Alaska Region Marine Mammal Stranding Network

Spring 2016 Newsletter

NMFS Stranding Hotline
1-877-925-7333

One Call Shopping! Let the Hotline do the Work!

Did you know that when you call our hotline, they will keep calling NMFS Stranding Program Staff until they directly speak with one of us?
Then we can call you back.

NMFS Stranding Program Contacts

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2016 National Marine Animal Health and Stranding Network Conference: *Registration is now full, but abstracts are still being accepted until April 30!*

In this issue:

Greetings from the Coordinator

Changing of the Guard

Right: Aleria Jensen (left) presents a “tools of the trade” crown to Mandy Migura (right), including exam gloves and cryovials. Mandy is assuming the role of Stranding Coordinator for NOAA Fisheries Alaska Region, previously held by Aleria since 2004. Aleria will be maintaining her role as Large Whale Entanglement Coordinator.

Photo courtesy of G. Sheffield

Greetings Alaska Marine Mammal Stranding Network! As outgoing coordinator, I wanted to thank you all again for your efforts over the years to recover, monitor, investigate, and treat stranded marine mammals across our state. We have an incredible team up here and it's been my privilege to work in your company. It's been quite a ride the last decade…our first NMFS Unusual Mortality Event in AK, and then another; killer whales in the Nushagak; pinniped carcasses on the Copper River Delta; Yakutat gray whale; St. Paul fin whale; necropsy of humpback Max on Admiralty; Sapphire Princess humpback necropsy; live stranded belugas; live fur seal left on a doorstep in Aleutians; offshore killer whale necropsy near Petersburg; oh but the list goes on. And on. With the changes now facing the marine ecosystem in our part of the world, our approaches to stranding response and health surveillance will undoubtedly adapt as well. I look forward to seeing how this evolution unfolds, how the AK stranding network continues to grow and strengthen, and to all we have yet to learn. Cheers, Aleria

Photo courtesy of K. Savage

Left: As the tourists watched from the decks above, Aleria and team pulled this humpback whale off the bulbous bow of the Sapphire Princess as it arrived in Juneau and towed it to shore for a necropsy in July of 2010.

Greetings from the Coordinator - continued

Hello Alaska Marine Mammal Stranding Network Members! As I have been transitioning into my new position of Stranding Coordinator and learning about the details of the stranding program, I have already seen the commitment each one of you has agreed to, as well as the passion and dedication you provide to our program. Therefore, I want to start my introduction of myself by first acknowledging how appreciative I am to be inheriting all of you and want to say THANK YOU for everything you do to make our stranding network as successful as it is. Alaska is a big place and we have network members spread to the far reaches of the state. Some of you I already know through my 8+ years with NOAA's Cook Inlet beluga whale program here in Anchorage, and some of you I recently met at the Alaska Marine Science Symposium. For those of you that I have not had the opportunity to yet meet, I want you to know that I do hope to start building a relationship with you too, and have already heard great things about you. I do ask that you please recognize that I may have a slightly different way of doing things, and that you provide me a little bit of patience and understanding while I'm still learning the ropes. And please, do me the kindness of following up with me if I do not respond to you in a timely manner. Again, thank you, and I hope to live up to the high standards you all have already set for our program. -Mandy

Photo courtesy of C. Goertz

Left: After a quick helicopter ride along the coast of Cook Inlet, Mandy and a colleague helped Dr. Carrie Goertz necropsy a dead beluga whale in 2007. This was Mandy's first beluga during her second week on the job, and is now the primary species she manages as the Cook Inlet beluga whale recovery coordinator.

Extending a heartfelt thanks to Aleria and a warm welcome to Mandy!

The PEG Board (Pinniped Entanglement Group)

Introducing the New Alaska Region PEG Coordinator, Kim Raum-Suryan

Kim Raum-Suryan was recently hired as a Marine Mammal Specialist within the Protected Resources Division (PRD). Kim has more than 25 years of research experience studying cetaceans and North Pacific pinnipeds (including Steller Sea lions, harbor seals, California sea lions, and monk seals) in Alaska, British Columbia, Washington, Oregon, California, Hawaii, and Mexico. She was instrumental in developing juvenile Steller sea lion above-water capture techniques, has participated in hundreds of sea lion captures including the innovative chemical immobilization and disentanglement captures, and co-developed the Steller sea lion entanglement data protocols while working for Alaska Department of Fish and Game. Her most recent research has focused on examining distribution and movement patterns, and identifying the causes of and working toward solutions to Steller sea lion entanglements in marine debris and fishing gear.

Photo courtesy of ADF&G

Left: Kim Raum-Suryan (left), Greg Snedgen (middle) and Kate Savage (right) after a successful neck disentanglement.

Right: Kim and Greg work on attaching a satellite tag to track a sea lion following flasher removal..

Photo courtesy of ADF&G

For the past several years Kim has participated in a multiagency/NGO Pinniped Entanglement Group (PEG) and will now take the lead as the PEG coordinator. As the coordinator, Kim will lead quarterly PEG meetings, continue to facilitate ongoing communications within the group and among the partners, formulate initiatives to mitigate pinniped entanglements, coordinate with the Marine Mammal Health and Stranding Response Program regarding protocols, permitting, and new developments, and continue to conduct outreach and education as a means to prevent marine mammal entanglements.

2016 Strandings Snapshot

by Mandy Migura, NMFS

2016 has started with a bang in the stranding program. From January 1 - April 13, we have already had 24 stranding reports, ranging from a fin whale carcass on St. George Island, to an emaciated spotted seal captured in Kotzebue and transported to the Alaska SeaLife Center, to a harbor porpoise requiring euthanasia in Cook Inlet, and an entangled humpback whale in Yakutat. Eleven necropsies have been conducted so far this year.

In 2016, we hope to continue carcass surveys in/around the Cordova area which started last year, and to add a limited number of carcass surveys in/around Kodiak in May and June. These were areas of particular hotspots of mortalities in 2015, so please be extra vigilant if you are in these areas, and help us get the word out about reporting strandings in a timely manner.

DATE NMFS NOTIFIED	SPECIES	INITIAL STATUS	LOCATION
11-Apr	killer whale	dead	Snug Harbor
6-Apr	spotted seal	alive	Kotzebue
4-Apr	unidentified cetacean	dead	St. Paul
4-Apr	humpback whale	alive	Yakutat
3-Apr	CI beluga	dead	Tyonek
1-Apr	harbor porpoise	alive	Anchorage
20-Mar	harbor seal	alive	Juneau
15-Mar	adult female SSL	dead	Ketchikan
17-Mar	pinniped	dead	Dutch Harbor
11-Mar	SSL	alive	Kodiak
6-Mar	unknown cetacean	dead	Ketchikan
25-Feb	Large cetacean	dead	Bering Sea
23-Feb	Small cetacean	dead	Juneau
23-Feb	Harbor porpoise	dead	Gustavus
23-Feb	Dall's porpoise	dead	Juneau
14-Feb	SSL	dead	Tenakee
13-Feb	SSL	dead	Sitka
9-Feb	(probable) gray whale	dead	St. George
2-Feb	harbor or ringed seal	alive	St Paul
2-Feb	fin whale	dead	St. George
2-Feb	SSL	dead	St. George
24-Jan	small cetacean	dead	Hope
12-Jan	harbor porpoise	dead	Haines
5-Jan	SSL	dead	Tenakee

2015 Strandings in Review

by Kate Savage, NMFS

See the full 2015 Strandings Summary Report on our website: https://alaskafisheries.noaa.gov/sites/default/files/15strandings.pdf

NMFS received a total of 342 confirmed reports of marine mammal strandings in 2015. The number of annual reports in Alaska has increased annually since 1985 (Fig. 1), and that positive trend continued in 2015. However, the number of new reports was not extraordinary (Fig. 2), nor did there appear to be a change in the seasonality of reports (Fig. 3).

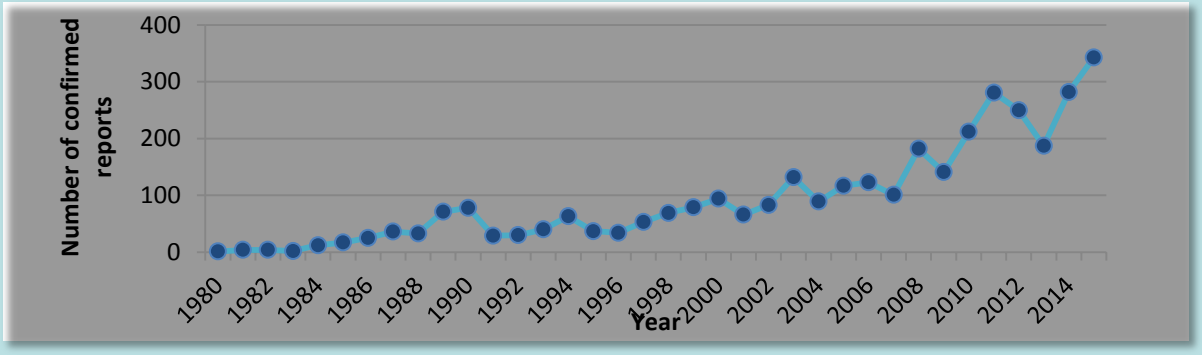


Figure 1. Number of Confirmed Strandings in Alaska by Year

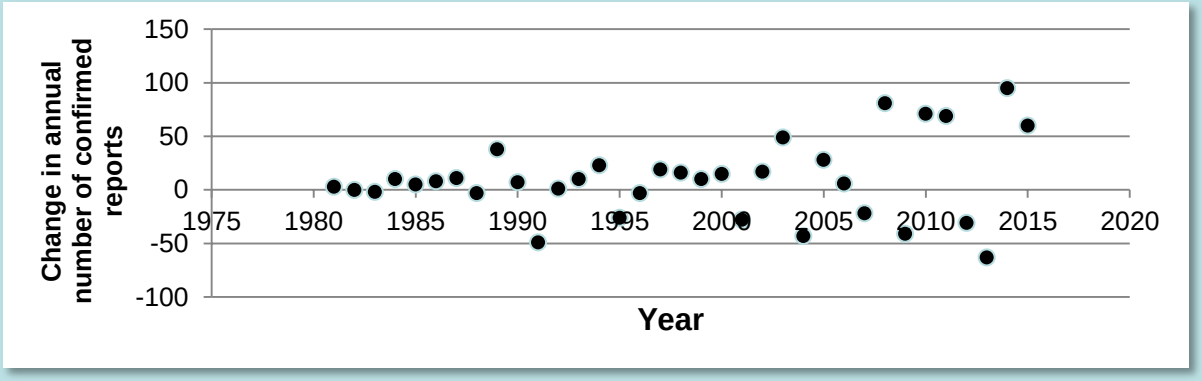


Figure 2. Change in Annual Number of Confirmed Stranding Reports in Alaska, 1980-2015.

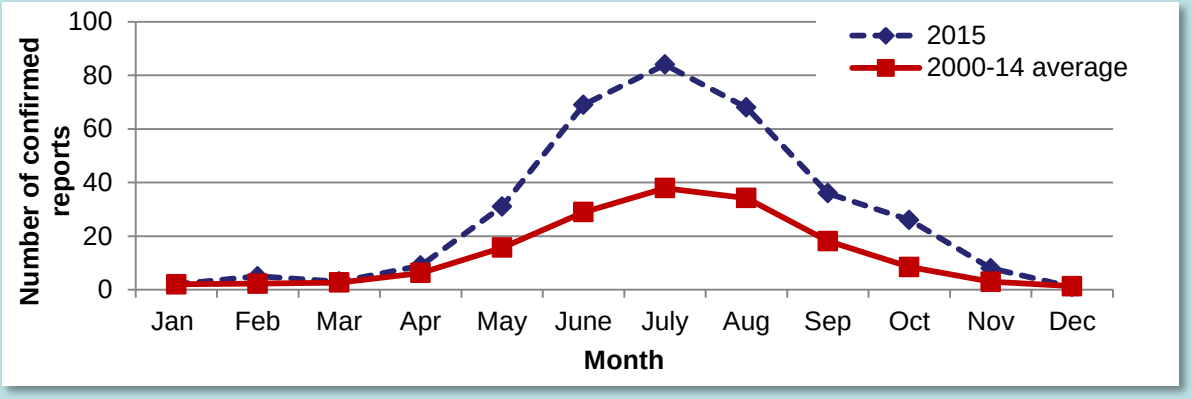


Figure 3. Number of Confirmed Stranding Reports in Alaska by Month

The proportion of pinnipeds to cetaceans in 2015 was also similar to the average of the preceding 15 years , but within species there was variability in the number of reports in 2015 as compared to the 2000-2014 averages (Figs. 4 and 5).

Historically, stranding data has been presented simply as the number of annual reports per species. However, given the increase in the number of stranding reports each year, the number of reports relative to the total for the year may be a more accurate and defensible method of presenting the data.

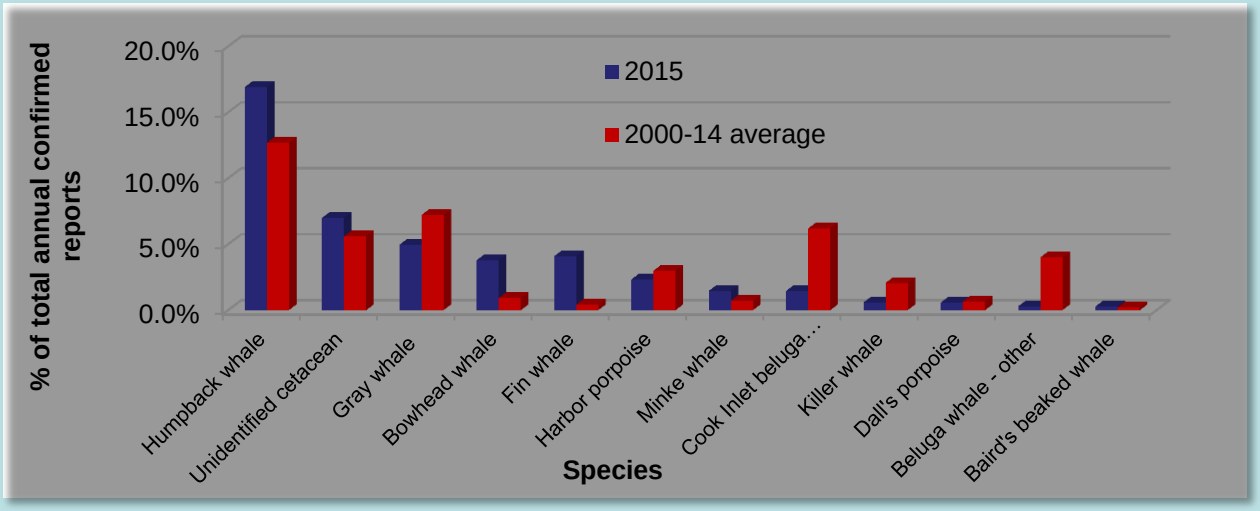


Figure 4. Contribution of cetacean species to total confirmed reports, 2015 compared to the 2000-2014 average in Alaska.

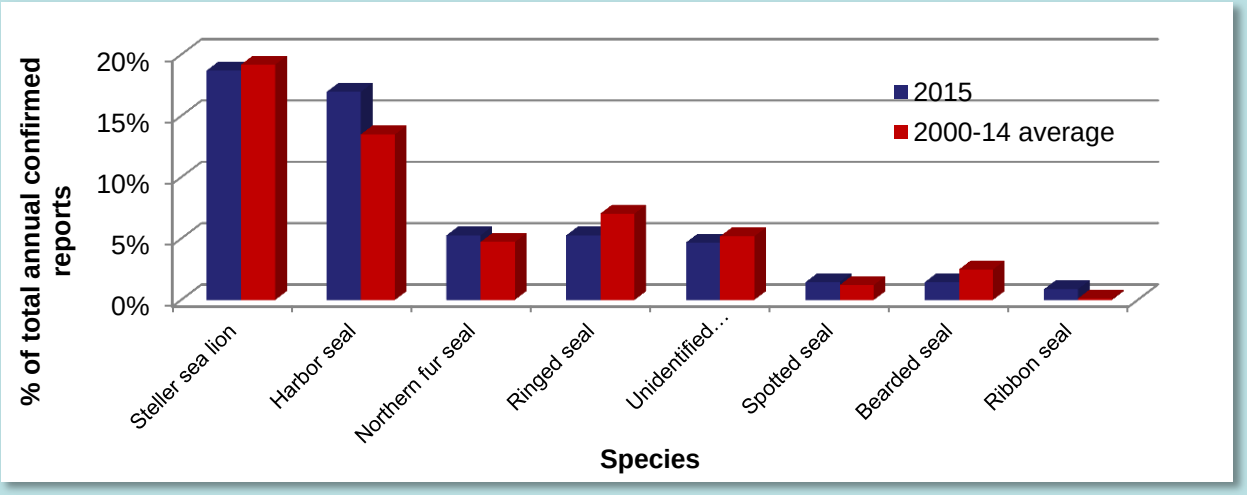


Figure 5. Contribution of pinniped species to total confirmed reports, 2015 compared to the 2000-2014 average in Alaska.

Cetacean Highlights

A number of cetacean species are observed on a sporadic basis, maybe one or two animals a year or every few years. These include Dall's porpoise, minke whale, fin whale and the different beaked whale species. Fin whale numbers increased dramatically in 2015, leading to the declaration of an unusual mortality event (UME, see page 17). Other species, including killer whales and harbor porpoise are typically observed in moderate numbers.

The number of humpback whale strandings increased in 2015, which includes animals from the Gulf of Alaska assessed in the large whale UME (page 17). However, the number of humpback whale strandings relative to total reports in 2015 was within the 15 year historic range (Fig. 6).

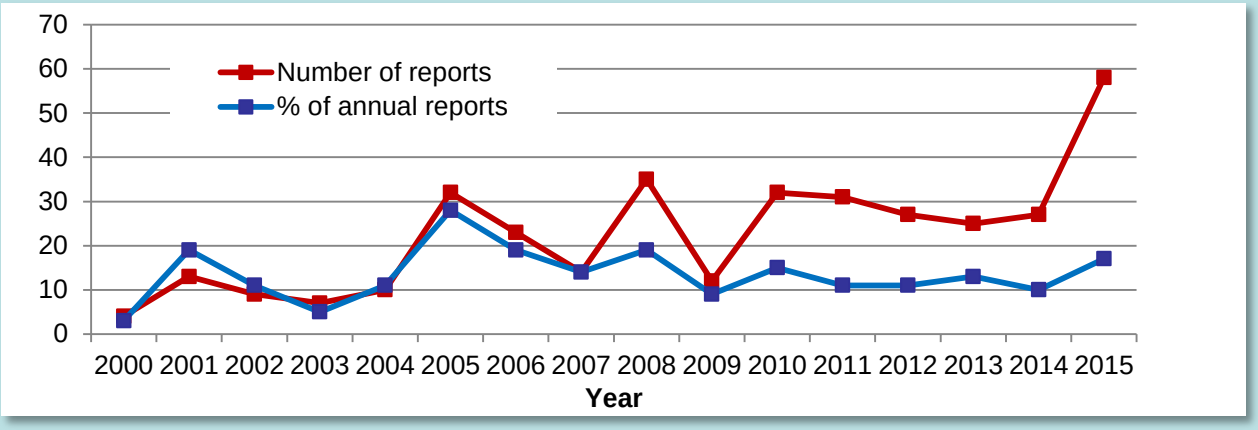


Figure 6. Number of humpback whale strandings and percent relative to total number of annual strandings, 2000 – 2015.

Photo courtesy of M. Good

Left: A young humpback whale chronically entangled with pot gear first sighted on October 20 near Unalaska Island. This photo was taken when the animal was resighted on October 24. A disentanglement effort was planned for October 26, but precluded due to stormy weather. The animal was found dead on October 28 and a necropsy performed by Kathy Burek and Melissa Good. Drowning secondary to the entanglement was the likely cause of death.

The number of bowhead whale strandings also increased in 2015. Most of the bowhead whale stranding reports were received from observers in the ASSAM Project (NOAA aerial survey team) during aerial surveys, so unit effort is likely a factor in the number of whales observed.

2015 Strandings in Review – continued.

Cetacean Highlights cont.

According to Raphaela Stimmelmayr of the North Slope Borough, most of the bowhead floaters reported were not examined. Aside from survey effort, factors for the increased numbers may also include carcass resights and killer whale predation, which also appears to be increasing.

Left: A bowhead calf observed floating east of Point Barrow in October of 2015. The calf was likely preyed upon by killer whales with part of the mandible and tongue missing as well as rake marks on the pectoral fin.

Photo courtesy of S. Oehlers

Left: This Baird's beaked whale was the only beaked whale reported stranded in 2015. It was found near Yakutat's Lost River in January, significantly decomposed and missing part of the lower jaw. Bone samples submitted for genetics identified the animal as a gray form of Baird's.

Photo courtesy of G. Sheffield

Right: Minke whale strandings increased slightly in 2015. Interestingly, scleral tissue from this animal, recovered in early August in Nome, tested positive for domoic acid.

Photo courtesy of S. Wright

Left: Harbor porpoise comprised 2.3% of all reports in 2015, slightly down from the 15 year historic average of 3%. This animal was one of 3 found near the Copper River Delta in early June.

2015 Strandings in Review – continued.

Right: The incidence of killer whales in 2015 was 0.6%, down from a historic average of 2.1%. In the last 15 years, over 80% of killer whale strandings occurred in Southcentral or Western Alaska. In 2015, only 2 killer whales were reported stranded and both were located in Southeast Alaska.

Photo courtesy of R. Jarvill

Pinniped Highlights

Relative to the 15 year historic average, reports of harbor seals and ribbon seals increased in 2015 (Fig. 6). In the case of harbor seals (Fig. 10), the increase cannot be explained by an increase in abandoned/orphaned pups (29% in 2015 vs. 34% in the preceding 15 years) or through human interaction (14% suspected or confirmed cases in 2015 vs. 13% in the preceding 15 years). Six of the cases were associated with aerial surveys over the Copper River Delta in June and July.

Photo courtesy of Donna Robertson Aderhold

Left: A young harbor seal carcass found in September near Homer. The animal had several puncture wounds near the jaw, possibly from a firearm. Another large chunk of skin and underlying tissue was missing near the right flipper, suspected to be a post-mortem sleeper shark bite by an ADF&G shark expert.

There were 3 ribbon seal stranding reports in 2015, which have always been low in number with 1 report in 2007 and 2 in 2011 since 2000. Aside from a dead ribbon seal found beached after the Nome superstorm event in 2011, all ribbon seal reports were of live animals. In 2015, one of the ribbon seals was first reported alive in Adak, grew progressively less responsive, and was later found dead. A necropsy was performed and results are pending.

Photo courtesy of Kimberlee Beckman

2015 Strandings in Review – continued.

Pinniped Highlights cont.

Below: This subadult, male Steller sea lion was first observed on May 5 in Tenakee, emaciated and weak. The animal eventually died and a necropsy performed. Among other abnormalities, there was significant disorganized bone growth along the maxillary and frontal bones and zygomatic arch, likely indicating a neoplastic or infectious process. Results are pending.

Interestingly, Mandy Keogh (ADF&G) measured cortisol levels in serial sections of whisker and found profoundly higher levels in sections closer to the root, which suggests that concentrations in whiskers may be related to the animal's condition.

Photo courtesy of C. Meyer

Photo courtesy of D. Csepp

Below: While there were a number of uncommon northern fur seal reports in 2015, including a juvenile found stranded in Southeast Alaska in January, an animal hit by a car in St Paul and two found dead without apparent cause, the vast majority of northern fur seal reports involved neck entanglements. Entangling materials include items such as gillnet and trawl net, plastic pipe, packing bands, plastic lids, and, in the case below, some sort of carrying strap.

Photos courtesy of L. Taylor-Thomas

2015 Strandings in Review – continued.

Human Interaction

There is a wide variety in species susceptibility to human interaction due to features of life history and geographical overlap. The most common human interactions in stranding reports are entanglements. These include fishery interactions in which marine mammals become entangled in fishery gear, or alternately ingest fishing gear, and also interactions with marine debris. Other human interactions include ship strikes, where vessels collide with animals either foraging or traversing, and gunshot injuries, where harmful interaction is intentional. Note that legal subsistence harvests are not classified as "human interaction", but rather "subsistence"

Message from Mandy:
Network members, the MMHSRP is *considering* requiring the completion of Human Interaction Forms (in addition to the Level A forms) for all large whales, ESA-listed pinnipeds, and Code 1-3 small cetaceans. Before a decision is made, public comments will be solicited (date TBD). If approved, these requirements likely will not go into effect until January 2017. We will let you know more as details become available.

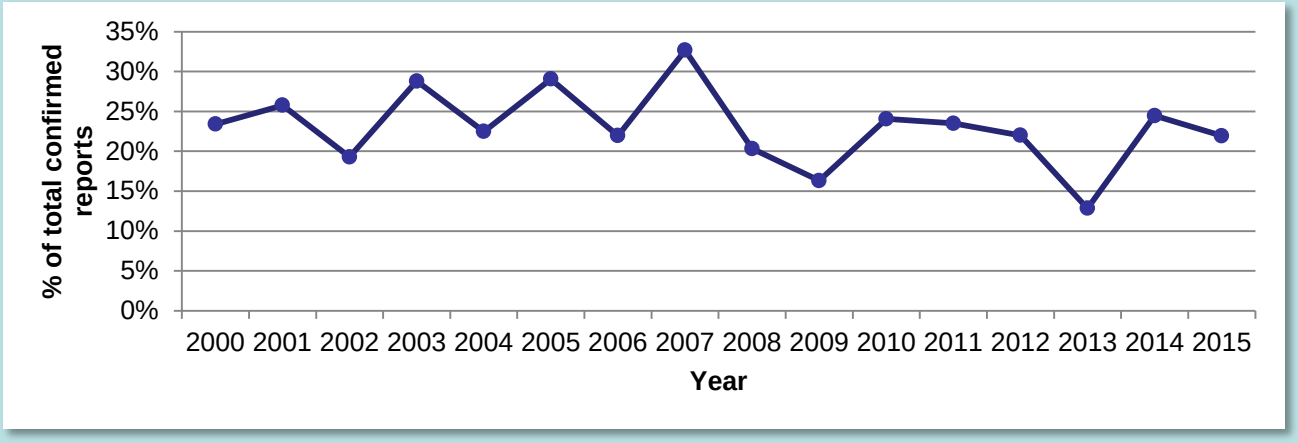


Figure 7. Relative number of stranding reports in Alaska involving suspected or confirmed human interaction, 2000 - 2015

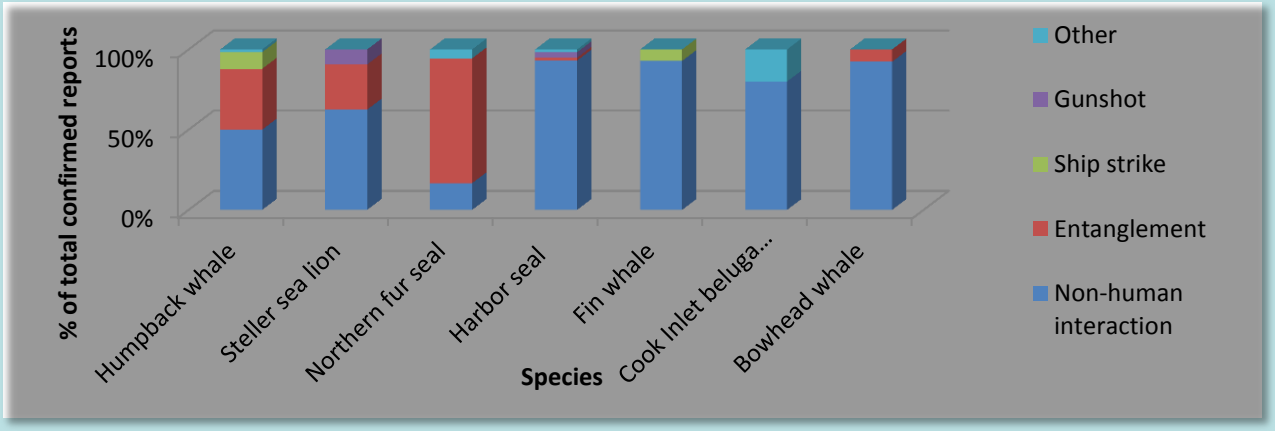


Figure 8. Species susceptibility to forms of human interaction in 2015

Case Study: Cook Inlet Beluga Whales & UAS

by Mandy Migura, NMFS

In 2015, NMFS Alaska Region started expanding stranding response capabilities for live stranded Cook Inlet beluga whales, which are known to strand offshore on mudflats as the tides retreat. Often, these live stranding events occur during tourist season, and it is challenging to get aircraft chartered on such short notice. Hearing of the successes others have had with small unmanned aircraft systems (sUAS), NMFS Alaska Region started the process to pursue permissions and training to obtain our own sUAS. The goal is to use a sUAS to fly short trips to obtain aerial imagery to assess total numbers of belugas involved in a live stranding event, and to document beluga behavior during the event and while the tide returns. Until we can obtain all the necessary trainings and permissions, we have contracted the services of a professional UAS company in Anchorage that has already obtained the non-NMFS legal authorizations and permissions. During any UAS use for Cook Inlet beluga stranding response, NMFS will be onsite to manage and document the harassment component of such operations (in other words: *do not try this at home*!).

In August 2015, we had the opportunity to use a sUAS to obtain imagery from what was reported as a lone beluga stranded in the mudflats of Turnagain Arm. With imagery from the UAS, we learned there was actually a mother-calf pair, and were able to confirm they successfully refloated when the tide returned. Read the full story and view a short video clip on our website: http://www.nmfs.noaa.gov/stories/2015/12/cookinlet_beluga_uas.html

Photo by NMFS AKR

This image captured by the small UAS documents a beluga mom and her calf stranded during low tide in Turnagain Arm, Cook Inlet. In the image you can see that the calf was raising its head to breathe (note the blowhole on the smaller animal), the two animals were facing in opposite directions, and the belugas managed to find or create an area where water would pool (note the drier area at the top of the image). Credit: Alaska Aerial Media, LLC

Photo by Alaska Aerial Media LLC

Case Study: Petersburg Killer Whale

by Sadie Wright, NMFS

On October 15, 2015, a Petersburg-based fisherman reported to a number of people, including the NMFS Stranding Network hotline, that a killer whale carcass had washed up at West Point in Portage Bay, approximately 20 miles northwest of Petersburg. Follow up phone calls determined that the carcass was high on the beach and relatively fresh. Sadie Wright (NMFS Protected Resources), John Moran (NMFS AK Fisheries Science Center), and Bob Marvelle (NMFS Office of Law Enforcement) were able to fly to the carcass on October 16, secure it, and take preliminary morphometrics, skin, blubber, tooth, ectoparasite samples, and photos. The photos of her saddle patch were used to identify this as an offshore animal initially assigned a number in 1992 as an adult.

John Moran and Bob Marvelle photo document the killer whale in Portage Bay on October 16, 2015.

The team working on the October 19 necropsy (photo by Chris Pearson).

The weather on October 19 allowed Ward Air to bring Martha Delaney (University of Washington), Karisa Tang (Vancouver Aquarium), Heidi Pearson (University of Alaska Southeast) and Chris Pearson (volunteer), and Sadie that morning. Don Holmes and Scott Roberge with the Petersburg Marine Mammal Center had arrived via skiff earlier in the morning, and National Geographic photographer Paul Nicklen had arrived via helicopter. Paul spent the first hour taking photos and video of the necropsy from the air and ground before joining the rest of the team.

The team was able to progress through most of the killer whale necropsy protocols, including collection of the dorsal fin, lower jaw, and multiple samples from most organs and external tissues. A number of *Pennella balaenopterae* (the largest member of parasitic Copepod) embedded in the blubber and skin of the killer whale were collected. The conclusions reached from the necropsy were that death was likely multifactorial, culminating from severe chronic periodontal disease, lack of nutrition and energy, and subsequent emaciation. Of note, the cardiovascular disease and associated arterial thrombus potentially contributed to the ultimate death of the animal (i.e., cerebral vascular event). All other noted observations are either age-related or considered within normal limits for a free-ranging, offshore orca.

Alaska SeaLife Center – 2015 Stranding and Rehabilitation

by Halley Werner, ASLC

The Alaska SeaLife Center's harbor seal season ended in October, with the release of 6 rehabilitated pups. Though just 6 were releasable, we had a record high number of harbor seal cases throughout 2015. ASLC responded to 25 harbor seals, many of them in grave condition. Thanks to those of you in the network that helped to facilitate rescues, transports and releases of the seals and sea otters that found their way to ASLC last year! We couldn't do our job without your support.

Photo: NMFS

Left: "Heli" on a public beach July 20 in Juneau.

Right: "Heli" during rehab at the ASLC

Photo: ASLC

Photo: ASLC

Left: "Heli'"s release in Juneau in September.

Right: "Heli'"s path as of Feb.19, 2016.

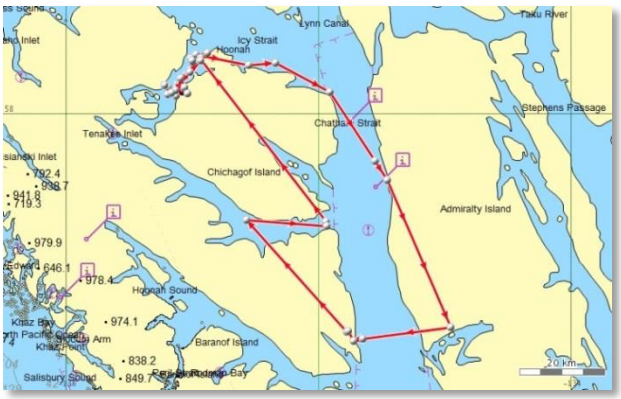


Photo: ASLC

Our record-setting stranding season continued with a wave of dead and dying sea otters in the Homer area. September through November the ASLC's 24-hour hotline was slammed with reports of almost 200 individual animals. Our volunteers in Homer stepped up to the challenge, earning ASLC's Planet Blue Partner Award for their exceptional level of dedication to the Alaska SeaLife Center and our mission. In addition, visiting veterinarians from Point Defiance Zoo & Aquarium and Shedd Aquarium were able to come to Alaska at a moment's notice to help facilitate samplings and euthanasia's of the many moribund and deceased animals.

Alaska SeaLife Center – continued.

Our volunteers in Homer stepped up to the challenge, earning ASLC's Planet Blue Partner Award for their exceptional level of dedication to the Alaska SeaLife Center and our mission. In addition, visiting veterinarians from Point Defiance Zoo & Aquarium and Shedd Aquarium were able to come to Alaska at a moment's notice to help facilitate samplings and euthanasia's of the many moribund and deceased animals.

ASLC's stranding staff was also impacted by the widespread Common Murre die-off, treating and releasing over 100 murres in the Seward area over the winter.

Photo: ASLC

"Kesuk," the otter pup hanging on to his moribund mother in Homer.

Two seals from last year remain at ASLC, Pimniq (PH1502) and Kunik (PL1501). They are being transitioned into a research program which is a collaborative effort with Long Marine Lab.

It's that time of year again for HAZWOPER Refreshers! For those of you Alaska residents, we are happy to share that your costs for this year's refresher will be covered by a Conoco Philips grant and an E-mail will be coming to you soon with more information. For those of you wishing to renew that live out of state, the price of the course, the materials and the wallet card is $75.00/person. It is important to note that without further funding, all participants wishing renew their certification will be responsible to pay next year, including Alaska residents. Remember, it is imperative to keep your HAZWOPER certification up to date in order to be able to respond in the event of an oil spill. Additionally, having everyone's information in a centralized database will make it easier to identify and mobilize the right people when needed. Thanks to the hard work of the ASLC HAZWOPER team, we had 68 new HAZWOPER certifications in 2016 giving us a total of 133 certified with 73 of them from Alaska. This is great news for our response network and we are excited to keep the numbers growing.

To help us build these numbers and to continue to grow and strengthen our response efforts, we have two grant proposals in the pipeline. The funding from these grants will hopefully allow us to have in-person Alaska stranding meetings over the next three years! These in-person meetings will allow us to continue to put our expertise together to make our network the strongest ever.

Announcements, Updates and FYIs

Ringed Seal UME Update

- Raphaela Stimmelmayr and Gay Sheffield

Left: A Working Group on Marine Mammal Unusual Mortality (WGMMUME) 1-day workshop was convened on 30 January, 2016. Participants included Stephen Raverty, Raphaela Stimmelmayr, Kathy Burek Huntington, Gay Sheffield, Michael Ziccardi, Ole Nielsen, Aleria Jensen, Mandy Migura, Carrie Goertz, Colleen Reichmuth, Teri Rowles, and Deb Fauquier. The purpose of the meeting was to review case material and draft UME-related working documents for WGMMUME review (i.e. case definition; tier II plan, closure request form etc.).

A comprehensive trans-boundary spatial temporal summary of cases (2011-2015) was presented and the group reviewed the external presentation of the disease in the four affected ice-associated seal species to highlight clinical differences by species and timing (2011 vs >2011), as well as the evolution of the syndrome during 2011-2015 (Stimmelmayr and Sheffield).

Right: A spotted seal harvested in October, 2015. Note the extensive hair loss, presence of old coat and robust body condition.

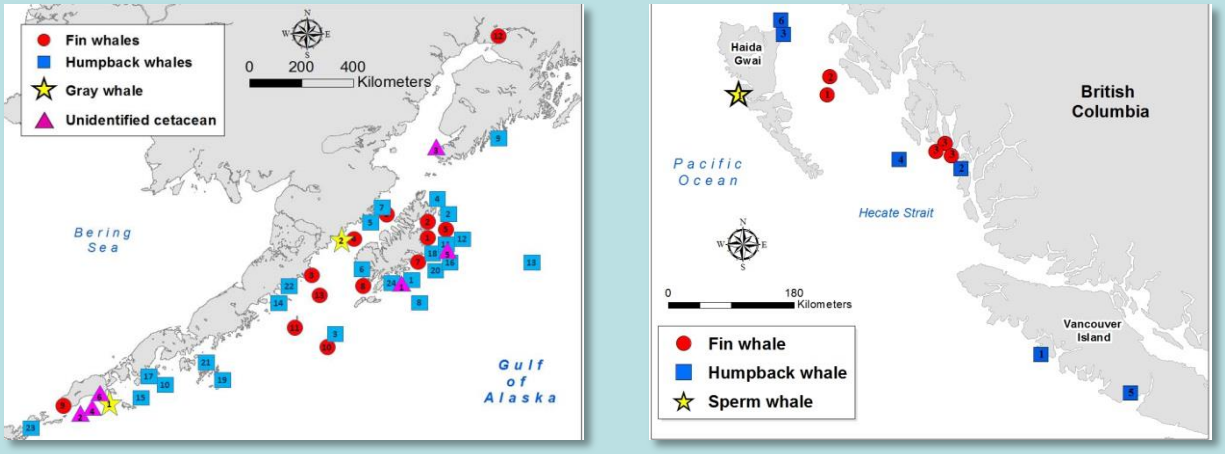
Photo courtesy K. Kokeok.

During the fall 2015 the seasonal spike in public reports of harvested seals from the Bering Strait with delayed molting and hair loss issues underlines the ongoing economic and food security importance of this still undetermined disease for the subsistence communities. An action plan for completion of the closure request was developed and tasks were assigned. A comprehensive review of the case material is being summarized by the onsite coordinator (Dr. Raphaela Stimmelmayr, NSB DWM) and Gay Sheffield (UAF- ASG) in the upcoming months. Dr. Burek will lead the effort to summarize all data on necropsied case material. NOAA offsite coordinator Aleria Jensen and Mandy Migura will compile AK stranding related data outside the Arctic/Western Arctic Region. A completed closure request will be submitted to the WGMMUME in June.

Gulf of Alaska Large Whale UME Update

- Kate Savage

Between May 22 and June 17 of 2015, 12 dead fin whales were reported near Kodiak Island and in the western Gulf of Alaska (GoA). The number of animals was unprecedented; over the previous 15 years an average of less than one stranded fin whale had been reported throughout the entire Alaskan region. Through the summer, coastal British Columbia (BC) also experienced an unusual intensity of large whale strandings, including 2 fin whales, 5 humpback whales and 1 sperm whale. Consequently, in August of 2015, a large whale UME was declared and an investigative team established.



Above: The location and order of large whale UME strandings by species in AK and BC.

Findings:

- By the end of 2015, 45 animals were being examined as UME candidates in Alaska (13 fin whales, 24 humpback whales, 2 gray whales and 6 unidentified cetaceans) and 12 animals in BC (5 fin whales, 6 humpback whales and 1 sperm whale).
- Most of the AK carcasses were inaccessible for necropsy. Aqueous humor of a Code 3-4 fin whale carcass was negative for domoic acid, saxitoxin and Cs-137. In BC, 8 of the animals were necropsied. Four had evidence of biotoxin exposure.
- In Alaska, a temporal and spatial pattern in fin whale mortality appeared to indicate the possibility of a discreet occurrence which was not evident in other species.
- The event was likely part of a larger, climate-driven process affecting a range of species. In January 2016, a workshop was convened to share information and foster collaboration concerning physical and biological anomalies that occurred throughout the GoA in 2015.

Announcements, Updates and FYIs - continued

- Proactive approach in 2016: If a similar event occurs this year, the UME core team recognizes that rapid response is vital. To that effect, PSAs have been sent out to various GoA communities to ensure timely and widespread reporting. Necropsy personnel, protocols and financing are also in place.

Above: Fin whale near Alitak .Photo courtesy of C. Edson.

Summary of GoA 2015 Anomalies Workshop, AMSS, Jan. 25

Changes in oceanographic/climatic conditions:

- "The Blob"– changing centers of surface heat anomalies in the North Pacific and the Bering Sea
- 2015/16 El Nino among the strongest
- Decreasing ice extent in the Bering Sea
- AK second warmest year since record keeping began in 1925
- Deep heat: 200 m or more below the surface

Changes in biological conditions throughout food web:

- The Blob may be an offshore incubator for toxic cells. Increase in number of phytoplankton species associated with toxicity, e.g. pseudo-nitzchia, as well as increase in phytoplankton growth rate. More warm-water zooplankton species in 2014 and 2015
- Increased algal toxins in shellfish
- Lots of spatial and temporal changes in fish distribution as well as condition and density of fish species
- Seabird die-offs – mainly murres – largest geographic extent recorded in Alaska. Consistent finding is emaciation and starvation. Continuing. HAB effects?
- Northern sea otter mortalities – mainly in lower Cook Inlet. Mimics 2006-2010 UME except higher mortality and occurring later in the year, some with same cardiac symptoms, some with atypical symptoms. Biotoxins do not appear to be the primary cause.

Announcements, Updates and FYIs - continued

2016 National Marine Animal Health and Standing Network Conference website:

The conference will feature a variety of topics on marine animal health, stranding and entanglement response, habitat issues as well as a large scale emergency response drill. Please visit the stranding conference website below for more details on the conference including abstract submission, the draft agenda, travel information, and more.

http://www.nmfs.noaa.gov/pr/health/Stranding%20Conference/2016%20conf.html

Marine Mammal HealthMAP update

As of October 2015, the project was being developed for the Gulf of Mexico. Basic data parameters were being finalized for the database, and beta testing of the platform employed. In February 2016 the Steering Committee met to prioritize next steps and clarify an action plan for Core Team members as the HealthMAP expands.

Molly Kemp, Chichigov Conservation Council SN member, took this photo of Steller sea lions closely watching cruising killer whales at a haulout near Tenakee in January, 2016.

THANK YOU in advance for your hard work during the upcoming stranding season. Many calls come in to NMFS from all over the state, demonstrating a true team effort to respond to stranded animals in Alaska. Thank you for your help! A reminder to please submit any level As, photos, and necropsy reports within 30 days to: **Kate.Savage@noaa.gov**
Your reports allow us to track marine mammal health in Alaska and beyond.