

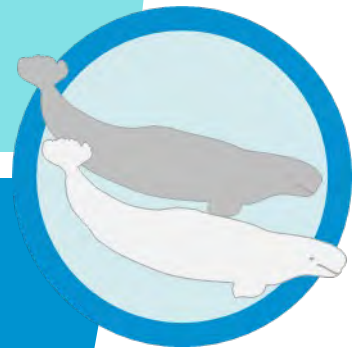
Alaska Marine Mammal Stranding Newsletter

Winter 2022



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Reminder:

The current Examiner Guide, Level A, and Human Interaction forms can be found [here](#)

24-hour stranding hotline:
1-877-925-7773



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Alaska Region

Winter 2022 AMMSN Newsletter



**NOAA
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By
Mandy Keogh

Winter 2022 Newsletter

Greetings from the Stranding Coordinator

As of December 12, 2022 there have been 254 stranded marine mammals reported in Alaska and we will be finalizing these reports in the month ahead. The two Unusual Mortality Events (UME: [gray whale](#) and [ice seal](#)) remain open with fewer reports of strandings for both events. We expect the ice seal UME closure package to be submitted in early 2023 and we are eager to hear the results of the body condition assessments and number of stranded gray whales on their breeding grounds in Mexico in the coming months.

As we wrap up 2022, we expect to receive fewer reports of stranded or distressed marine mammals but you never know what might come ashore. We are also looking forward to our return to an in person event for the 2023 AKR Stranding Network Meeting, which will be held in conjunction with the Alaska Marine Science Symposium Meeting (see pg. 3 for more information). We are still working out the logistics, but we expect be able to have participants join virtually and we will be sending out those details as they are finalized. Please feel free to reach out to me (mandy.Keogh@noaa.gov) for more information on the meeting or if you are interested in attending virtually, so I can be sure you receive the meeting link once finalized.

A big thank you to everyone for all your reports, efforts, and stranding responses in 2022!



This year, NOAA Alaska Region Protected Resources Division presented Barbara Mahoney with a NOAA Special Act Award. This award was in recognition of Barbara's extensive (25+ years) and ongoing support of Cook Inlet beluga whale stranding responses.

Alaska Veterinary Pathology Services

AVPS is looking for **FRESH entire, intact, marine mammal carcasses** from SW/Western Alaska including the Aleutian Islands to examine for the **ECO HAB: Trophic Transfer and Impacts of Harmful Algal Toxins in Arctic and Subarctic Food Webs project**.

This can be any marine mammal including sea otters and walrus. AVPS can provide funds for supplies and shipment. If you come across a carcass, please contact Natalie at avps.natalie.rouse@avps.com or 402-499-9515 **to get permit approvals** and arrange transfer. Thank you!





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National Marine Fisheries Service

Alaska Region

Alaska Marine Mammal Stranding Network

2023 In Person and Virtual Meeting

Monday, January 23, 8 a.m. – Noon

Dena'ina Convention Center • Kahtnu 2 Room



For more information contact: Mandy.Keogh@noaa.gov

A Whale's Tale from Up North

'Twas the weeks before Christmas, and through the snow-covered town
Not a creature was stirring, everyone hunkered down.

The dissection tools were all stored with care
In hopes for next year's stranding affairs

At home on a Sunday in my NSB cap
I'd just settled down for a long weekend's nap.

When suddenly on my iPhone a text message appeared
"Large Whale at the Dry Cleaners -it may disappear!"

I reached for my camera and grabbed my beach survey stash
And away to the beach I flew like a flash

The moon on the crest of the new-fallen snow,
Gave a lustre of midday to objects below,

When what to my wondering eyes did appear,
Was a giant fin whale! How did it get here?!

This large fin whale was dead, of that we had no doubt.
Bobbing in the water, half in and half out.

Together with my crew, we measured, clipped, and cut
Even bits of this whale could tell us a lot

Blubber and muscle and measurements, too
We collected our samples. We knew what to do.



2022263, fin whale

By
R. Stimmelmayer
North Slope Borough



Heavy equipment used to push the whale off the beach.

Learn more about fin whales [here](#)

As we gathered our samples, the whale was partially afloat
The wind biting fiercely, I was glad for my coat!

We took photo after photo, and inspected its jaw
which looked like it had been hit by some vessel afar.

“Now, KAYLA! now, BOBBY! now, RITA and JOHN C! (“We have such a great crew today!” thought Raffi!)“To the top of the fluke in the middle of this squall! Now sample away! Sample away! Sample away all!”

We hoped that the samples would help tell Fin’s story
So we took them straight to the ARF laboratory.

Back at the lab, we pondered Fin’s fate
We couldn’t land it on the beach, it was far too late

And given its size and being right in town
We knew that polar bears would be coming around.

We needed to move Fin before he froze on the beach
And back in the water he’d be out of reach

The very next morning among moon light aglow
A lonely loader arrived with its big hoe.

As the giant was gently pushed away from our beach
We thanked Fin for sharing what he could teach.

We watched this great whale float gently out of sight.
“Happy Christmas to all, and to all a good night!”

Happy Holidays to all and everyone from your Most Northern Stranding Team!

Raphaella, Rita, Kayla, Bobby, John, and Billy

PS: Community members reported a large whale initially identified as a humpback whale beached at Dry Cleaners (GPS: 71 17’ 21” N ; 156 47’60” W). Based on fluke shape and characteristics “ebony and ivory” coloration of the jaw (diagnostic for fin whales Kate Stafford pers. commun.) the beached whale was confirmed as a male fin whale 57’ 6”. Two site visits were conducted.

This is the most northern fin whale stranding in Alaska.



Table 1. Summary of the 37 confirmed stranding reports of fin whales in Alaska between 2000 and 2021.

NMFS ID	Date of initial observation	Condition	Human Interaction	Location
2022263	Nov 20, 2022	Moderate decomposition, beached	Suspect vessel strike	Chukchi Sea
2022127	July 14, 2022	Advanced decomposition, floating		Kotzebue Sound
2021003	Jan 31, 2021	Advanced decomposition, beached		Middleton Island
2021155	Aug 6, 2021	advanced decomposition, beached		Katmai
2021187	Aug 17, 2021	moderate decomposition, beached		Point Hope
2020055	June 15, 2020	advanced decomposition, beached		McLean Arm, Clarence Strait
2020065	June 19, 2020	fresh dead, floating		Izembek Lagoon
2020127	July 18, 2020	advanced decomposition, floating		Gulf of Alaska
2020141	July 20, 2020	advanced decomposition, beached		Kodiak, Tugidak Island
2020181	Aug 21, 2021	fresh dead	Suspect vessel strike	Unalaska
2018080	June 20, 2018	Alive	vessel strike	Kodiak, Marmot Bay
2017130	July 25, 2017	Alive, beached		Snow Passage
2016005	Feb 2, 2016	moderate decomposition, beached		St. George
2016053	May 29, 2016	fresh dead	vessel strike	Seward
2016076	June 21, 2016	Alive, beached		Upper Cook Inlet, Knik Arm
2015003	Feb 21, 2015	moderate decomposition, beached		St. Paul Island
2015033	May 23, 2015	dead, condition unknown, floating		Kodiak
2015038	May 22, 2015	fresh dead, floating		Marmot Bay
2015055	May 30, 2015	moderate decomposition, floating		Shelikof Strait
2015056	June 2, 2015	moderate decomposition, floating		Chiniak
2015057	June 1, 2015	moderate decomposition, floating		Port Wrangell
2015058	June 7, 2015	fresh dead, floating		Kodiak, Cape Raspberry
2015061	June 1, 2015	dead, condition unknown, floating		Unimak Pass
2015065	June 6, 2015	advanced decomposition, floating		Chirikof Island
2015067	June 11, 2015	advanced decomposition, floating		Chowiet island
2015077	June 2, 2015	moderate decomposition, floating		Sacramento Valley
2015078	June 12, 2015	advanced decomposition, beached		Alitak
2015281	Sept 28, 2015	moderate decomposition	vessel strike	Upper Cook Inlet
2015299	June 17, 2015	dead, condition unknown		Shelikof
2014093	July 13, 2014	fresh dead	vessel strike	Dutch Harbor
2014179	Sept 27, 2014	moderate decomposition, beached		St. Paul Island
2013006	Mar 1, 2013	fresh dead, beached		Kodiak
2010170	Aug 29, 2010	fresh dead	vessel strike	Kodiak
2009022	June 1, 2009	fresh dead	vessel strike	PWS, Valdez
2006140	Aug 19, 2006	fresh dead	vessel strike	Resurrection Bay
2003021	May 28, 2003	advanced decomposition, beached		Cape Douglas
2003138	July 28, 2003	moderate decomposition, beached		Chiniak Bay



Photo: Milton Levin, PhD
NOAA Permit 71670

By
Wendy Puryear
Cummings School of
Veterinary Medicine
Tufts University

Influenza A Virus (IAV) is a zoonotic pathogen with many different subtypes that are known to circulate in wild birds, primarily waterfowl and seabirds. The vast majority of variants are known as Low Pathogenicity Avian Influenza (LPAI) and are generally associated with little to no disease in the natural host. A small subset of variants are defined as High Pathogenicity Avian Influenza (HPAI), defined by the ability to cause high morbidity and mortality in poultry. HPAI variants also tend to be of higher concern for spillover to other hosts, including humans, and are closely monitored for pandemic potential.

LPAI has been observed in marine mammals for over 50 years and has been previously associated with unusual mortality events (UMEs) dating back to the late 1970s. The most recent UME associated with LPAI occurred in the North Sea in 2014/15 and was attributed to the influenza subtype H10N7. In all cases documented to date, influenza observed in marine mammals has traced back to waterfowl and seabirds. However once in marine mammals, past outbreaks such as that associated with H10N7, have demonstrated the ability of the virus to transmit within seal species, most notably in harbor seals. In addition, longitudinal active captures for health assessments of gray seals in the Gulf of Maine have demonstrated that influenza can circulate in a marine mammal population even outside of a mortality event. Although to date there have been few observations of influenza in marine mammals in Alaska, collaborative efforts between the Runstadler lab at Tufts University, NOAA's Alaska Regional Office, Alaska SeaLife Center (ASLC), and Alaska Veterinary Pathology Services (AVPS) recovered a novel influenza isolate of an H3N6 subtype from a harbor seal from Ketchikan, AK (NMFS# 2021188; PV2114). This virus is undergoing further study, but demonstrates the continued ability for influenza to move from birds to marine mammals.

Over the past year, we have been experiencing the largest, most extensive outbreak of HPAI documented to date. This virus has wreaked havoc on raptors and seabirds around the Northern hemisphere, with tens of thousands of bird mortalities in multiple species such as gannets, great skua, and terns, and mortalities recently extending into the southern hemisphere with an estimated mortality of over 13,000 pelicans in Peru.

The current variant of HPAI is an H5N1 Influenza A virus that has its origins in domestic poultry in Guangdong China in 1996. It wasn't until 2005 that the virus was first detected in waterfowl, and then 2014 before it began to rapidly spread through migratory wild aquatic birds. The virus caused an outbreak in North America in 2014/15 that had a substantial impact on commercial poultry, but was largely absent in wild birds and not observed in North America again after the initial outbreak.



2021188 (PV2114) stranded with facial injuries and died during transport. Tufts University isolated AI (H3N6) from samples collected during necropsy collected by Alaska SeaLife Center and Alaska Veterinary Pathology Services.



HPAI H5N1 continued to circulate in Europe and underwent additional changes to become the current variant of HPAI that made its debut into North America in late 2021, rapidly disseminating across the continent and from [Florida to Alaska](#) . Only a few short months after the incursion into North America, the first observations of spillover of HPAI into wild mammals were observed when red fox were confirmed to have HPAI. The spillover from avian to mammalian hosts has included numerous wild mammalian species and in Alaska, has been confirmed in at least two red fox and an [American black bear](#). The current variant of HPAI has also been observed in a small number of cetaceans, including a bottlenose dolphin from Florida, a porpoise in Sweden, and a white-sided dolphin in Quebec.



Photo: Milton Levin
NOAA Permit 71670

As HPAI began to make its way through seabirds in the northwest Atlantic, it spilled over into at least two species of pinniped that share habitat with the gulls, terns, and eiders that were undergoing high levels of infection throughout the summer months. In late June of 2022, the response team at [Marine Mammals of Maine \(MMoME\)](#) began to note a small but noticeable uptick in the number of stranded seals within the region. Many of the stranded animals were juveniles and bird mortalities were being observed in the same regions. Lynda Doughty, the director of MMoME, reached out to the Runstadler lab at the [Cummings School of Veterinary Medicine at Tufts University](#), where there has been a long standing collaboration with the stranding networks for assessing viral disease in marine mammals on both the Atlantic and Pacific coasts.

The team at MMoME collected swab samples for testing by the Runstadler lab, who was able to rapidly detect the presence of HPAI, subsequently confirm detection through the National Veterinary Services Laboratory (NVSL), and rule out the presence of morbillivirus. The first case of HPAI was detected in a harbor seal on June 21st, and the first case of HPAI was detected in a gray seal on July 1st. The outbreak was declared an [Unusual Mortality Event](#) retroactive to June 1st. The increase in strandings spiked in July, with the last HPAI confirmed case on July 15th. Throughout June and July, HPAI was confirmed in 17 harbor seals and 2 gray seals, with viral isolates and genetic sequence successfully obtained from the majority of cases. These viral sequences provided an important opportunity to work toward a better understanding of the transmission dynamics of HPAI between and within birds and seals. Further data is needed to determine if the virus transmitted between seals. With the data available to date, there appear to have been [at least two spillover events of HPAI from birds to seals within Maine](#). In addition, there was a concurrent outbreak of HPAI in the St. Lawrence Estuary in Quebec, though details on viral sequence and possible transmission routes are still pending.





Photo: Wendy Puryear
NOAA Permit 71670

The current HPAI outbreak is unique in the wildlife species diversity that it's impacting and the range of wild mammals that it is being detected in. While HPAI is being detected in a breadth of mammalian species, the outbreak in seals is particularly notable based on the number of impacted animals within a region, and that unlike the other impacted mammalian species, it is unlikely that the seal outbreak derives from a predation of infected prey.

As we move into the winter months, pinnipeds within the Northwest Atlantic will be closely monitored as the gray seal pupping season gets underway and as harp seals move into the lower latitudes. In addition to monitoring for active infection, serum samples will be screened wherever possible in order to look for evidence of exposure within the populations. As HPAI continues to maintain a strong presence in avian reservoirs, marine mammals will continue to be closely monitored throughout the coming spring migration. Given the global spread of HPAI and the continued diversity of birds with high levels of mortality, it will be particularly important to also keep a watchful eye on marine mammals around the globe, both cetaceans and pinnipeds, and with particular focus on regions of heavy overlap between marine mammal and avian species.



Photo: Yvonne Vaillancourt
NOAA Permit 71670

Finding success in failure



My name is Chelsea Kovalcsik and I am currently a Masters student at the University of Alaska Fairbanks. For my graduate thesis I am researching the presence of harmful algal bloom toxins, saxitoxin and pseudo-nitzschia, in northern fur seals on St. Paul Island. I have been working for the Aleut Community of St. Paul Island's Ecosystem Conservation Office since June 2021 as their entanglement observer and field harvest technician. I get the incredible opportunity to spend my summers out on St. Paul collecting samples for grad school and helping to disentangle seals. I've worked with Tribes in Alaska for five years and have loved every minute of it! I recently spent a year in Namibia, Africa working as the marine mammal stranding coordinator for the Namibian Dolphin Project, where I helped respond to dozens of strandings along the coast. I am passionate about marine biology and marine mammal strandings and I look forward to connecting with more people as my experience grows!

By
Chelsea Kovalcsik
Ecosystem Conservation Office
Aleut Community of St. Paul

I've been hesitant to share some of my fur seal disentanglement work out here on St. Paul Island - partially because it's gruesome and heartbreaking and partially because this work is intimately connected to the community in which I am living and which I have immense respect for.

I've always strived to be transparent with my work as a researcher while being deeply protective and considerate of the people, animals, and places my work spans. I do think it is important though to reflect on one of the wildest and most rewarding summers of my life. What started off as a pipe dream to get my masters has now turned into a full-blown passion project. Marine mammal marine debris entanglement rates are at an all-time high around the world. From even the most remote beaches in the Bering Sea to the long coastlines of Namibia, I've seen firsthand the devastating effects of plastic pollution. I'm grateful for this opportunity here on St. Paul Island. I'm grateful for a team of people dedicated to saving seals and other marine mammals. I'm grateful for a global community of people working tirelessly to end our ever-mounting marine debris issues.

Warning:
Some of these images are graphic
NMFS permit # 23896





My goal this summer was for our team to disentangle 10 fur seals. We ended the season with 44 fur seals disentangled! A number we're proud to have reached but devastated knowing there are this many to disentangle. The entanglements we encountered this summer spanned from moderate to severe – with some of the worst being deep lacerations to the neck area causing considerable, potentially life threatening damage to the animal. We most frequently cut off packing bands and trawl nets, but we also found rope, rubber bands, a shoelace, and thick paper towels wrapped around the fur seals. We disentangled 4 pups and 40 subadults. With the goal of minimizing risk and exposure to the animal, we did not sex any of the seals. To further reduce potential disturbance, we did try sheering each animal so they would not be mistaken as an entanglement and recaptured this season.

Learn more ECO [here](#)

While this summer felt like a massive success for our small team, we all must do better. I don't have the single answer to the marine debris crisis, there are many. Do your part. Educate yourself. Ask the questions. And above all, care about something that can never repay you. Reciprocity isn't always tangible. Sometimes it's the first deep breath of a seal that has struggled for far too long.

All seal disentanglement work was done under NMFS permit # 23896 and was done by trained professionals. NEVER harm or harass marine mammals.

If you see an entangled animal, call your local marine mammal stranding hotline or 1-877-925-7773.

They can either help or direct you on who to call!



Warning:
Some of these images are
graphic

All activities and photos
under NMFS permit # 23896





While the spring stranding season started off strong with multiple elephant seals right here in Seward, the Alaska SeaLife Center did not see our first summer pinniped patient until much later than usual. It may have been a slower pinniped season for ASLC, but the cases were anything but dull.

On June 2nd, our 24-hour stranding hotline received a call from a good Samaritan about an emaciated harbor seal pup on the beach of a popular fishing area near Kasilof. While we were on the phone with the caller, a second harbor seal pup washed ashore nearby. This second pup had a very fleshy, plump umbilicus indicating it was probably born just that morning! The caller monitored the area and did not see any adult harbor seals. With constant levels of high traffic on the beach that time of year, this pup was almost certainly abandoned. The chances of his mother returning were slim to none, and the likelihood of human interaction was extremely high. With NMFS permission, both harbor seals were transported to ASLC for care.

By
Halley Werner
Savannah Costner
Animal Care Specialists

Photos: Alaska SeaLife Center,
NOAA permit #18786



At only one day of age, Admiral's underweight and dehydrated condition is apparent.



X-rays reveal young Cobalt's stomach full of rocks.

On her admit exam, the emaciated seal - later named Cobalt - was found to be dehydrated, hypoglycemic, and hypothermic. Her heart rate was low, and she became increasingly less responsive. Emergency medical intervention was required in order to save her life. Once she became stable enough for a full vet exam, x-rays revealed she had many small rocks in her stomach. While rocks in the stomach aren't uncommon for some adult pinnipeds, it is unusual and dangerous to find them ingested by a seal of her age. Though the rocks needed to come out, she was not stable enough to undergo any procedures at that time.

As our staff focused on stabilizing her with hydration and encouraging healthy weight gain, she surprised us all by passing the rocks naturally - no procedures needed! Once the rocks were out of the picture, Cobalt's health improved drastically. She quickly transitioned from being tube fed formula to eating fish on her own. She even caught live fish immediately once they were offered to her!



Cobalt catching her first live fish right in front of the camera!

The seal pup with a fleshy umbilicus, named Admiral, was truly admirable with his endearing personality. He presented as a typical abandoned harbor seal pup – dehydrated and in inadequate body condition. He also had an infected wound on his left hind flipper. The wound was slow to heal, despite oral and topical treatments. With time and patience, Admiral grew to be healthy and strong. Admiral was also a born hunter and, much like his cohort, swiftly passed fish school on his first introduction to live fish. The two proved to be excellent competition for each other as they prepared for release back to the ocean. Both seals spent 84 days in our care before being released on North Kenai Beach on August 24th

On August 22nd our third and final summer pinniped patient climbed onto a fishing charter boat in Resurrection Bay just outside of Seward. The boat crew called our hotline immediately for advice. The seal pup appeared to be exhausted, and photos showed it to be emaciated. Upon admit, the male pup weighed that of a typical newborn harbor seal, but was estimated to be almost 3 months old. He was extremely lethargic and in desperate need of care. In addition to the obvious issues, his vet exam revealed a severe bacterial infection. We named the pup Cerulean. Rehydration uncovered a significant sloughing of skin and tissue on his left front flipper – likely the result of a crushing trauma.



ASLC members were invited to our two seal releases this summer as the world returns to "normal."

When offered fish, we assumed he'd be quick to eat since he had already been weaned for some time. However, it was challenging for him to position the fish and swallow them properly. Physical disadvantages were ruled out, and with lots of practice he became proficient in the art of feeding himself. While it was clear Cerulean needed some extra time to learn how to be a seal and alleviate his ailments, he was successfully released on November 1st from Lowell Point Beach in Seward. To everyone's delight, he was observed foraging immediately after returning to the big blue!

Highlight your efforts by submitting photos of stranding responses for use in outreach to: mmhsrp.images@noaa.gov



2022034, Sun'aq Tribe of Kodiak & Alaska Veterinary Pathology Services

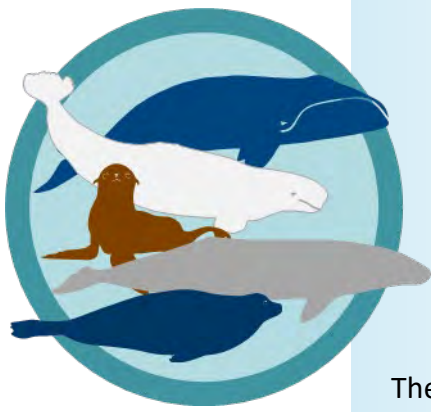


2022033, University of Alaska Sitka response to a humpback whale carcass with evidence of killer whale predation



2022005, NOAA Fisheries necropsy a Steller sea lion





John H. Prescott Grant continues to support marine mammal conservation efforts

The John H. Prescott Marine Mammal Rescue Assistance Grant Program was established under the Marine Mammal Rescue Assistance Act of 2000 as an amendment of the Marine Mammal Protection Act and is administered by NOAA's Marine Mammal Health and Stranding Response Program. This grant provides funding to members and collaborators of the Marine Mammal Stranding and Entanglement Response Networks to support the rescue and treatment of stranded marine mammals, data collection from living or dead mammals for health research, and facility operation costs dedicated to these purposes. The stranding and entanglement response networks are comprised of trained professionals and volunteers from nonprofit organizations, aquariums, academic institutions, and local, state, and tribal governments whose tireless efforts in responding to marine mammals in distress is invaluable.

Consistent funding is important for the continued success of the National Marine Stranding Network, and the Prescott Grant Program has contributed to improvements and operational needs of stranding networks along the U.S. coast. Prescott funding has enabled stranding and entanglement network members to expand response coverage to wider geographic regions, upgrade rehabilitation facilities and conduct post-release monitoring on rehabilitated animals, screen animals for diseases, and increase the understanding of the causes of morbidity and mortality in wild marine mammals. NOAA Fisheries relies on the long-standing partnerships with Stranding and Entanglement Response Network members to develop and maintain effective conservation efforts for marine mammal populations.

Since its inception in 2001, Congress has appropriated approximately \$4 million annually to the Prescott Grant Program, and NOAA Fisheries has awarded \$71.2 million to stranding network partners. For the fiscal year 2022, NOAA awarded \$3.7 million in grants to response partners in 20 states and one tribe, with Alaska receiving 3 out of the 49 competitive grants awarded. Alaska recipients for 2022 include the Sun'aq Tribe of Kodiak, University of Alaska Anchorage, and the Seward Association for the Advancement of Marine Science, with funding allocated to various projects such as training stranding network members to live capture and disentangle marine mammals, and supporting response operations and training for remote responders. A list of all the 2022 Prescott Grant Award recipients can be viewed at

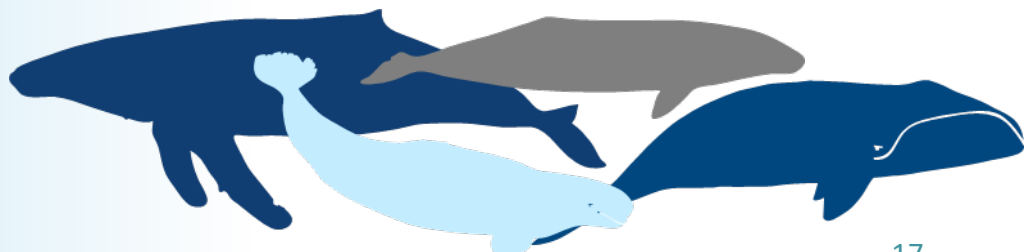
<https://www.fisheries.noaa.gov/fy-2022-prescott-grant-awards>.

The submission period to apply for the fiscal year 2023 federal funds officially closed on October 12, 2022, and award recipients will be notified between July and September 2023. In the event of an unexpected circumstance such as a mass stranding, natural or anthropogenic disaster, or disease outbreak, eligible members may be able to receive emergency funds from the Prescott Grant Program. To learn more about the Prescott Grant Program, application process, emergency funds, etc., please visit <https://www.fisheries.noaa.gov/grant/john-h-prescott-marine-mammal-rescue-assistance-grant-program>.



Prescott Grant Awards 2022-Alaska recipients

Recipient	Project Title	Award Amount
Seward Association for the Advancement of Marine Science	Funding for Wildlife Response Operations and Training Remote Responders in Alaska	\$99,974
University of Alaska Anchorage	Continued Strengthening of Alaska's Marine Mammal Stranding Program through a Statewide Stranding Coordinator for level A - C Response with Improved Data and Sample Management	\$100,000
Sun'aq Tribe of Kodiak	Training Stranding Network Members to Live Capture and Disentangle Steller Sea Lions Around the Northern Kodiak Archipelago, Alaska	\$54,987



Juneau Humpback Whales and Stress

Juneau is home to the busiest whale-watching industry in Alaska, and perhaps the world! In 2019, an estimated 367,000 tourists booked whale watching excursions on one of the 68 passenger vessels operating out of Juneau's Auke Bay. NOAA Fisheries has long been interested in examining the balance between characterizing the benefits of whale watching and understanding the potential impacts in order to manage the industry sustainably.

The unprecedented years of greatly reduced tourism in Juneau during the COVID-19 pandemic provided a new opportunity to study humpback whales near Juneau in the near absence of whale watching tourism. The study is supported by NOAA Fisheries Alaska Regional Office, Protected Resources Division through a Grant to Pacific States Marine Fisheries Commission. It is a fantastic example of collaboration: the PI, Heidi Pearson, at UAS and three co-PIs: Suzie Teerlink at NOAA Fisheries Alaska Regional Office, John Moran at NOAA Fisheries Auke Bay Laboratories, and Shannon Atkinson DeMaster at UAF. Together, we collected baseline measures for humpback whales in the Juneau tour area during periods of whale-watching vessel traffic that was extremely low (summer 2020) and moderate (summer 2021) and high (summer 2022, when tourism was back to "normal" levels).

A combination of photo-identification and biopsy sampling was conducted each summer. Weekly photo-identification surveys occur during May-September and blubber biopsy sampling was focused on two seasonal time periods – early (May/Jun) and late (Aug/Sept) season. We had a target of 40 blubber/skin biopsy for each year, with a goal to repeat sample approximately one-third of individuals across both time periods. Hormones (progesterone, testosterone, cortisol, corticosterone) are analyzed by extracting lipid from the blubber of each biopsy sample in Shannon Atkinson's Endocrinology Lab at UAF's Lena Point Facility. Genetic sex determinations were made by Scott Baker's lab at Oregon State University (OSU). The effect of prey availability on humpback whale residency and possible stress response levels was also considered using field observations of prey.



Photo: Bruce Baker, NOAA Research Permit # 20648



Photo: Jayleen Bydlon, NOAA Research Permit # 20648

By
Suzie Teerlink
NOAA AKR
Protected Resources Division



The goals of this study include:

1) To determine humpback whale presence, local abundance, and residency patterns through vessel surveys and photo-identification. We will compare variation in local abundance and residency patterns between 2020, 2021, and 2022. We will also use our historical dataset going back to 2013 to assess longer-term variation. Photo-identification data will further be used to validate pregnancy hormone markers derived from blubber biopsy samples (i.e., we can determine if a female documented with a calf in Summer 2022 was sampled during Summer 2021 and assigned a reproductive status of “pregnant” based on progesterone concentrations); this is critical in assessing reproductive rates.

2) To measure stress hormone biomarkers through blubber biopsy sampling. We will examine variation in stress response biomarkers (i.e., corticosterone) according to sex and reproductive status, and year (tourism level). Repeated sampling of the same individuals within and between years will allow us to control for individual-level variation while also assessing intra-annual change. We will also examine indices of prey availability in an attempt to control for the effect of prey on stress hormone levels.



Photo: Heidi Pearson NOAA Research
Permit # 20648



Photo: Suzie Teerlink,
NOAA Research Permit # 20648

We are currently working to analyze the 2022 samples and then will move into data analysis from there.

See the NOAA [webstory](#) from 2021 and short BBC [video](#) for more on this study.

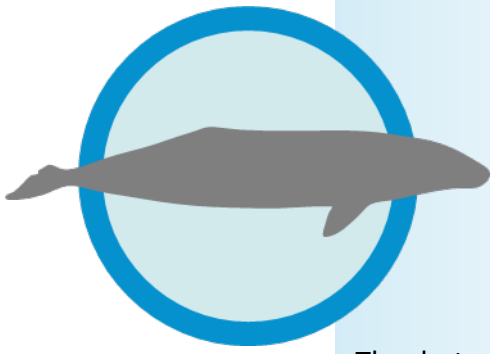
If anyone has questions, please feel free to reach out:

hcpearson@alaska.edu

suzie.teerlink@noaa.gov

john.moran@noaa.gov

shannon.atkinson@alaska.edu



Large Whale Entanglement

By
Sadie Wright

Thanks to many of you assessing and documenting entangled whales, we learned details about a number of cetacean entanglements in Alaska in 2022. As of November 16, we have received 12 confirmed entangled whale reports, 1 unconfirmed report, and 2 reports that we determined were not entangled whales. Of the confirmed reports, 8 were humpback whales, 2 were harbor porpoise, 1 was a gray whale, and 1 was an unidentified large whale.

The entangled gray whale received quite a bit of attention when community members in Angoon notified the media that they had responded and removed Washington-based commercial Dungeness crab pot gear from a whale. NMFS learned about this event after-the-fact, and we are so thankful that no one was hurt. Our Alaska Large Whale Entanglement Response (LWER) team evaluated photos and video of the animal after the disentanglement and determined that all gear had been removed. We encouraged the responders to work with the LWER Program to safely prepare for future responses.



Figure 1. Entangled gray whale near Angoon, Alaska. Photo courtesy of Frank Willis.

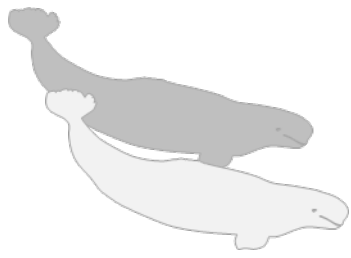
Our National LWER outreach team developed this [new webpage](#) encouraging untrained observers of entangled whales to contact their regional LWER qualified experts. Please share this webpage with the on-water community in your town, along with this link to [online Level 1 entanglement response training](#), which focuses on assessment and reporting.

We also made great progress in being prepared to respond to entangled whales in Alaska. A number of you participated, coordinated, or helped lead trainings and workshops with Ed Lyman this year. A [webstory](#) summarized some of those 2022 large whale entanglement response trainings. In addition to the community hands-on trainings, many of our Alaska-based Level 4 responders and some Level 3 responders attended a National Large Whale Entanglement Responder meeting led by our National LWER Program and hosted by Sea World in San Diego, CA. The group traded success stories and lessons learned, reviewed new tactics and tools, and conducted on-water and shore-based demonstrations. Thanks for all of your efforts! We hope to bring hands-on training to a community near you in 2023. Please keep reporting, or relaying reports, of entangled whales in your area. Even after-the-fact reporting helps us better understand how often entanglements are occurring, and what type of materials and gear whales are becoming entangled in.

More details are available in this [Juneau Empire article](#).



2022262, gray whale Tugidak Island during a USCG supported carcass survey associated with the gray whale UME



2022 Beluga Counts

On Saturday, September 17, 2022, NOAA Fisheries and partners welcomed the return of Belugas Count! This celebration, begun in 2017, is the largest annual one-day public outreach event for the endangered Cook Inlet beluga whale; however, it had been on pause the previous two years due to the COVID-19 pandemic.



Alaska Wildlife Conservation Center (AWCC) staff show off Belugas Count! staff attire at the AWCC viewing station in Turnagain Arm.

The 2022 event featured 14 public viewing stations throughout Cook Inlet as well as 16 private counting stations on oil and gas platforms and industry shoreline facilities. Over 165 individuals from NOAA and 18 partners, including representatives from Georgia and Shedd Aquariums, staffed these stations, scanning for and counting belugas and engaging with the public to increase awareness of this endangered population and how to support its recovery. More than 1,050 members of the public attended and an additional 32,000 were reached via the Belugas Count! Facebook page. A total of 35 belugas (including one individual seen off-effort) were sighted across 5 stations. In attendance from the Stranding Network partners were AVPS members Kathy Burek Huntington and Natalie Rouse, who visited with the public at several event locations, and NOAA Team Rotten members Barbara Mahoney, Caroline Cummings, and Bonnie Easley-Appleyard, who helped lead the Tyonek station and two stations in Anchorage, respectively.

Planning is already underway for next year's Belugas Count!, which will be held Saturday, September 23, 2023. For more information on how to become involved in the event, please contact Jill Seymour, Cook Inlet Beluga Recovery Coordinator, jill.seymour@noaa.gov.



(Left to Right) NOAA Protected Resources Division staff Jenna Malek, Verena Gill/Betty Beluga, and Anne Marie Eich join Amber Stephens (second from right) in staffing the Bird Point Viewing Station in Turnagain Arm.



**NOAA
FISHERIES**

Alaska Region

Cook Inlet Beluga Whales

Confirmed Stranding Reports

Dead Strandings

There were 62 dead stranded Cook Inlet Belugas (CIB) during the last six years with between 3 and 12 reports each year (Fig 1). Most stranded CIB (77%) were in moderate or advanced decomposition state when first observed, which limits the ability to determine animal health and cause of death. Stranding Network members responded to nearly 80% of stranded CIB. However, strandings in remote locations, changing tides, or delay in reporting the carcass prevented some responses.

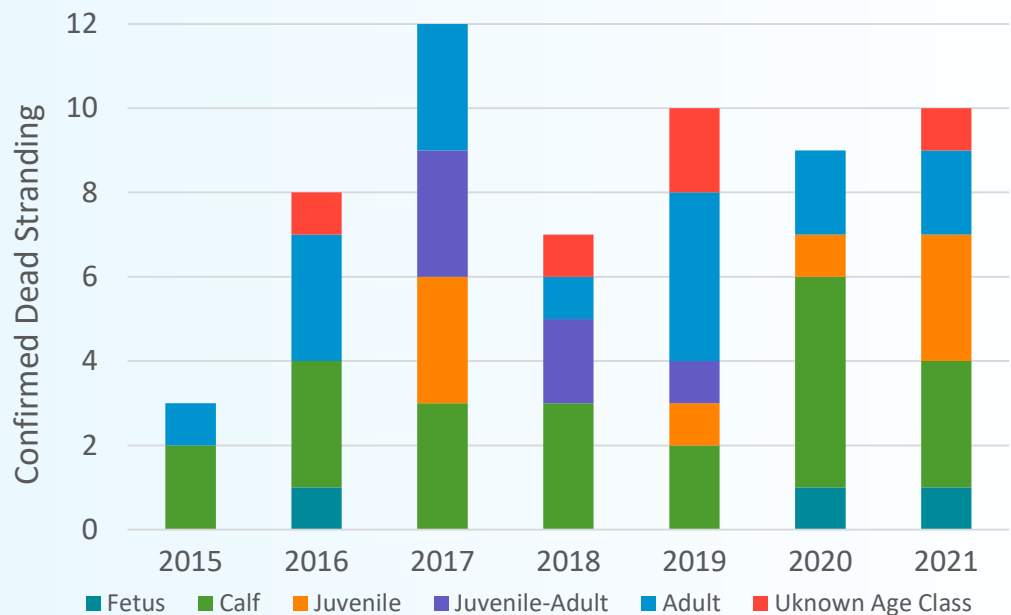


Fig 1. Confirmed stranding reports of dead Cook Inlet beluga whales by year and age class.

Live Strandings

Live strandings of multiple belugas occur fairly regularly in Cook Inlet. There were six confirmed live stranding events between 2015 and 2021, involving an estimated 30 CIB (Table 1).

Table 1. Six confirmed live stranding events of CIB occurred between 2015 and 2021.

Summary	Date	Location
Cow-calf pair	8/27/2015	Turnagain Arm, Bird Point
Calf (Tyonek)	9/30/2017	Trading Bay
6 live CIB	9/27/2019	Kenai River, Rocky Point
Cow-calf pair	9/11/2020	Turnagain Arm, Bird Point
2 live CIB	10/17/2020	Turnagain Arm, Hope
17 live CIB	10/19/2020	Knik Arm, Birchwood



Mass live stranding (Knik Arm, 10/19/2020).

We thank the public for reports of strandings and the Alaska Veterinary Pathology Services and the Alaska Sealife Center for efforts in responding to strandings in Cook Inlet.

Response Rate
2015-2021
79%

1-877-925-7773

24-Hour Stranding
Hotline

Time is of the essence!

The sooner you report it, the sooner we can respond and learn something!



The Pinniped Entanglement Group (PEG), that many of you are already members of, has several new updates. In the past couple of months, our very first PEG website went live!

<https://pinnipedentanglementgroup.org/>

By Lauren Divine, Aleut Community of St. Paul, Alaska, Ecosystem Conservation Office
<https://www.aleut.com/eco/> and
Mike Williams, NOAA Fisheries Alaska Region, Protected Resources Division
<https://www.fisheries.noaa.gov/region/alaska#protected-marine-life>

On June 25, 2019, a northern fur seal 4-5 year old male was observed on Little Zapadni Beach haulout, St. Paul Island, Alaska with a packing band entangled around its neck causing a 270 degree wound. Rescuers Paul Melovidov, Aaron Lestenkof, Michael Williams, and Miron Kochergin captured and disentangled the animal.
On July 20, 2022: Three years later, this adult male (P242) was resighted alive and healthy! It was great to see that this male was alive and doing well three years post-disentanglement!

If anyone is interested in learning more or joining PEG, please contact Kim Raum-Suryan at kim.raum-suryan@noaa.gov. Thank you!

PEG
Pinniped Entanglement Group

November 2022 Newsletter

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These references are based on data and/or samples collected by the Alaska Marine Mammal Stranding Network

Recent Stranding Publications and Outreach

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Let us know if we missed your paper!

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A humpback whale carcass (2022021) photographed by the USCG near Cold Bay with a wolf nearby

NMFS Stranding Program Contacts

Mandy Keogh

Regional Stranding Coordinator

907-209-0637

Mandy.Keogh@noaa.gov

Barbara Mahoney

Assistant Stranding Coordinator

Parts Transfer Authorizations and

Tracking

907-271-3448

Barbara.Mahoney@noaa.gov

Sadie Wright

Assistant Stranding Coordinator

Large Whale Entanglement Response

Coordinator

907-586-7630

Sadie.Wright@noaa.gov

Caroline Cummings

Caroline.Cummings@noaa.gov

Kim Raum-Suryan

Pinniped Entanglement Coordinator

907-586-7424

Kim.Raum-Suryan@noaa.gov

Kate Savage, DVM

Health Specialist

Kate.Savage@noaa.gov

24-hour stranding hotline:

1-877-925-7773

