

Alaska Region Marine Mammal Stranding Network

SUMMER 2014 NEWSLETTER

Stranding Photo of the Summer: NOAA Enforcement vessel, Aleutian Wind, tows a humpback whale (SEAK ID #539, aka Max, aka Aequorea) to shore to be necropsied. The necropsy team determined that this whale a victim of a ship strike.



Photo taken by Ed Lyman under permit number 932-1905-01.

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Greetings from the Coordinator

By Aleria Jensen, NMFS

Greetings Network!

As I write this, a crew is mobilizing for the necropsy of a humpback whale in Kodiak which was found draped around the bow of a vessel. Dr. Frances Gulland is flying up from the Marine Mammal Center in CA to lead this effort and several AK vets will be working alongside her, using this as an opportunity to learn from one of the country's leading large whale necropsy and forensic experts.

This is yet another example of the excellent **teamwork and collaboration** which exists in the stranding network, both in-state and across the country. We're fortunate to have such dedicated responders and specialists scattered across Alaska, but also to be able to call on scientific and health-related expertise from the lower 48.

This year has brought some **major milestones**, including:

- Enhanced focus on oil spill preparedness and response (thank you to the AK SeaLife Center for hosting our annual meeting focused on this topic, see pg. 6).
- Continued partnership with NOAA's Hawaiian Islands Humpback Whale National Marine Sanctuary making possible Ed Lyman's 2014 detail to Alaska to continue to build capacity for large whale entanglement response (trainings this year held in Juneau, Gustavus, Sitka, and Petersburg).
- Closure of the Walrus Unusual Mortality Event.
- First successful disentanglement of two subadult male Steller sea lions in Southeast AK.

This year also brings a change to our team here at NMFS. At the end of September, we will bid farewell to **Kaili Jackson**, who will be moving down south with plans to pursue a career in physical therapy. Kaili joined NMFS as a student at UAS in 2008 and since then has been a key member of our AK stranding team here in Protected Resources. She's been our point person for the National Marine Mammal Health and Stranding Database, data summaries and requests, stranding agreement renewals, marine mammal parts loans, gear tracking and sample transfers. Over the years, Kaili has represented the stranding program at naturalist symposiums, Sitka Whalefest and other community forums.



Greetings from the Coordinator Cont.

Kaili has taken part in over 30 necropsies and a number of entanglement responses, and has always brought a fun and can-do attitude to her work. Not to mention her persistence in tracking down elusive data! She will be missed!!

Please join me in thanking Kaili for all her efforts over the past 6 years to support NMFS Marine Mammal Health and Stranding Program. We wish her well in her adventures yet to come...

Best,
Aleria Jensen



Alaska SeaLife Center

2014 Stranding Recap

Halley Wener
Stranding Supervisor
ASLC



Spotted seal from Clark's Point.

The Alaska SeaLife Center's 2014 season began on April 30, with a spotted seal pup from Clark's Point. A non-releasable animal, this spunky little girl has been cared for in the ASLC's I.Sea.U – a flexible supportive care area that offers a glimpse from the public viewing area. She is currently working on making the transition to solid food, and will be cared for by staff mammalogists until she is placed in a suitable facility.

After two weeks of training new interns and easing into our summer routine (a welcomed treat!), in came an early rush of harbor seal pups. Now a month later, ASLC Stranding and Rehabilitation staff are caring for eight young harbor seals

from South Central and Southeast Alaska. All of the pups are expected to be released later this summer or early fall.

ASLC's latest admit came to us mid-June – a two week old sea otter pup from Homer. She is still establishing a routine, but has already learned to suckle from a bottle. Animal Care staff will care for her around the clock until she is able to be placed in a zoo or aquarium with other otters.

A few birds have come our way, but no long term patients. Necropsies to note so far this year include three beluga whales – two adults, one of which was a pregnant female and her fetus, a harbor porpoise and a sea otter pup. Finally, we have been busy on the phone, consulting and coordinating, often times with many of you. It's always a fun way to catch up!

UPDATE 8/11/14 - ASLC stranding and animal care staff are now caring for 14 harbor seal pups, the spotted seal from Clark's Point, and a sea otter pup from Port Moller. Our first harbor seal release of the year is scheduled for this week!



Harbor seal pup abandoned near Anchorage.

Sea Otter Recap for 2014

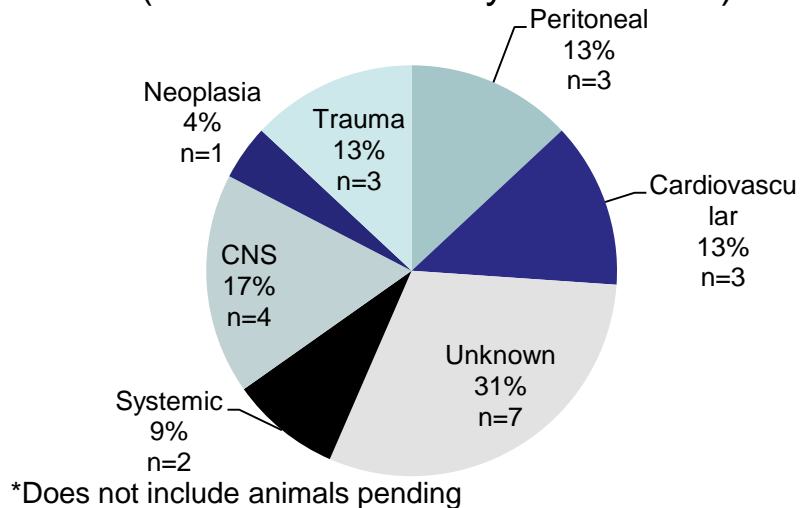
Kristin Worman
Fish and Wildlife Service

Thanks to the efforts of stranding event responders across the state of Alaska, the U.S. Fish and Wildlife Service's Marine Mammals Management Office Sea Otter Health and Disease Monitoring Program has received 43 carcasses for necropsy since January 1, 2014. 38 of these animals are from the south-central stock (Cape Yakataga to eastern Cook Inlet), four from the southwest stock (extending from western Cook Inlet west to the end of the Aleutian Archipelago) which was listed as threatened under the Endangered Species Act in 2005 and one carcass was

recovered from the south-east stock (Cape Yakataga to Dixon Entrance). 23 necropsies have been completed and 20 are pending. Major causes of death continue to include bacteria-associated cardiovascular disease, central nervous system disorders, and trauma. One of the most interesting and challenging cases of 2014 was an adult male sea otter found on the Homer Spit having grand mal seizures in mid-March. This animal was humanely

COD for Alaska Sea Otters in 2014*

(Collected Jan-May 2014 n=23)



Student volunteers assist during a sea otter necropsy.

ethanized by a licensed veterinarian from the Homer Veterinary Clinic. At necropsy, very few gross lesions were noted in this otherwise, grossly normal animal. So far, all tests (biotoxins, virology and microbiology) have returned negative results. Final histopathology and ancillary testing is pending further review, and currently the cause of these dramatic seizures is still ruled as unknown.

2014 Alaska Marine Mammal Stranding Meeting

Kaili Jackson, NMFS

Alaska Stranding Network members were able to enjoy some face to face time this April at the 9th Annual Alaska Marine Mammal Stranding Network Meeting in Seward. The main focus of the week was oil spill response; HAZWOPER classes were offered on Monday and Tuesday, while participation in the meeting Wednesday through Friday served as a refresher course for those previously certified.

Wednesday morning was used to enlighten attendees with a general overview of oil spill response. Sessions were led by Catherine Berg (NOAA SSC), Lee Majors (Alaska Clean Seas), Sadie Wright (NMFS Spill Coordination), and Mike Ziccardi (Oiled Wildlife Care Network). The afternoon was spent diving into the details of roles likely to be filled by network members in the event of a spill, such as reconnaissance, field operations, live animal intake and rehabilitation, and necropsy.

On Thursday, the network participated in its first oil spill drill, taking on Incident Command Wildlife Unit roles and responsibilities. This was the first exposure for most participants to a real spill scenario and the implementation of the Incident Command System. Fortunately, they were able to take advantage of the experience from guest experts to guide the team through.

Attendees split into groups to cover reconnaissance, field operations, live animal intake and rehabilitation, and necropsy taskings. Each team fulfilled assignments and addressed developing issues as the spill

progressed, while practicing communications under the ICS structure. On the final day of the meeting following the drill, network members provided regional updates from 2013, a discussion of stranding response in the remote areas of western and northern Alaska, and updates on the Arctic Ice Seal and Walrus Unusual Mortality Event.



ASLC staff greets attendees as they arrive.



Mike Ziccardi captures the attention of the crowd during the oil response drill.



The purple bus fills up on Friday afternoon to bring folks home after the meeting.

Snow's Bones

Christine Gabriele
Glacier Bay National Park

On June 25, 2014, Alaska's Glacier Bay National Park celebrated the grand opening of "Snow" -- an exhibit of the largest humpback whale skeleton on display in the United States. Snow's life was cut short in 2001, when she was struck and killed as she tried to cross the path of a cruise ship leaving Glacier Bay. A few days later, her body was found by Park biologist Janet Neilson and later examined by veterinarian Dr. Frances Gulland from the non-profit [Marine Mammal Center](#) to verify the cause of death. The cruise line accepted responsibility for the collision, and the skeleton exhibit was funded, in part, from the 2006 legal settlement fund held in trust by the National Park Foundation.



Tail fluke photo of "Snow", also known as "#68" in the [Southeast Alaska Whale Fluke Catalog](#). The markings on a humpback whale tail are as unique as a fingerprint, enabling researchers to track whale life histories.

The National Park Service constructed an open-sided outdoor pavilion to house the display along the beach trail near the public dock. Between 2001 and 2012, cleaning and preparing the bones took over 1,000 hours of work by Park staff and volunteers, followed by the expertise of a professional whale articulation contractor. Dan DenDanto and his crew at [Whales and Nails, LLC](#) did the final cleaning and preparation of the bones, including repairing Snow's damaged skull and fabricating replacements for missing bones. They did an artful job on every aspect of the work. Because Whales and Nails' shop is located near Bar Harbor, Maine, Snow may be the only North Pacific humpback whale ever to migrate (over land!) to the North Atlantic. The skeleton contains 161 bones in all, with a total weight of 3,729 pounds, not including the steel and other structural elements which now hold the skeleton together. The exhibit itself is a work of art, magnificent for its sheer size and the graceful pose that suggests that the whale is in motion.



In July 2001, a necropsy team led by veterinarian [Frances Gulland](#) determined that the cause of Snow's death was blunt trauma including a skull fracture. Several months after the necropsy, the entire skeleton was collected.

Snow's Bones continued....



The exhibit of Snow's skeleton at Glacier Bay National Park is a spectacular sight. At 45 ½ feet in length, it is the largest humpback whale on display in the United States. The skull and mandibles alone weigh over 1,300 pounds.

Scientific observations of Snow's behavior and biology (she was also known as whale #68 in the [Southeast Alaska humpback whale catalog](#)) are found in at least five scientific papers. Snow's recorded history began in Glacier Bay in 1975, when researcher Charles Jurasz first photographed her unique tail markings, and continued for many decades of sightings in Alaska and Hawaii. At the time of her death she was 45 ½ feet long, pregnant and estimated to be about 45 years old. One of her most important contributions was in resolving a long-standing controversy about the lifespan of humpback whales, essential for predicting population growth. Counts of growth-layers in her [earplug](#) revealed that Snow was born around 1957, just prior to Alaska Statehood, when

commercial whaling was still occurring in the North Pacific and elsewhere. This finding helps confirm that the oldest humpbacks killed in 20th century commercial whaling were between 57 and 96 years old. In today's Southeast Alaska humpback whale population, thanks to Jurasz's early work and long term data collection efforts by research groups like J. Straley Investigations, the Alaska Whale Foundation and Glacier Bay National Park, there are whales with sighting histories that span over 40 years.

As stranding network members, we are well aware that whale-vessel collisions are an issue of increasing concern in the world's oceans. Glacier Bay National Park is a very popular Alaska tourist destination and has some of the most stringent requirements in the world for minimizing the risk of whale-vessel collisions. It is also a place with an increasing whale population and narrow passageways with little leeway for mistakes. Snow's untimely death has been a driving force behind the Park's growing efforts to maintain an ongoing dialog with ship operators about whale collision avoidance measures.

Displaying this spectacular and beautiful skeleton is one way to turn Snow's tragedy into an educational opportunity. The exhibit will help keep the ship strike issue in the spotlight as ocean users learn to co-exist with increasing numbers of whales in Southeast Alaska. We hope that this skeleton will inspire Glacier Bay visitors to learn more about whales and their challenges in the marine environment for decades to come.

Hawaii-based research team seeks samples of baleen whale muscle tissue.

Rachel Cartwright
California State University Channel Islands

A collaborative research team including Dr. Kristi West, at Hawaii Pacific University, Dr. Jim Rice at Oregon State University and Dr. Rachel Cartwright, at California State University Channel Islands, is currently in search of samples of baleen whale muscle tissue for use in their study of the developmental physiology of muscle tissue in baleen whales.

The study explores the links between behavioral trends in young baleen whales and essential physiological development during their first natal season. Findings from the study so far suggest an interesting connection between the high levels of activity seen in these young animals and the on-going development of the young whales' ability to breath-hold and sustain extended dives .

Over the last several years, the research team has compiled a substantial sample of humpback and gray whale calf tissue, however tissue samples from juvenile and adult animals remain elusive and hard to find. Consequently, the team is eager to receive samples of muscle tissue from any baleen whales that may become available this season.

The sampling protocol is really straight forward and full details can be obtained directly from Rachel, at rachel.cartwright@csuci.edu. All contributions will be fully acknowledged in up-coming publications and funds are available to help cover costs of shipping.

For more on the project visit www.caringforcalves.org



Calf breaching. Image taken under permit 10018 during permitted research activities.

Samples and Photograph Request- Reproductive Tract Morphology of Female Cetaceans

Dara Orbach
Texas A&M University at Galveston

Many cetaceans possess unusual annular rings and transverse folding of their vaginal walls. Cetacean species vary in the morphology and the complexity of these structures and their

function is unclear. We (Dara Orbach, Ph.D. candidate, Texas A&M University at Galveston, and Sarah Mesnick, Southwest Fisheries Science Center, NOAA Fisheries) are testing alternative functional hypotheses for the evolution of these vaginal structures, including adaptations to mating in the water and the roles of sexual selection and phylogenetics. Our goal is to document and quantify variation by collecting measurements from as many species as possible. We are using samples from all age classes (adults, subadults, calves, and fetuses) and reproductive states (non-pregnant, pregnant, and lactating) to assess the variability and development of reproductive tract structures within and among species.



Dara Orbach and Sarah Mesnick examining a beaked whale reproductive tract.

We kindly request whole reproductive tracts (including the genital opening, vagina, cervix, uterus, uterine horns, and ovaries) accompanied by Level A data from stranded female dolphins, whales, and porpoises that are code 2 or 3. Please freeze the samples in labelled airtight plastic bags until shipment. Expenses related to shipping will be paid in advance or reimbursed. All contributors will be acknowledged in resulting publications.

For any questions about collecting reproductive tracts and for specimens that cannot be collected or shipped, please contact Dara Orbach (orbachd@tamug.edu) for a protocol on how to collect measurements and photographs. Please ship samples to:

Dara Orbach
Texas A&M University at Galveston
Department of Marine Biology
1001 Texas Clipper Road
Galveston, Texas 77553

Announcements

FY15 Prescott Competition is now open

Application deadline is October 8, 2014.

If you are considering submitting an application, please send your requests for an eligibility letter to Aleria Jensen (Aleria.Jensen@noaa.gov) sooner than later to make sure this part of your application doesn't get overlooked. Proposals without an eligibility letter from NMFS cannot qualify for the competition.

Here is the link to the Grants.gov announcement:

<http://www.grants.gov/view-opportunity.html?oppld=258830>

Please don't hesitate to call with any questions!

Pending Reports

Please continue to send any outstanding level
As, pictures and reports to
Kaili.Jackson@noaa.gov.

Thank you for all your hard work!

Looking for necropsy forms and guidelines?

Look no more, check out the google group provided by Kathy Burek
Huntington and Alaska Veterinary Pathology Services:

<https://sites.google.com/site/akvetpath/>

Here you will find the **NEW** "Quick and Dirty Field Necropsy Guide for Humpback Whales in Alaska" developed by Frances Gulland from the Marine Mammal Center in Sausalito, CA, during a visit to Alaska this fall in collaboration with Jan Straley, UAS and Kathy Burek, AVPS. This is specifically meant to address those instances where we are limited as a network from performing a full necropsy by weather, tides, lack of personnel, transport constraints, etc. When you have little time or few resources, what are the most important priorities for sampling and diagnostics?
Keep a copy with your stranding supplies!

Stranding Articles

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Saracco, James F.; Christine M. Gabrielle and Janet L. Nielson. Population dynamics and demography of humpback whales in Glacier Bay and Icy Strait, Alaska. *NORTHWESTERN NATURALIST* 94(3):187-197. 2013.

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