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 Marina Islands"

July - September 2007 **Produced by NOAA Pacific Islands Regional Office**

A special *mahalo* is extended to all agency partners and volunteers for their tireless efforts. Please send questions, comments, or requests for information to David.Schofield@noaa.gov.

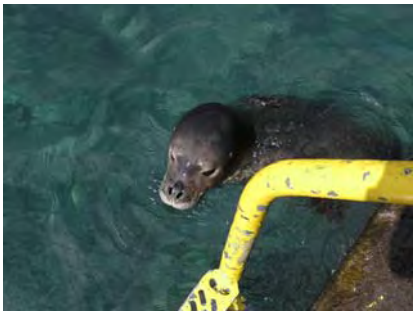
Hawaiian Monk Seal Updates

RO42: A seal with people issues…or…people with a seal issue?

David Schofield NOAA NMFS PIRO, Justin Veizbicke DAR/HIHWNMS

RO42 was born on July 20, 2006, at Papaikou on the Big Island of Hawaii and weaned on September 7, 2006. The seal was then relocated shortly after because of the area's high level of beach use, the potential for human disturbance, and the concern for toxins or pollutants from the nearby stream that runs through this beach. The seal was relocated to the "light house beach area" of the Hamakua coast of the Big Island.

The seal then moved to Kapanaia, where again, she was found close to beach users and near to a potentially polluted stream. The seal was relocated a second time to Lapakahi State Park in North Kohala in September 2006. From the months of September – April, very few sightings of the seal were reported. Images received showed the seal to be thriving. However, from April – August, numerous accounts of this pup interacting with humans were reported and documented.



For three months after May 2007, this seal was reported to interact with people by swimming with them, accepting fish from spear fisherman and allowing people to hug and kiss her. Her behavior eventually became aggressive, and she was "blocking" people from coming out of the water, once to the point of "charging" a spear fisherman in the water. For her safety and that of the public, there were plans were put in place to collect and relocate her to a more remote part of the Big Island.

Collection, Transport, and Release

"RO42" hauled out at Mahukona Pier at about 1300 on August 23, 2007. Crowding boards were used to prevent her from entering the water, while a pen structure was placed around her to hold her prior to transport. "R042" was collected by David Schofield and Justin Viezbicke (permit # 932-1489-09) at 1330 on August 23, 2007. A chain-link fence and pen structure were erected around a shade tent that was placed above the animal. The seal was sprayed periodically to assist with cooling, and

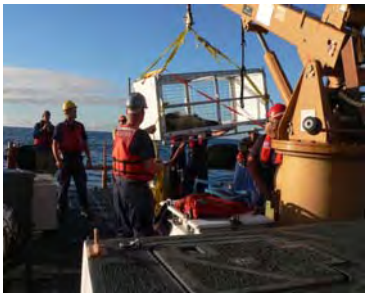
respiration rates were taken by volunteers. Outreach was provided to the public while the collection team waited for the University of Hawaii (UH) at Hilo transport team to arrive.



Left: UH Hilo volunteer team organized the ground transport of the seal from Mahukona to UH Hilo. An extra truck followed for support. *Middle*: At UH Hilo, the seal was sampled and fitted with satellite and VHF transmitters. Student volunteers monitored the yearling while the biomedical samples were being processed and before the seal was transported to the USCG Cutter *Kiska*. *Left*: A full suite of medical samples were obtained from the seal prior to the placement of the satellite equipment. Dr. Gregg Levine (left) processed the samples that were collected with the help of UH Hilo students and volunteers.

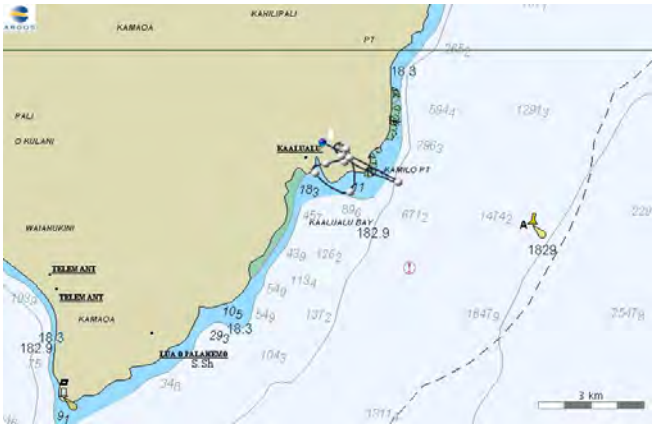






The seal was loaded onto the USCG *Kiska*.

The seal cage was hung over the side of the cutter with two safety lines and an additional line attached to the door to allow it to quickly open. The cage was tilted to encourage the seal to enter the water. "RO42" surfaced just after release on August 24, 2007.



The image to the left are tracking maps provided by Dr. Charles Littnan, the acting Monk Seal Scientific Team Lead and the Chief Foraging Biologist of NOAA Pacific Islands Fisheries Science Center (PIFSC). During nearly six weeks of tracking, the young seal moved south from her release sight and spent most of her time near Kamilo Point on the Big Island. The lines of her track on land were erroneous, but she was making trips out to deep water occasionally, most likely to feed. Although this was a successful relocation that required a significant amount of assistance and dedication, RO42 may return to the same beaches or find new areas to interact with people. Her future, however, is unpredictable as the saga continues.

The Monk Seal and the Puffer Fish

Nicole Davis, NOAA Maui Marine Mammal Response Program Coordinator

On July 19, 2007, a call came in to the Maui Police Department reporting an entangled seal in Kahului Harbor. Fortunately, it turned out to be a Hawaiian monk seal that was not entangled, but rather playing with a puffer fish. The "white round float and red line" were in fact a fully-expanded puffer fish floating at the surface. Since that first report, there have been many more, not only in Kahului Harbor but also on the upper west side and now recently along the south shore of Maui. The reports all included stripe-belly puffer fish and the same Hawaiian monk seal, RH44 (adult female). She was easily identifiable by a large facial scar behind the right eye. RH44 has assaulted up to five puffers in an area before moving on. She performed exciting acrobatics with her victim, including tossing the fish in the air with her mouth and also hind flippers, flinging it from side to side, diving with it and even leaping out of the water and landing on the fish. She does not appear to consume her prey. As of September 21, 2007, RH44, photographed with her latest victim by volunteer, Tom Elliot, was headed along the southwest side of Maui. Puffer fish, beware!

Photo Credit: Tom Elliot

Cetacean Strandings / Entanglements / Collisions

Spinner Dolphin Stranding

Whitney White, Hawaii Pacific University Marine Mammal Student Responder

A call was received regarding a stranded dolphin near the North Shore of Oahu. The location of the dolphin was later discovered to be next to Kahana Bay on the east side of the island. Student responders from the Hawaii Pacific University (HPU) were sent to retrieve the dolphin using their stranding gear. Dr. Kristi West (HPU) coordinated the necropsy with the Small Animal Facility on UH and a veterinarian. When the student responders arrived, the dolphin was originally spotted floating in the waves, and had moved three houses in the two-foot swells. Although the mixture of the two-foot swells and the rocky coast made the shoreline choppy and difficult to see, the dolphin was found wedged among the rocks close to shore. The responders dislodged the animal's rostrum from the rocks, loaded it onto a stretcher, and lifted it up to higher ground. The animal was transported to UH for the necropsy.

Code 5 Cetacean Discovered on the Big Island

Melissa Netze, UH Hilo Marine Mammal Response Program

A national coding system, under the Marine Mammal Health and Stranding Response Program, is in place to provide a format for gauging the level of decomposition of marine mammals: Code 1 is alive, Code 2 is fresh dead, Code 3 is moderately decomposed, Code 4 is severely decomposed and Code 5 is mummified and/or with bones present.

A call was received on Tuesday, July 17, 2007, at approximately 11:30 a.m., regarding a dead whale on a beach at Kaluōhonu Point, an area located near South Point on the Big Island of Hawaii. The stranding was reported by Bill Gilmartin, who frequently conducts beach clean-up activities in the area. The response team from UH Hilo arrived on site at approximately 15:00 and found the animal in an area with large amounts of marine debris distributed on the shore. The animal was classified as a Code 5 due to the extent of decomposition that was to the point of mummification. It was presumed that the animal had been dead for several weeks prior to being discovered.

Based on tooth counts and external characteristics, the animal was suspected to be a juvenile melon-headed whale (*Peponocephala electra*). Age estimates were qualitative and based upon hollow teeth (< 0.5 yr) and small body size (1.23 m). The length at birth for this species is typically 1 m. There were two large cavities in the carcass, but it was impossible to tell if the wounds were pre- or post-mortem. The exact cause of death remained unknown. A large number of the bones and biological samples of skin and muscle tissue were collected and archived at the UH Hilo Department of Marine Science.

Beaked Whale on Guam

Brent Tibbatts, Department of Agriculture,
Division of Aquatic and Wildlife Resource, Mangilao, Guam

On Thursday, August 30, 2007, Dr. Frank Camacho reported to the Division of Aquatic and Wildlife Resources that a stranded whale was found in Piti. The Conservation Officers and Fisheries Technician (Carlos Quintanilla) were notified and went to the site. A response team arrived at approximately 8:00. One of the commercial divers who first found the whale was in the water with it, trying to push it into deeper water. Twice he had gotten the whale into the Tepungan channel, only to have the whale return to the reef flat.

Several responders entered the water and helped to guide the whale into the channel. The whale was covered with scratches, none of which appeared to be deep, and it appeared that the whale stopped bleeding. After four of the responders pushed the whale out to Tepungan channel, members of Guam Fire Department used jet skis and personal watercraft to herd the whale out towards the reef margin. The whale stayed at the surface, swimming slowly and breathing every few seconds. Responders stayed with the whale until it was about ½ mile offshore. The whale submerged and did not resurface. After photos were sent to some various experts, the animal was later identified as a Cuvier's beaked whale (*Ziphius cavirostris*).

Network News

Three Prescott Grants Awarded to Pacific Islands Regional Stranding Network Participants.

HPU submitted a grant proposal to the Prescott Grant Program entitled *Continuing to Enhance Cetacean Necropsy Capabilities in the Main Hawaiian Islands,* and was awarded $100,000. Likewise, Sea Life Park by Dolphin Discovery was awarded $100,000 for their proposal entitled: *Development of Live Cetacean Stranding Response Teams on the Main Hawaiian Islands and a Long-term Cetacean Rehabilitation Facility on Oahu, Hawaii*. Representatives from the Commonwealth of the Northern Marianas, Guam, and American Samoa also submitted a collaborative grant proposal for $80,000 entitled: *Building the capacity of U.S. Insular Areas for Marine Mammal Stranding Response* (see article below)*.*

Northern Marianas College obtains grant to study marine mammal stranding
Courtesy *Saipan Tribune*, Thursday, August 16, 2007, By Marconi Calindas, Reporter

The Northern Marianas College (NMC) won a federal grant as part of the Pacific region's development of the Marine Mammal Stranding Network. "This is the first time that the CNMI has been included in the Prescott Grant Program," NMC marine biologist John Furey said. Furey, who wrote the grant for the college in cooperation with Michael Tenorio and Michael Trianni of the CNMI Division of Fish and Wildlife, along with his colleagues at NMC and co-principal investigators in Guam and American Samoa, said the $80,000 regional grant would be shared with Guam and American Samoa. "NMC's Art Instructor Barry Wonenberg and former NMC Science Instructor, Simon Habeggar, are also co-investigators for the project, which will include the development of an interpretive display of a recovered whale skeleton and cetaceans known from the waters surrounding our islands in general," he said. Furey said the main intent of the grant is to address issues surrounding the stranding of marine mammals, from a scientific perspective and via a regionally cooperative approach. Furey said that formal scientific necropsies would be carried out on beached dead marine mammals and the presence of living dolphins and whales will be monitored, scientifically documented, and shared region-wide.

NOAA Signs New Recovery Plan for the Hawaiian Monk Seal

NOAA Fisheries Service signed and implemented a new Recovery Plan for the Hawaiian Monk Seal in a ceremony held at the Waikiki Aquarium on August 22, 2007. Sen. Daniel K. Inouye and William T. Hogarth, Assistant Administrator for NOAA Fisheries Service, spoke at the ceremony, before a crowd of honored guests including volunteers, NOAA staff, and organizations that contribute to monk seal recovery efforts. This is the first time that changes have been made to the plan since it was originally drafted in 1983. Below is a summary sheet of the revised Recovery Plan.

Pacific Islands Regional Office
NOAA Fisheries Service

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The Recovery Plan for the Hawaiian Monk Seal

The Hawaiian monk seal (Monachus schauinslandi) is in crisis. Although the population remained stable in the 1990s, the population is now declining at a rate of about 4 percent per year. Biologists estimate the current population at about 1200 individuals, and modeling predicts that the species' population will fall below 1000 animals within the next three to four years. This places the Hawaiian monk seal among the world's most endangered species.

For more than two decades, NOAA scientists have worked to manage, study, and recover the Hawaiian monk seal. Although their numbers would be much lower if nothing had been done, significant and potential threats continue to threaten this species. Most importantly, very low survival of juvenile animals, believed to be principally related to food limitation, has persisted for many years across much of the population. Unless the number of young females is increased, it is feared that there will not be enough reproductive animals in the populations for recovery to occur.

A requirement under the Endangered Species Act, recovery plans detail the threats that are facing the species and the actions that are needed to address those threats. This revised Recovery Plan for the Hawaiian Monk Seal is the first revision since 1983, and it details the management and research that is needed to give Hawaiian monk seals the best chance for survival. The plan details more than $30 million in funding requirements over the first five years.

Threats to Hawaiian monk seals

- Very low survival of juveniles and sub-adults due to starvation (believed to be related to food limitation) has persisted for many years across much of the population
- Entanglement of seals in marine debris continues to result in significant mortalities
- Predation of juvenile seals by Galapagos sharks
- Human interactions in the Main Hawaiian Islands including recreational fishery interactions, mother-pup disturbance on popular beaches, and exposure to disease
- Hawaiian monk seal haul-out and pupping beaches are being lost to erosion in the Northwest Hawaiian Islands (NWHI)
- Hawaiian monk seal prey resources in the NWHI may have been reduced as a result of climate cycles and other factors
- Potential disease outbreaks could devastate these seal populations due to their small size and limited geographic range

Due to low juvenile survival and an ageing, breeding female population, there will not be sufficient replacement of breeding females, and birth rates subsequently will decline. In order to preserve the future reproductive potential for recovery, one of the highest priorities being pursued by NMFS is the development of a captive care program to nutritionally supplement juvenile female seals. The goal of the program will be to increase the survival of female seals during the critical juvenile life stages that are now experiencing low survival. Without such efforts, the loss of young females will significantly decrease the recovery potential of the species, as there will not be enough females in the population.

Recovery of the Hawaiian monk seal depends upon a range of comprehensive actions detailed in the Recovery Plan, as well as the full participation and support of federal, state and private stakeholders.

A copy of the Recovery Plan for the Hawaiian Monk Seal can be downloaded from the Pacific Islands Regional Office website http://www.fpir.noaa.gov/PRD/prd_hawaiian_monk_seal.html

Responder Profile

2007 Marine Debris Team Removes Entanglement Hazard from Rabbit Island

Stephane Charette, NOAA Pacific Islands Fisheries Science Center

The NOAA Pacific Islands Fisheries Science Center Marine Debris Team successfully collected a large net from the near shore waters just west of Rabbit Island, one of the most important refuges for the Hawaiian Monk Seal in the main Hawaiian Islands.

Rabbit Island, located off the Southeast side of Oahu.

D.B. Dunlap, a volunteer for the Oahu Monk Seal Response Program, spotted the piece of debris from the Oceanic Institute in Waimanalo, where personnel keep a watchful eye on resident seals. Upon spotting the entanglement hazard, David Schofield contacted Kyle Koyanagi from PIFSC to request the help of Marine Debris Specialists to recover the net before leaving on their next cruise to the Northwestern Hawaiian Islands.

150lb conglomerate net collected off Rabbit Island.

Derelict fishing gear (DFG), known to be prevalent in Hawaiian coastal and marine habitats, presents a potentially lethal entanglement hazard to numerous marine species, most notably the critically endangered Hawaiian monk seal, the threatened green sea turtle, and the endangered humpback whale. DFG may also damage or smother sensitive reef habitat, act as a vector for the introduction of non-native species, and present a hazard to boat navigation.

Members of the PIFSC Marine Debris Team launched two small boats from Portlock and made the transit to the Oceanic Institute, where they were joined by David Schofield who helped document the effort. The 150 lb net was found floating about 20 feet from Rabbit Island in approximately 6 feet of water. Multifilament and gillnet pieces were attached to live coral reef and small foam floats bobbed at the surface. The removal of all nets near Rabbit Island is critical as it is known to be an offshore island with low level harassment, and therefore, is a common place for monk seals to rest, give birth, and wean their pups. This project was a great success due to the collaboration of several different agencies of which we would like to thank. Removal of these nets is one of the many steps being made to help the diminishing population of Monk seals to recover. For more information please visit the PIFSC website. http://www.pifsc.noaa.gov/cred/mdr.php

Of special note was the fact that two monk seal "regulars" were resting on the beach about 25 yards away from the removal operation and never reacted to the operation. Nice work!!! Special mahalo goes out to the following Marine Debris team members: Stephane Charette, Kevin O'Brien, Jubilee Felsing-Watkins, Heather Sandison, Jonathan Blodgett, Amy Long, Derek Levault , Max Sudnovsky.

Images from the Field

5AY and 6AA rest on the beach in Waimanalo, overlooking Rabbit Island. Oahu's Rabbit Island is one of the most important resting and pupping beaches in the main Hawaiian Islands. (Photo: DB Dunlap)

NOAA Fisheries Pacific Islands Regional Office, Protected Resources Division staff took a field trip to Kaena Point to discuss monk seal and sea turtle issues. Note the monk seal that was resting on the rocky spit. This was N9, who was born in nearly the exact spot almost a year before this image was taken on August 31, 2007. *From left*: Jennifer Metz, Chris Yates, Kim Maison, Krista Graham, Jane LeFors, David Schofield, Stephani Harrison, Lisa Van Atta, Michelle Yuen.

Common reports to the Pacific Islands Marine Mammal Response Network have included monk seals that were gouged or poked with a sharp circular instrument, or shot with circular "bullet" wound being evident. These reports most always were explained as the remnants of cookie cutter sharks (*Isistius brasiliensis).* These sharks are deep dwelling and leave circular scars on other species of seals as well as whale and dolphin species around the world. There have even been reports of markings left on submarines! These small sharks are about three feet long, with a circular serrated, small upper mandible, and very large lower mandible that attaches securely. The shark spins and pulls out a perfect circular plug. At right is an image taken by volunteer Karen Harris at Kaena Point of N9 (after the picture above was taken), with a very fresh bite taken from his back. Below are images of the lower jaw of the cookie cutter's apparatus and an illustration of the shark. Below are also photos from Kauai (from Mimi Olry) on what looks like a failed attempt by a cookie cutter to remove a plug of tissue from a monk seal.

Mahalo to all who participated in the 1st Semi-annual Hawaiian Monk Seal Count

- An astounding 41 seals were counted across the main Hawaiian Islands on April 28th

Help make the 2nd Count a success!

- NOAA is looking for interested groups or individuals to participate in a Hawaiian monk seal count
- The goal is to have volunteers & community members counting monk seals on the same date & time on each of the main Hawaiian Islands
- Volunteers will be assigned to a beach location & asked to fill out a sightings form. Digital images of seals will also be very important to send to NOAA
- Join us and support monk seal conservation

Contact David Schofield

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2nd Semi-annual Hawaiian Monk Seal Count

Saturday October 20, 2007

10 a.m. — 1 p.m.