13	14	16	14	5
Oahu	6	5	14	9	7	9	8
Molokai	19	7	8	15	11	9	12
Maui/Lanai	1	3	0	5	0	4	4
Kahoolawe	2	1	2	0	1	2	2
Big Island	0	1	1	5	0	1	1
Total	**41**	**23**	**38**	**48**	**35**	**39**	**32**

Table: Summary of the data collected during the semi-annual MHI monk seal counts between April 2007 and April 2010

Cetaceans

Dead Whales Tell Tales

Five whale carcasses came ashore on the islands of Oahu, Maui, Big Island and Molokai during the time period between mid-January to early March 2010. Is this an alarming trend or just natural levels of mortality?

On January 14, 2010 the remains of a sub-adult humpback whale were spotted within the fringing reef off of Punaluu, Oahu. Although the animal was severely decomposed, signs of entanglement scarring could still be identified. It is unclear as to whether this was the cause of death.

A sub-adult humpback whale washed up off of Punaluu, Oahu. This image taken from a HH65 Coast Guard helicopter.

The second stranding was reported on the southwest side of Molokai on February 21, 2010. Hawaii Pacific University and NOAA suspect that this whale also had evidence of human interaction with signs of ship strike wounds. Further investigation, through the analysis of skeletal remains, are continuing although the tissues were too decomposed to determine cause of death.

A week later several more dead whales were reported. The third whale washed ashore in Pololu Valley on the Big Island. This carcass was severely decomposed but is thought to be a sperm whale. The same day a seven foot portion of a carcass of unidentified cetacean species washed up on the Keanae Peninsula of east Maui. Not even 24 hours passed when NOAA received the report of a fifth stranded whale at Kahakuloa Valley, in northeast Maui. This animal was also in a state of advanced decomposition and species could not be determined at the time.

In all of the above cases, the carcasses were too decomposed to gain valuable biological information or to discern cause of death. While five carcasses in a span of two months may seem like a large number in such a short time, it is not a cause for alarm. High numbers of Humpback whales migrate to Hawaii every winter from rich feeding grounds in Alaska. In 1993, the best estimate for this population was 4,500 individuals. If they have increased at the estimated rate of 10%, as many as 19,000 whales may use Hawaiian waters each season. Scientist also estimate that as many as 274 neonates and 126 adult humpbacks could die in waters off the main Hawaiian islands each year. The majority of carcasses most likely drift away, are eaten by sharks or sink. Still, scientists and managers are surprised more carcasses are not washing up on island coasts. Public awareness, weather and accessibility are all factors that influence whether or not the network hears about or responds to a large whale stranding.

The hard work of the following should be recognized: Hawaii Pacific University, University of Hawaii at Hilo, DOCARE, Hawaii Department of Land and Natural Resources, The Humpback Sanctuary, NOAA Protected Resources on Maui, the volunteer teams on Molokai, Big Island and Maui and the Hawaiian Cultural Practitioner network. All communicated effectively to ensure safe responses to these events.

Rare Whale Stranding on Maui

A Longman's beaked whale (*Indopacetus pacificus*) stranded on March 22nd at Hamoa Beach in east Maui. Nicole Davis, Maui Marine Mammal Response Coordinator (NOAA Fisheries), received the report from Maui Police Department of a live animal thrashing near shore. The animal died within a few minutes. After a Hawaiian pule (blessing/prayer) was performed, the 12 foot long carcass was collected and transported to Kahului. The 1,400 lb whale was shipped to Oahu the next day for a CT scan and necropsy conducted by Hawaii Pacific University.

DNA results have confirmed the identification of this rare beaked whale species also known as the Indo-Pacific beaked whale. Preliminary results show that other than a shattered jaw this young male was in excellent body condition. CT scans revealed that it's upper and lower rostrum (jaw/beak) were shattered. This animal also had many fresh cookie cutter shark bites which, although non-life threatening, may be an indication

This Longman's beaked whale is believed to be only the 8th specimen in the world that has been examined by scientists.

of spending a lot of time at the surface due to some kind of disease process. This animal had an empty stomach with irregularities found in some organ systems. Many tissues and biological samples have been submitted to a mainland laboratory for further testing. This Longman's beaked whale is believed to be only the 8th specimen in the world that has been examined by scientists.

2009/2010 Humpback Whale Disentanglement Season is a Success

The 2009-2010-humpback season was one of the busiest and most successful seasons for the Hawaiian Islands Large Whale Entanglement Response Network. This past whale season (Nov 1, 2009 – April 28, 2010) the network received 32 reports of entangled humpback whales. Nineteen of these reports were confirmed and amounted to 11 different animals entangled in various types of gear. The network mounted 15 on-water responses, which resulted in 3 animals being successfully disentangled. This represented a success rate of nearly 43% for those animals that were candidates for disentanglement (i.e. a life threatening entanglement) and in which a response could be mounted (i.e. weather, time-of-day, how far offshore). On Jan 7, 2010, a fourth animal was able to free itself just as the response team arrived and over 1,100 feet of line was recovered.

Of the gear removed or documented on the animals this season, 1 was longline, 1 monofilament (hook and line), 3 local crab pot (trap) gear, and 6 were not identified (unknown). In addition to local pot gear, 7 humpback whales over the last 8 years have been documented entangled in pot gear from Alaska. The farthest was set a straight-line distance of 2,450 nm from Hawaii.

While the season was highly successful, not all the animals were freed of gear. Two animals could not be responded to due to the remoteness of the location, weather and/or time of day. Two animals did not have life threatening entanglements (one animal was able to release itself from the entanglement, while the other was just hooked). Four animals were not re-sighted despite extensive search efforts. One animal, however, was able to free itself just as the response team arrived and over 1,100 feet of line was recovered.

The season was unique in several ways. First was the predominance of entangled juveniles. Also, many of the initial reports originated off either the Big Island, including the windward side, or Oahu, rather than Maui. In addition, two-thirds of responses involved aerial support from the United States Coast Guard (USCG). Lastly, there was an increased involvement of network members. Large whale disentanglement is a dangerous undertaking requiring certain skills, training, proper equipment, and the right working conditions. Because of inherent

What Can You Do to Help?

To report a stranded or injured dolphin or whale, please call the NOAA Marine Mammal Emergency Hotline at 1-888-256-9840.

Stranded dolphins and whales are generally sick or injured and require medical attention. **Do not approach, handle or push the animal back into the sea.** Coming to shore may be a way for the sick or injured animal to prevent drowning and also avoid predators. By calling the NOAA Hotline immediately, you will receive guidance on the best way to help the stranded animal.

(above) Ed Lyman (HIHWNMS), David Schofield (NOAA Fisheries) and David Nichols (DLNR/DAR) draw closer to the entangled whale to make their final cut.

(above) This 30 foot whale keeps an eye on the response team as they attempt to free it of its gear on Christmas Day.

(below) From left: Ed Lyman (HIHWNMS), Eric Roberts (USCG), Chad Yoshinaga (PIFSC) and Marie Chapla-Hill (PIFSC) assess a sub-adult humpback whale anchored in gear off Haleiwa, Oahu.

risks to the animal and rescue team, the network must follow specific protocols based on authorization and permitting. Ed Lyman and David Mattila of NOAA's Hawaiian Islands Humpback Whale National Marine Sanctuary and David Schofield of NOAA Fisheries coordinate the large whale entanglement response effort. This season, 11 network members were directly involved in rescue efforts including personnel from HIHWNMS, USCG and NOAA Fisheries.

Much credit also goes to the on-water community of tour boat operators, fishermen, and other recreational boaters that report, assess and document these entanglements. It is often the case where they even stand by the animals until additional help arrives.

It is important to stress that the main objective of these efforts is to gain information to reduce the threat of entanglement. Although freeing the whales is one goal, each disentanglement brings us closer to understanding the circumstances around the entanglement and what we can do to reduce the impact of human fishing gear on these animals.

Responder Profile

Molokai Marine Mammal response Volunteer Val Bloy completed her 100th Laau Pt. Trek on March 19, 2010. Her final Laau trek total was 109 trips to Laau to identify and photograph seals, seeing 44 different seals in over a 1 ½ year time period. Val moved to the mainland and will be missed. Her parting words: "it was a great adventure and I was privileged to be a small part of the preservation of the Hawaiian Monk seal."

Special thanks to: United States Coast Guard, Department of Land and Natural Resources, Department of Conservation and Resource Enforcement, Hawaiian Humpback Whale National Marine Sanctuary, Maui Police Department, the boating community and all state wide NOAA Fisheries Service marine mammal response volunteers.

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