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Alaska Region

Winter 2023 Alaska Marine Mammal Stranding Newsletter



MMHSRP Permit 24359

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

Photo credit: Kathy Peavey

Winter 2023 Alaska Marine Mammal Stranding Newsletter

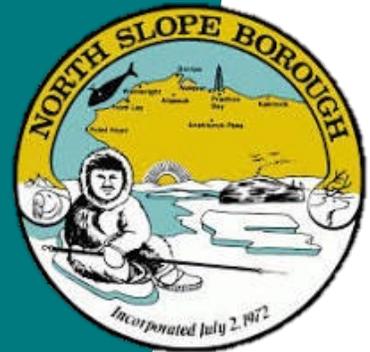


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By:
Mandy Keogh, Ph.D.



Returning to a USCG helicopter with samples during a carcass survey of the Copper River Delta.

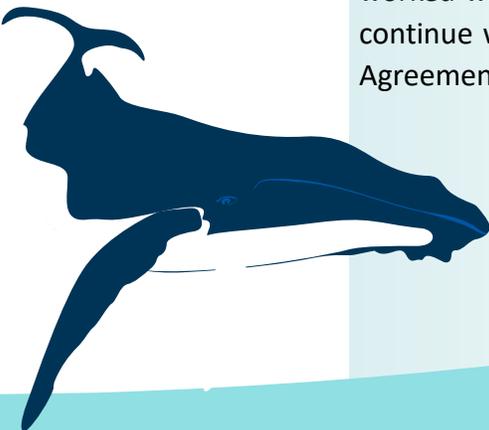
Greetings from the Stranding Coordinator

As of November 28th, there have been 283 stranded marine mammals reported in Alaska (not including live, free-swimming entangled large whales or entangled pinnipeds with no response). Some of these events have been quite memorable and are discussed later in the newsletter. In this past year, stranding network members have completed eight United States Coast Guard-supported carcass surveys as part of the ongoing gray whale Unusual Mortality Event (UME) and an additional six surveys (each being a one-to-two-day effort) of the Copper River Delta.

The [John H. Prescott Marine Mammal Rescue Assistance Grant Program](#) recently awarded 50 competitive grants totaling \$4,071,231 to recipients from 20 states and one tribe. This included two awards to Alaska Marine Mammal Stranding Network members - the Alaska SeaLife Center and the University of Alaska Anchorage/Alaska Veterinary Pathology Services. Both proposals focus on supporting stranding response and training statewide, with a particular focus on remote areas.

We are planning the 2024 Alaska Marine Mammal Stranding Network Meeting, which will be held in conjunction (but offsite) with the Alaska Marine Science Symposium (see pg. 5 for details). We are still working out the logistics, but hope to have participants join both virtually and in person. Details will be sent out 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 it is finalized.

Lastly, the NOAA part of the Alaska Stranding and Entanglement Network will go through some changes in the coming months as Kate Savage 'migrates towards retirement'. While we may not see (or email) Kate as often as we are used to, and while she has been the go-to for stranding and entanglement responses, we feel incredibly fortunate to have worked with her for the past 15 years! We are even more fortunate that Kate plans to continue with field response when she can, and plans to work under existing Stranding Agreements.



By:
Kate Savage, D.V.M.

Kate has worked with NMFS for over 15 years!

We thank her for her hard work and dedication to marine mammal research and stewardship in Alaska.

Stranding reports that are not time sensitive can be sent to

nmfs.akr.strandings@noaa.gov

Hello friends from the Alaska Stranding Network!

Just a quick note to let everyone know that I will soon be retired from my current work with the National Marine Fisheries Service. Kathy Burek and Heidi Pearson have both graciously allowed me to continue under their Stranding Agreements, so I hope to continue with field work, but as of Dec. 15, my email will switch to savagekkn@gmail.com.

Most importantly, I would like to thank each and every one of you for a fabulous time in the marine mammal world! I think our Alaskan community is one of the most cooperative and cohesive in the country and it has been both a tremendous pleasure and privilege being a part of it. I hope to see you all again - on the beach or on the water – until then, much, much thanks!



Veterinarian Kate Savage conducting a necropsy on a humpback whale.





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Alaska Marine Mammal Stranding Network

2024 Annual Meeting

Monday, January 29 from 8 a.m. – 1 p.m.



Virtual Option: *To be determined*

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

Sitka High School Humpback Rarticulation Project

By:
Lauren Wild, Ph.D.

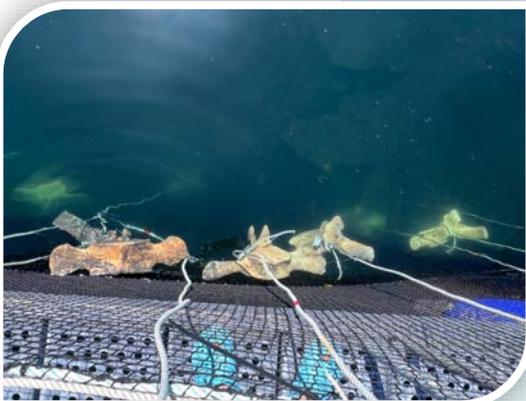
In March 2023, a 1-year-old female humpback whale (2023009) washed up on a beach near Sitka. Stranding network volunteers conducted a necropsy, but the cause of death could not be determined. Seeing an opportunity for her students, Sitka High School biology teacher and stranding network volunteer Stacy Golden decided to organize a project to collect the whale's bones and rearticulate the skeleton. With help from Dr. Lauren Wild, stranding coordinator and Assistant Professor at University of Alaska Southeast (UAS) Sitka campus, and Alex McCarrel, Research Coordinator at the Sitka Sound Science Center, groups of stranding volunteers and high school marine biology students travelled to the site in early May and early June to collect the bones.



Students and volunteers extracting bones from the whale carcass.



A Sitka High School student holds a recovered scapula.



Vertebrae hang in net pens at the Medvejie hatchery in Sitka.

The bones were then brought to Northern Southeast Regional Aquaculture Association's (NSRAA) Medvejie hatchery where they were hung in net pens to soak for a few months. Here invertebrates and bacteria went to work cleaning off the remaining tissue.



Shannon Atkinson DeMaster, Ph.D. of UAF's College of Fisheries & Ocean Sciences boils some whale bones during the Boil-a-Thon.

In September, Dr. Shannon Atkinson DeMaster of University of Alaska Fairbanks' College of Fisheries & Ocean Sciences traveled over from Juneau to help with the first bone cleaning weekend, nicknamed a "Boil-a-Thon." Groups of volunteers from the community and students from the high schools and UAS came by to take shifts soaking, boiling, scrubbing, and cleaning the bones.



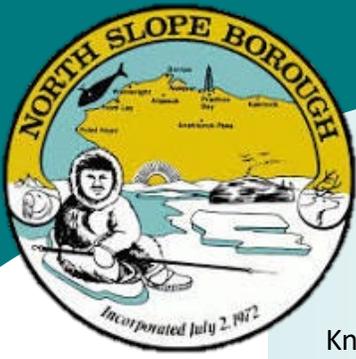
Boiling whale bones helps release naturally occurring oils before they are bleached and rearticulated.



A student carefully cleans a bone to remove any remaining tissue.

But, there is still plenty more work to be done! The UAS welding classes, under Luke Gibes, will prepare for a few more Boil-a-Thons this fall by making a steel tank to soak the skull and mandible. Soaking the bones in hot water helps bring out the naturally occurring oils, after which point the bleaching and re-articulation process can begin. Golden is hoping to offer dual credit college classes for high school students and potentially community members through this project and is aiming for the rearticulated skeleton to be hanging in the Sitka High School commons by Fall 2024.

Many thanks go out to [NSRAA](#), [Allen Marine](#), [K&E Alaska](#), [AML](#), Matt Golden, [UAS Welding](#), and the many volunteers who have helped so far!



North Slope Borough Department of Wildlife Management

By:
Michelle Dutro, M.S.

Knives hanging from their hips, Dr. Raphaela Stimmelmayer and Rita Frantz stand atop the body of a stranded bowhead whale. With gloved hands, Dr. Stimmelmayer cuts into the whale's flesh, collecting skin, blubber, and eye samples that will contribute to the long-term monitoring of the Arctic bowhead whale population. Polar bears may soon catch the scent of this large meal, and as the surf from the Chukchi Sea pounds against the shoreline, threatening to take the whale carcass away with the rising tide, Dr. Stimmelmayer and Rita Frantz know they have to act fast.



Dr. Stimmelmayer and Wildlife Research Assistant Rita Frantz collect samples from a stranded bowhead whale in September 2023 (20231003). Stranding network responders often have to return to carcasses multiple times to collect samples due to waves and rising tides (Credit: NSB DWM).



Polar bears scavenge on the beach (Credit: Raphaela Stimmelmayer).

Dr. Stimmelmayer is a Research Biologist with Alaska's North Slope Borough (NSB) Department of Wildlife Management (DWM). Located in the remote Arctic on the edge of the Beaufort and Chukchi seas, the NSB spans over 1,000 miles of coastline and includes eight villages - Utqiagvik, Point Hope, Point Lay, Wainwright, Atkasuk, Anaktuvuk Pass, Nuiqsut, and Kaktovik. NSB DWM collects data on a wide range of environmental stressors like marine debris, avian influenza, beach erosion, harmful algal blooms, and (of course) [stranded marine mammals](#). These "holistic beach surveys," as Dr. Stimmelmayer calls them, are conducted across the North Slope, with each village working a 50-mile survey radius. This effort provides quite thorough coverage over a large geographic area.

The NSB DWM has held a formal Stranding Agreement since 2011 (SA-AKR-2022-07). But, Dr. Stimmelmayer says,

"There has always been a traditional stranding network here." Monitoring of beach-cast animals is a traditional, customary practice that has involved a local network of subsistence hunters and community members for thousands of years. Whether it's a wash-up of benthic invertebrates affected by a harmful algal bloom or the site of Alaska's most northern [fin whale stranding](#), Dr. Stimmelmayer says Alaskan coastal communities – like those on the North Slope – are incredibly knowledgeable about the marine ecosystems on which they depend.

Subsistence hunters, community members, and NSB DWM researchers, all collaborate to report and respond to strandings. However, accessing stranded animals in remote areas with intensifying weather has proven increasingly challenging. Ongoing beach erosion has forced responders and hunters to take longer routes over the tundra, as storm surges have created impassable outflows from Nunavak and Walakpa Bay. With these new barriers to beach-based ATV travel, the NSB stranding network may eventually be forced to survey by boat, despite rough sea states.



A Bowhead whale carcass (0920_FD) in high surf.
Credit: Dr. Raphaela Stimmelmayer).

Changes in species presence and seasonality have also been documented, with hunters reporting increased numbers of killer whales present during the 2023 fall hunting season as well as strandings of species that do not typically occur in the area. On November 3rd, a humpback whale stranded just outside of town in Utqiagvik. Community members are so unaccustomed to seeing humpback whales in this area, that it was originally reported as a minke whale. Continued monitoring is needed to examine what impacts these species range shifts and the extension of seasonal species presence may have on the Arctic ecosystem and subsistence resources.

Additionally, revitalization of aerial carcass surveys (which ended in 2019) conducted by NOAA, BOEM, and NSB to document entanglement, vessel strike, and killer whale predation of bowhead whales in the high Arctic (George et al.

2017; George et al. 2019; Willoughby et al. 2020; 2022), would provide far more robust stranding data for bowheads and other opportunistically observed cetacean species.

Overall, Dr. Stimmelmayer says, the strength of the communities and their depth of knowledge is what makes NSB DWM a successful stranding network partner. She added, “We want to especially thank the hunters and communities of the North Slope who are keeping us informed about what they see when traveling the ocean and local beaches. Also a big thank you to the many NSB DWM staff actively involved, including (from Utqiagvik): Billy Adams, Quincy Adams, Christina Aiken, Perry Anashugak, John Citta, Rita Frantz, Janel Kaleak, Lucy Leavitt, Jared Nayakik, Frances Olemaun, Bobby Sarren, Kayla Scheimreif. As well as Larae Agnasagga (Wainwright), Nathan Gordon (Kaktovik), Carla SimsKoyutuk (Kaktovik), Michael Tuzroluk (Point Hope), and to all the NSB DWM wildlife interns who every year support our bi-weekly beach surveys during the open water season.”



Bowhead whales have been harvested by Alaska Natives for subsistence for thousands of years. Harvest data is collected by NSB DWM and the Alaska Eskimo Whaling Commission (Credit: NSB DWM).

Case Study: Manu Entanglement, 2023

By:
Fred Sharpe, Ph.D.

The Juneau area provides unparalleled viewing of foraging humpback whales. Bubble netting, deep diving, and echelon feeding are enjoyed by humpback whales in local waters. Nearly 250 whales have been identified in the past 15 years, with credit going to [Juneau Flukes](#), [NOAA Fisheries](#), [UAS](#), [Happywhale](#), and to hundreds of citizen scientists for sharing their imagery. A local favorite whale in the Juneau area is Manunauna, whose migratory affinities include West Maui and was named for a Molokai deity. First sighted in 2012, he has since been documented in the Juneau area dozens of times and observed in west Maui nearly annually since 2019.



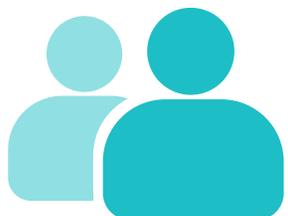
Manuauna taking a deep dive on July 18, 2023 in Frederick Sound, trailing a telemetry buoy used by responders to temporarily track his movements (Credit: Jim Nehmans).

Manu has a striking black and white fluke, and his habit of lunging near shore, wielding bubble nets, has made him a celebrity among local residents. Foraging haunts include Amalga Harbor, Pearly Harbor, and inside the breakwater in Auke Bay! Manu also frequents eastern Frederick Sound, and has ventured a good distance up Taku Inlet and Endicott Arm.

Unfortunately, Manu's predisposition to feed near shore may have put him at greater risk of entanglement in recreational crab pot gear. On the morning of July 3rd, Manu became entangled in recreational Dungeness crab gear in Fritz Cove, north of Juneau. The initial event was witnessed by experienced observers Wes Larson & Pat Berry from the Auke Bay Lab. They were out trolling for king salmon and watching Manu lunge feed over and over, when they noticed an abrupt change in his behavior. Manu started breaching, and a line and buoy from a crab pot were visibly trailing him. This early report alerted trained responders and facilitated their timely response.

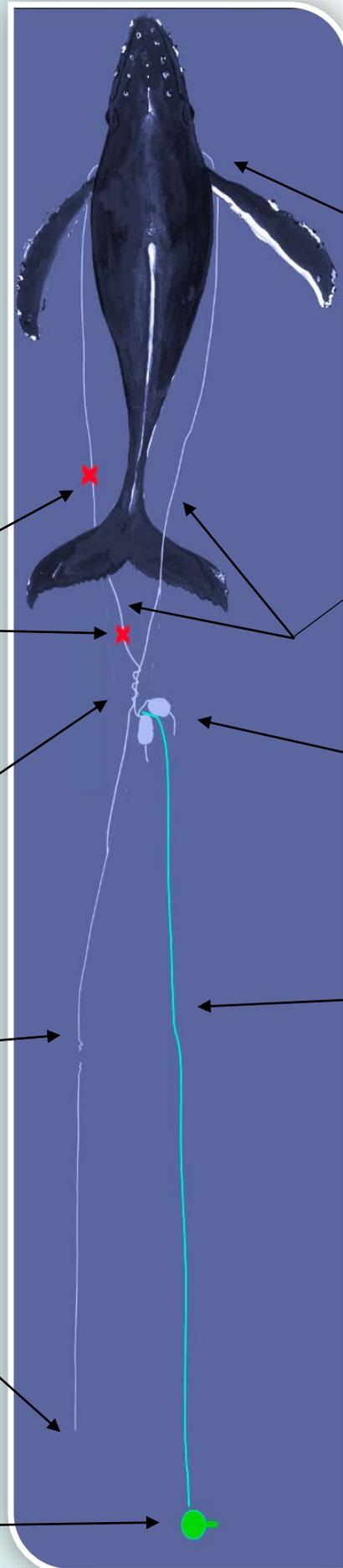


Remember: Photo ID is the backbone of whale research! You can make a difference for Alaskan whales by submitting your fluke and dorsal fin photos to [Juneau Flukes](#), [NOAA Fisheries](#), [UAS](#), or [Happywhale](#)!



Anatomy of the Manu Entanglement

The gear owner, identified from buoy markings, was contacted right away and gave a detailed description of the ensnaring gear. The entanglement involved a line through the mouth, with lines trailing behind the animal to form a bridle extending back to two Spongex® buoys just aft of the tail (see schematic). Telemetry was affixed to the animal on the afternoon of the first day with the assistance of the United States Coast Guard. Ultimately, this event would last nearly three weeks and span multiple responder districts as the animal traveled at least 700 nautical miles.



Confirmed mouth entanglement.

Lines run above and below the flukes. A majority of the time, lines have favored the right side of the tail flukes.

A pair of ~9" Spongex® bullet buoys trailing 10 to 15 feet behind the flukes when the animal is underway.

About 75 feet of ½" buoyant poly blend tether line, which is clipped in near the buoys. The tether line connects a telemetry buoy attached by responders to track the whale for continued disentanglement attempts.

Locations for cut attempts.

From the early imagery, it appears as if the buoy line side has twisted around the pot side of the line.

About 25 to 30 feet of small gauge, non-buoyant, hard lay recreational pot line trailing behind the animal.

Bitter end – meaning the crab pot is no longer attached.

Telemetry buoy

Schematic illustration of entanglement and proposed action plan. Credit: Ed Lyman/NOAA MMHSRP.

The high mobility and fast pace of Manu offered both a challenge and an opportunity to pull in participation from trained responders throughout the region. After attaching a telemetry buoy to the entangling gear, responders were able to track Manu's location. While satellite tags are normally deployed with a galvanic link that will automatically disconnect the telemetry buoy after ~10 days, this step was overlooked, enabling the tracking buoy to stay with the whale for as long as the entangling gear did. However, the event was challenged by low quality satellite tag fixes - an issue that remains under investigation.

The weather was cooperative and allowed for [Alaska Whale Foundation](#) responders operating out of Warm Springs to document Manu's bridle configuration, over-all good health, and rapid headway that likely contributed to the reduced satellite fidelity.

A response was launched a few days later in Frederick Sound by the [Petersburg Marine Mammal Center](#). They covered a large swath of eastern and central Frederick Sound, utilizing two vessels and VHS telemetry, but could not locate Manu. Several days later, M/V Northern Song provided helpful observations over a two-day period, during which time Manu appeared healthy and was spotted moving an estimated seven knots!

After three long weeks of analyzing erratic dots on a map and attempting to read the tea leaves of the low quality satellite fixes paired with a fast moving whale - something changed. Starting late in the day on July 20th, the tag was no longer erratic Manu no longer appeared to be swimming around Frederick Sound. *Did Manu suddenly die or was the tag adrift sans whale?* We got our answer the following day when the tag and gear were recovered by Pybus Point Lodge. Subsequent analysis indicated that drag from the buoy and telemetry package had caused the line to twist, weaken, and eventually break, allowing the animal to swim unencumbered!

Areas for operational improvement include preseason training using simulated galvanic links (via carabiner substitution) and improved consultation of checklists, especially regarding the programming and deployment of telemetry.



Manu's movement path, tracked using satellite telemetry. This detailed movement information enabled response teams from all over the region to respond and attempt to disentangle the whale over the course of multiple weeks (NOAA MMHSRP).

The configuration of the telemetry package (and all tool interventions) should be cross-checked with fellow responders prior to implementation.

Because the time release clip was not applied, greater responsibility was put on responders to track and access the animal.

Mouth entanglements can be particularly dangerous for baleen whales, as narrow-gauge line cuts into the webbing at the corners of the mouth. This webbing serves as an elastic barrier at the confluence of the upper jaw (maxilla) and the lower jawbone (mandible). It offers an important feeding mechanism as it aids in the scooping of water during lunging, serving as a dam that diverts prey-laden water toward the baleen. The webbing is composed of connective tissue (and skin) and is presumed to be non-regenerative (P. Folkens pers. com).

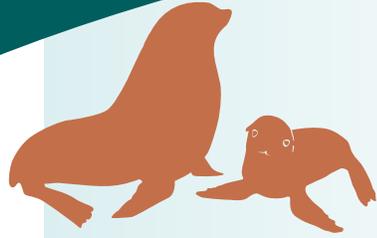
Manu provides an occasion to remind crabbers about keeping recreational pots and buoys in good trim (e.g., using non-floating line, and securing excess line to reduce the amount of line in the water column). Whale pingers are also available online and their efficacy is being studied in local waters.

We are thrilled that Manu was resighted on October 27th in Frederick Sound by the Alaska Whale Foundation (permit # 19703). Researchers reported he looked healthy with no obvious signs of trauma.

A big shout out to all those helped including USCG, PMMC, AWF, TSMRI, NOAA Fisheries AKR Protected Resources, M/V Northern Song, and Pybus Point Lodge.



AWF photo of Manu with bridle (Credit: Andy Szabo, permit # 19703).



Steller Sea Lion Entanglement Response Training in Kodiak, Alaska

By:
Kim Raum-Suryan, M.S.
Lauri Jemison, M.S.
Kate Savage, D.V.M.
Matt Van Daele, M.S.

For a number of years, we have been pursuing funding to begin training Steller sea lion entanglement responders, including veterinarians, on Kodiak Island. We receive many reports of entangled Steller sea lions in Kodiak Harbor, but our primary response team is in Juneau, Alaska – two flights and essentially a full day of travel away. As a result, entangled animals have continued to suffer because, even when a team from Juneau travels to Kodiak to respond, by the time they arrive, the animal has often moved on to a new location. So, we are thrilled that Matt Van Daele of the Sun’aq Tribe, and Lauri Jemison of the Alaska Department of Fish and Game (ADF&G), along with NOAA Fisheries collaborators, were awarded a John H. Prescott grant. This funding was used to conduct a remote sedation training in Kodiak! As with all Steller sea lion disentanglements in Alaska, this work is dependent on the long-term collaboration between ADF&G and NOAA Fisheries.

After a lot of coordination, we finally found a time when everyone involved was available to participate in a Kodiak-based training. Amazingly, it was over the entire Memorial Day weekend, overlapping with Kodiak’s Crab Festival. Kate, Lauri, and Kim flew in from Juneau. Casey McLean and Dr. Michelle Rivard (from SR3), and Paul Hillman (NOAA Fisheries) flew in from Seattle. The rest of the team from the Sun’aq Tribe (Matt Van Daele, Daniel Smith) NOAA Fisheries Office of Law Enforcement

(Phil Null, Joe Sekerak, William Gosnell), Kodiak Veterinary Clinic (Dr. Emily Iacobacci, Hannah White, Charlene Woodward, Ashley Grandy), Kodiak Water Taxi (Ed Ward, Tyler Randolph), Kodiak Backcountry Adventures (Jason Bunch), and retired ADF&G Biologist (Larry Van Daele) were already in Kodiak.

Training began in the classroom on Friday afternoon. We started off by reviewing some short videos of previous land and water-based captures. We followed that with information about authorization, permits, and liability; planning and communication; site evaluation and safety; disturbance, hazing, and skiff placement; and finally sampling, tagging, and data collection methods. Using the sampling gear, everyone was able to practice “tagging” cardboard flipper cutouts, and measuring (standard length, girth, etc.) our inflatable sea lion, Sammy. On Saturday morning, we continued in the classroom, practicing with capture tools. Dr. Kate Savage (veterinarian) then led an in-depth discussion on darting, the dart projector, and the drugs used to sedate and reverse sedation in entangled animals.



Trainees practice taking measurements of Sammy – the inflatable sea lion.

On Saturday afternoon and evening, we split the group into two boats and practiced assessing weights of different sea lions hauled out on the dock. We talked through different scenarios and practiced how we would approach and attempt to dart an animal. We also discussed best practices for risk mitigation and operational safety.

On Sunday morning, the team practiced darting outside the NOAA Law Enforcement office before taking the boats out in the afternoon. Out on the water, we were lucky enough to see an entangled yearling female Steller sea lion! After calling in a third boat for support, we utilized our new skills and successfully disentangled the sea lion. After she was released and confirmed to be doing well, we returned to the classroom to debrief our response. We identified what worked well and what improvements could be made in the future. We also made a list of lessons learned, as there are always new lessons to take away from each response. On Monday, we cleaned gear, worked on data and photos, packed up, and then flew home. It was a full weekend, but the training went very well. All participants were fully engaged, we had a number of participants who volunteered their time over the Labor Day weekend, and in the end, we were thrilled that we had an opportunity to actually sedate and disentangle an endangered female Steller sea lion.

About three weeks after the disentanglement, Kodiak kayak guide Wendy Eskew observed and photographed the small female that we disentangled. Wendy reported that the sea lion appeared to be doing well.



Above: The disentangled yearling Steller sea lion reunited with her mother and nursing on a dock in Kodiak (permit #24359).



Right: The training team aboard the response vessel. From left to right (Daniel Smith, Kate Savage, Lauri Jemison, Matt Van Daele, Kim Raum-Suryan, Emily Iacobacci, Hannah White).

Barnes Lake Killer Whale Entrapment Response

By:
Mandy Keogh Ph.D.

On September 30th, the stranding hotline received a report that killer whales had been swimming in Barnes Lake on Prince of Wales Island for several days. Barnes Lake is tidally influenced, with two narrow channels connecting to marine waters. Locals fish and crab in the lake and barnacles can be seen along the tide line - indicating the 'lake' is fairly saline. While we worked to gather information, we hoped the whales would find their way out of the area on their own. But, as the days passed and the high tides came and went, the killer whales remained.

Communication proved difficult in Coffman Cove - the small community closest to Barnes Lake. Cell service was not readily available, and internet-supported communication required a satellite connection. Thanks to our stranding partners with the [Alaska Whale Foundation](#), we were able to connect with Coffman Cove community members who had previously participated in Large Whale Entanglement Response Training. As more information became available, we learned that the whales had been in Barnes Lake since at least August 17th.

We received photos of the whales, which allowed Jared Towers with the Department of Fisheries and Oceans Canada (DFO) and Bay Cetology to identify the whales as Bigg's killer whales. The large male was identified as T051, a 42-year-old male who has been seen in British Columbia and Alaska. While we had photos of both whales,

we were unable to identify the second individual or assess either whale's body condition. Knowing that Bigg's killer whales eat marine mammals like seals and porpoises, we grew concerned that food resources in the lake were too limited to support these two apex predators.

As we moved into September, the tidal range was dropping. This meant the narrow channels leading out to sea would have less and less water moving through them – reducing the room the whales had to escape. Furthermore, we discovered that the northern channel had a large kelp bed near the entrance, which may have acted like a barrier to the killer whales.

We realized that the success of any response we could mount to encourage the whales out of the lake would be dependent on the tides, and the best tides were not until the end of September. We spent the next several weeks collecting information about Barnes Lake and the surrounding area.

Based on long-term research efforts by DFO and Bay Cetology, we not only knew the identity of T051, but knew which whales he traveled with and even had vocal recordings from several female killer whales he was associated with.



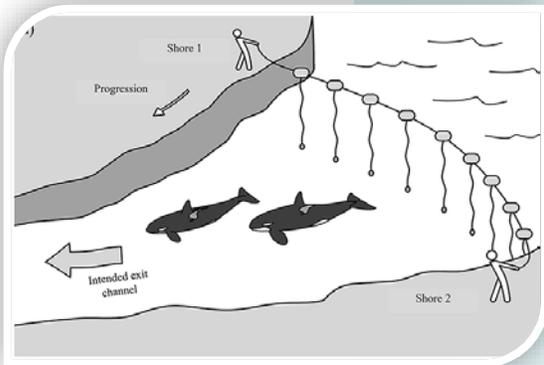
A map showing Barnes lake and the two narrow channels that connect it to marine waters.

The U.S. Forest Service collected drone footage under our Marine Mammal Health and Stranding Response Program (MMHSRP) Permit 24359 and ADF&G provided details on the kelp in the northern channel. We also connected with David Bain of the Orca Conservancy, who participated in a response to nine killer whales (offshore ecotype) entrapped in [Barnes Lake in 1994](#).

As we gathered more information and made connections with experts throughout the Pacific Northwest, a plan came together. The best opportunity for our response was during the high tides between September 28th and October 2nd, when the channels into the lake would be the deepest. However, the high tides also increased the amount of water passing through the narrow channels during the tidal changes, and each day we would only have a few hours during which we could enter and leave the lake because of the water levels and the strength of the current.

Our plan involved three tactics:

1. ***Playbacks (acoustic recordings)***: By playing the vocalizations of female killer whales that T051 has associated with, we hoped to attract the whales and lead them out of the lake. This tactic would require two boats, each with three people on board - the captain and two biologists. One boat would play the acoustic recordings using an underwater speaker, while the second biologist flew a drone and/ or collected notes. The second boat would collect underwater recordings using a hydrophone, collect data, and relay to the first boat if the playbacks were audible and what, if any, vocal response the two killer whales had to the playbacks.



Above: An illustration showing how Hukilau can be used to create a temporary barrier to whales ([Jourdain et al., 2021](#)). During this response, the lines and floats of the Hukilau were stretched out between two vessels, rather than using land-based tethers.

2. ***Hukilau***: A Hukilau is an ancient Hawaiian fishing method using lines and floats, in this case, with the goal of creating a temporary barrier so the whales were discouraged from swimming away from the exit. This method required two boats to deploy and two or three people per boat who were experienced deploying nets and similar gear.

3. ***Oikomi pipes***: Oikomi pipes are hollow metal pipes hung down into the water column. Noise made by pounding on the pipes with a hammer can be used as a deterrent to keep the whales from swimming in the wrong direction. Each pipe needed a boat and at least three people on board.



Left: Some members of the response team holding Oikomi pipes, which are lowered vertically into the water column and struck with a hammer to produce a noise deterrent (Credit: Kathy Peavey).



Response vessels in Barnes Lake (Credit: Jared Towers, MMHSRP Permit 24359).

All three of these tactics have been used to successfully encourage killer whales out of natural entrapments. Given the limited time we had to work each day during the high tides and the uncertainty of how the whales would respond to each approach, we planned to have all three tactics ready to be deployed, either separately, sequentially, or in combination.

While we had a plan forming, what we really needed were people with local knowledge and experience in the waters around Prince of Wales Island. And boats... we needed a lot of boats. Fortunately, we were in luck! Coffman Cove is a small coastal community where most people live, work, and play on the water. By late September, the tourist and commercial fishing season had largely ended and boats were available.

We waited and planned for the narrow window of opportunity brought by the upcoming high tides. In the days leading up, David Gann with the NOAA Alaska Region oil spill response team built and shipped 12 Oikomi pipes to Ketchikan. On September 24th and 25th, David Bain and Jared Towers (who both have previous experience with killer whale entrapments), University of Alaska Fairbanks graduate student Chloe Kotik, and NOAA's Alaska Regional Stranding Coordinator Mandy Keogh, traveled to Prince of Wales Island.



From left to right: David Bain, Mandy Keogh, Jared Towers, and Chloe Kotik (Credit: Kathy Peavey).

Over the next few days, the team of visiting biologists and community members held a community meeting and several planning meetings to work out logistics and coordinate vessels and personnel. Working with commercial and recreational fisherman, we repurposed fishing gear into a Hukilau and distributed the Oikomi pipes. On September 27th, three boats traveled to Barnes Lake and collected photos and video from a drone to confirm that the second whale was, as suspected, T049A2 - a well-known 16-year-old male who was last seen traveling with T051 on July 9th off the west coast of Vancouver Island.

The images and video showed both whales were in good body condition. Since the whales had been in Barnes Lake for at least 6 weeks by this point, their healthy condition indicated they were, in fact, finding marine mammals to forage on within the lake.



Biologists and responders from Coffman Cove gather to discuss logistics and the plan for the day (Credit: Chloe Kotik).

On September 28th, the team of ~16 boats and more than 30 Coffman Cove community members headed out to Barnes Lake. Over the course of our response that day, we employed all three of our planned tactics. Our first attempt focused around leading the whales out to sea through the northern channel. We played the vocalizations of a female killer whale over our underwater speaker, resulting in repeated vocalizations from the males as they traveled across the lake to enter the northern channel. T049A2 breached multiple times (*see front cover!*) while transiting, indicating to us that these whales were ready to leave the lake! As the whales entered the narrowing portion of the channel, the Hukilau was deployed. However, the current created by the falling tide made this challenging. The boats laden with the Oikomi pipes moved into place and began hammering, however, even with the falling tide laying the kelp down, the whales were not able to swim past this barrier. Once blocked by the kelp, the whales turned around and returned to the lake. With the kelp blocking the exit and the rapidly falling tide, there was no time for another attempt that day. Our excitement at seeing T049A2 breach and hearing their vocal responses to the playback quickly turned to disappointment as our team exited the lake.



T049A2 deterred by kelp at the entrance of the northern channel (Credit: Chloe Kotik).

However, the community of Coffman Cove was not about to give up. Once back to town, all parties involved regrouped, discussed logistics, and went back to the dry erase board.

Biologists and responders from Coffman Cove gather once again in front of the whiteboard to discuss logistics and plan for their second attempt to guide the whales out of Barnes Lake (Credit: Kathy Peavey).

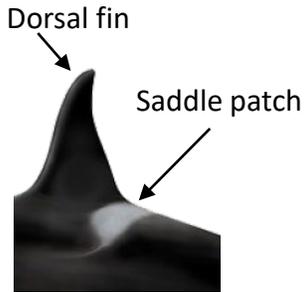


We returned to the lake the next day (September 29th). This time, our team would break into two groups, which would employ parallel approaches. One team went to the north entrance and began removing kelp with the goal of creating a gap that the whales could swim through. The second team set out with acoustic equipment to shepherd the whales through the southern channel.



How can I take the best photos for ID?

Photos of adult killer whales should focus on their dorsal fin and saddle patch – a patch of white or gray colored skin behind the dorsal fin.



The dorsal fin and saddle patch of killer whale calves are still developing, so photos of calves should also include their eyepatch – a white colored oval above and behind their eyes.



If the efforts in the southern channel didn't work, our teams would join and work together to remove kelp at the north entrance for as long as the tide allowed.

At high slack tide, a series of short recordings from female whales were played first in the lake and then in the southern channel. The hydrophone boat confirmed the killer whales were calling in response to the playbacks. We watched as both whales made their way straight across the lake and into the southern channel. As the whales passed the channel entrance, the Hukilau was deployed and the Oikomi pipes were already in position. Both whales traveled through the southern channel with the playback boat in the lead and a drone recording their progress toward open water.



Drone footage of the two killer whales following the response boat out of the southern channel (Credit: Jared Towers, MMHSRP Permit 24359).

The killer whales rounded the final corner, swimming out into Kashevarof Passage to much applause from our team! Two of our boats followed the killer whales for two hours after their exit from the lake, collecting photos and behavioral observations.



T051 and T049A2 swimming freely out into the open waters of Kashevarof Passage on Sept 29th (Credit: Chloe Kotik).

The success of this response and the safe execution of all three tactics in an area that was extremely challenging, is a testament to the community of Coffman Cove. Their local knowledge, boating skills, and dedication to seeing these two killer whales to safety made this response possible.

This response would not have been possible without photo ID data! Help Alaskan killer whales by submitting photos to Jared Towers: jrtowers@gmail.com

Our partners in this response include the community of Coffman Cove, Fisheries and Oceans Canada, and Orca Conservancy. We received additional help and information from:

- Alaska Department of Fish and Game
- U.S. Forest Service
- Washington Department of Fish and Wildlife

A link to the NOAA web story about the Barnes Lake response can be found [here](#).

Where are they now?

Jared Towers and his team got out on the water on November 23th and found T049A2 – one of the killer whales that was naturally entrapped in Barnes Lake.

T049A2 was seen traveling with a group of seven other killer whales (the T117s, T124C, and the T167s). T049A2 and T124C eventually split off from the group and headed south through Blackfish Sound into Blackney Pass, off the northeast coast of Vancouver Island.

It appears as though T049A2 and T051 have split up, which is unsurprising to researchers as T049A2 commonly spends time in the Blackfish Sound area, while T051 does not.

T051 has not yet been resighted. – keep an eye out for updates!

Did you know?

Bigg's killer whales' identification scheme is based on their matriline and birth order, with letters/numbers alternating as new generations are born.



T049A2 (right) and T124C (left) were sighted on November 23rd, swimming in Blackfish Sound British Columbia (Credit: Jared Towers, Marine mammal License #42).

Barnes Lake Killer Whale Rescue: A Poem by Doug Rhodes

It all started in mid August
In 2023
When two killer whales got stuck in Barnes Lake
And it appeared that they just couldn't get free.

This same thing happened back in 1994
And after two months, their survival was in doubt
but a group of local volunteers from POW and NOAA
succeeded in getting them out.

So this time after a few weeks in the lake
NOAA was dialed up on the phone
And a plan was developed to help get them out
If they couldn't do it on their own.

These whales were known as Transients
Or Bigg's whales as they're also known too
A 42 year old male named T051
And a teenager named T049A2.

This time NOAA worked with the USFS
And a DFO person from BC
Orca Conservancy's biologist that was here before
And even ADF&G.

There was a community meeting held at the school gym
And all of the scientists gave a little spiel
Half the town showed up on short notice
This was a really big deal!

But how to drive the whales out of the lake?
Biologists went over their methods and types
The first one was called Oikumi
Which really was just banging hammers on pipes!

The second method was called a Hukilau
And is way less invasive than the first
Just a corkline with leadline dangling from it
Somewhat in the shape of a Hawaiian skirt.

But the last method was the coolest
Using whale sound technology that's right up to date
To lead the whales out of Barnes Lake
And into the waters of Clarence Strait.

All three methods would possibly be used
And maybe all of them used together
It all depended where the whales were
And the tides, and the kelp and the weather!

Meetings were held at the local fish plant
And following the directions as instructed
Several skates of longline gear was destroyed and cut up
As a beautiful Hukilau was constructed!

And the Oikumi pipes were handed out to volunteers
And the jokes never did seem to quit
As everyone would yell out "more cowbell"
In reference to the Saturday Night Live skit!

Almost everyone with a boat was included
And once the crew on each skiff was resolved
Every boat had 2 to 5 people helping out
And most of Coffman Cove was involved!

The first day we headed out in thick fog
And at the lake entrance we sat around and drifted
Hoping we would be able to see something
And then the fog miraculously lifted!

We got into the lake and saw the whales
And tried to give them some help
Trying to get them to head out the North Entrance
But it seemed to be blocked by the kelp.

Jared played the whale sounds
And the Hukilau was deployed right behind 'em
The Oikumi banged away but the whales swam back
into the lake
And then we couldn't find them.

So with our 2 hour window gone
We had to leave in a raging current, and pout
and regroup and come up with a new plan
For the next day to try and get 'em out!



T051 and T049A2 in Barnes Lake (Credit: Jared Towers).

We decided the next day we should split up
With one group going to the north side to cut a chute
Through all the bull kelp with knives and wires
Hopefully creating a killer whale escape route.

The other group went into the south entrance
With the Hukilau and the sweet whale girl sounds
To try and coax them out that way
And into their normal whale inhabiting grounds.

We had fewer boats at the south entrance this time
And when they played the first girl orca notes
The whales turned around in the center of the lake
And started racing right for our boats.

Nick could hardly keep the whale sound boat going fast
enough
As they sped by us full speed... I mean wow!
And when the second one made it by all the boats
We yelled and let out our Hukilau!

I don't know if it did any good or not
As those whales had made up their mind
And wanted to follow those whale sounds out of the
lake
Joining up with some others of their kind!

People were excited and yelling
And some even shed an emotional tear
Then when it was announced that they were out of the
lake
Everyone let out a relieved and satisfied cheer!

The biologists plan had really worked
Even though Coffman residents had to fine tune it
And with more than 30 boats in the lake over two days...
Nobody even lost a lower unit!

That afternoon the Dog House was hoppin'
Everyone was ecstatic I think
And although everyone was responsible for the rescue
None of the biologists had to buy a drink!



And we didn't have to deal with the media
No reality shows helped get this issue resolved
And since Rescue 911 is long off the air
Even William Shatner wasn't involved!

But really there are two parts to this story
And only one is about biologists and the whale rescue
The other is how a community can come together
When they know it's the right thing to do.

So Congratulations Coffman Cove
You braved shallow water, raging currents and foggy
weather
All to help out two stuck killer whales
And show what can be accomplished together!



T051 and T049A2 swimming out of Barnes Lake (Credit: Jared Towers, MMHSRP Permit 24359).

Updates from the Alaska SeaLife Center

By:
Halley Werner &
Savannah Costner,
Animal Care Specialists

*Remember the unusually small northern fur seal rescued from Sitka in January?
Well, a lot has happened since the spring newsletter!*



The underweight fur seal, CU2301/2023006, which has now been transferred to the Mystic Aquarium in Connecticut (Credit: Alaska SeaLife Center).

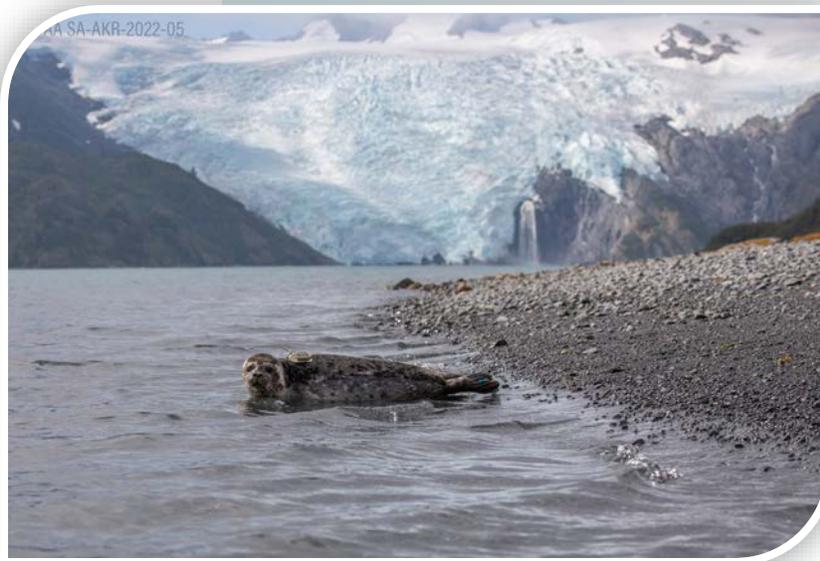
At the time the 2023 spring newsletter was published, we were all hopeful the fur seal would thrive, leading to a successful release back to the wild. She was residing in our large pre-release pool, eating well, and spending almost all of her time in the water - as fur seals should. Despite how well she seemed to be doing, she was losing weight. No matter how many calories she consumed, she was always burning more in an environment that was far more forgiving than the open ocean. After many thoughtful conference calls and careful consideration, NMFS determined that she was unlikely to survive in the wild, deeming her non-releasable due to a failure to thrive.

Now over a year old, the fur seal weighs in at 12 kg. Though she's almost doubled in size, she's still extremely small for her age. The yearling was transported to her permanent home at Connecticut's [Mystic Aquarium](#) in September, where she is thriving with a cohort of northern fur seals.

Another notable rehabilitation patient arrived on July 20th. A female harbor seal, young of the year, suffering from significant eye trauma and wounds on her head, neck, and flippers. Over time, and with regular treatments, her external wounds healed. However, staff noticed that she wasn't using sight as a normal seal would to navigate her surroundings. It was suspected that she might be blind. A visiting veterinarian ophthalmologist confirmed our suspicions - she had little to no vision and had likely been born with this condition. She was recently determined to be non-releasable by NMFS and is currently thriving at ASLC while she awaits confirmation of her permanent home. Meanwhile, she is quickly learning how to be an ambassador for her species.

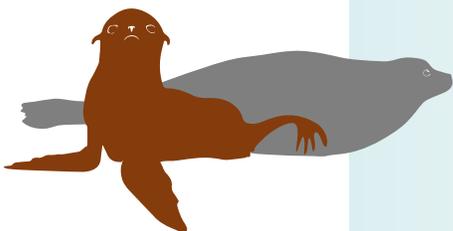
ASLC admitted nine additional harbor seal patients within just three weeks, the most in such a short period of time in our 20-year history. All nine harbor seals were successfully rehabilitated and released. This year, our chosen naming theme was potatoes.

The summer harbor seal stranding season started with the “Copper River Trio” on May 21st, with the admission of Ruffles. At 4 days old, she was hanging around fishing boats out of the Copper River Delta. The fisherman hadn’t seen any adults and it had been 24 hours since she was first sighted. On May 23rd, the rest of the trio was admitted: Curly Frie at four days old and Spud at five days old. Curly Frie was observed in the Cooper River Delta for a couple of hours by fishermen. Spud was picked up by Alaska State Troopers. All three seals were found to be moderately dehydrated and underweight. One had a urinary tract infection, and another had a small corneal ulceration in both eyes. The trio was released on August 23rd at Blackstone Bay Beach in Prince William Sound. Both Spud and Ruffles were affixed with satellite tags before release to track their post-release success.



Ruffles with her satellite tag as she is released in Blackstone Bay out of Prince William Sound (Credit: Alaska SeaLife Center).

The remaining six seals came to ASLC from Nikiski (named Darth Tater and Pierogi), Kenai (Tuber), Homer (Pringle), Bradley Lake (Belle de Fontenay), and Pilot Point (Masu), all arriving by June 10th. Their ailments included dehydration, inability to regulate body temperature, jaundice, deep wounds, emaciation, infection, and bloat. With the help of US Fish & Wildlife biologists, Masu was released in Naknek on August 29th. Two public releases were held at Kenai North Beach in September for the remaining seals. When we arrived at the beach, we were excited to be greeted by about 200 people who came out to join us for the release of three seals! It was a welcome surprise after having to hold off on public releases due to COVID-19.



ASLC's Wildlife Response Department had a busy summer stranding season, caring for 10 harbor seal pups, a northern fur seal, a one-month-old walrus calf, and three sea otter pups. Most of our animals have either been released or moved to their permanent home in human care. The winter break is well-needed as we will be back to caring for Alaska's marine wildlife before we know it.



Darth Tater being released on September 7th Kenai North Beach. Credit: Alaska SeaLife Center.



ASLC's first publicly announced release since COVID-19. Approximately 200 people were in attendance to watch Pierogi, Pringle, and Belle de Fontenay be released. Credit: Alaska SeaLife Center.

Congressional Report on Stranding Response Capabilities in the Arctic

By:
Michelle Dutro, M.S. &
Mandy Keogh, Ph.D.



Endangered Marine Mammal Species in the Arctic:

Bearded seal (Beringia DPS)*

Spotted seal (Southern DPS)*

Ringed seal (Arctic subspecies)

Steller Sea Lion
(Western DPS)*

Sperm Whale

Fin Whale

Gray Whale

Sei Whale

North Pacific Right Whale

Blue Whale

Humpback Whale
(Western North Pacific DPS,
Mexico DPS)

Bowhead Whale

*Distinct Population Segment (DPS)

After a request from Congress, we compiled a report responding to the Marine Mammal Research and Response Act (MMRRA), which provides updates to Title IV of the Marine Mammal Protection Act (MMPA). Our report seeks to outline stranding response capabilities in the Arctic by providing a summary of Arctic marine mammal stranding agreements, spatial and temporal stranding trends, oiled marine mammal response and rehabilitation capabilities, and identifying future needs to meet emerging response requirements.

Marine mammals act as ocean health sentinels - providing a barometer for current and future negative impacts to marine ecosystems. When marine mammals die and wash up on our beaches or are found floating in our waterways, that data becomes critical for identifying population-level threats like the spread of emerging and established infectious diseases (viruses, bacteria, fungi, parasites), effects of human interaction (entanglement, vessel strike, gun shots not related to legal subsistence harvest, etc), ingestion of marine debris including microplastics, marine harmful algal exposure, and impacts of changing environmental conditions. All of these compounding threats make stranding response and data tracking critical to marine mammal management. In addition to their ecological importance, some marine mammal species have critical cultural value, as the harvesting of wild resources for food, raw materials, and traditional uses is central to the lives and food security of Alaska Native peoples.

More than 20 marine mammal species rely on the Arctic marine habitat, several of which are listed as threatened or endangered under the Endangered Species Act (ESA). Additionally, stranding reports confirm the presence of marine mammals that have not commonly occurred in the Arctic, highlighting possible species range shifts due to changing environmental conditions.



A stranded Steller sea lion on Akutan Island (2023042).

Our report found that between 2008 and 2022, 1,866 confirmed strandings were reported in the Arctic, with a yearly average of 124 ± 64 (Figure 1). Most strandings occurred in the summer months and 91% of animals stranded dead. True seals (phocids) account for 47% of all strandings. Large whales (sperm whales and baleen whales) account for 20% of Arctic strandings. However, these numbers are considered a minimum estimate and do not provide a comprehensive representation of the number of strandings nor the causes of strandings within the Arctic.

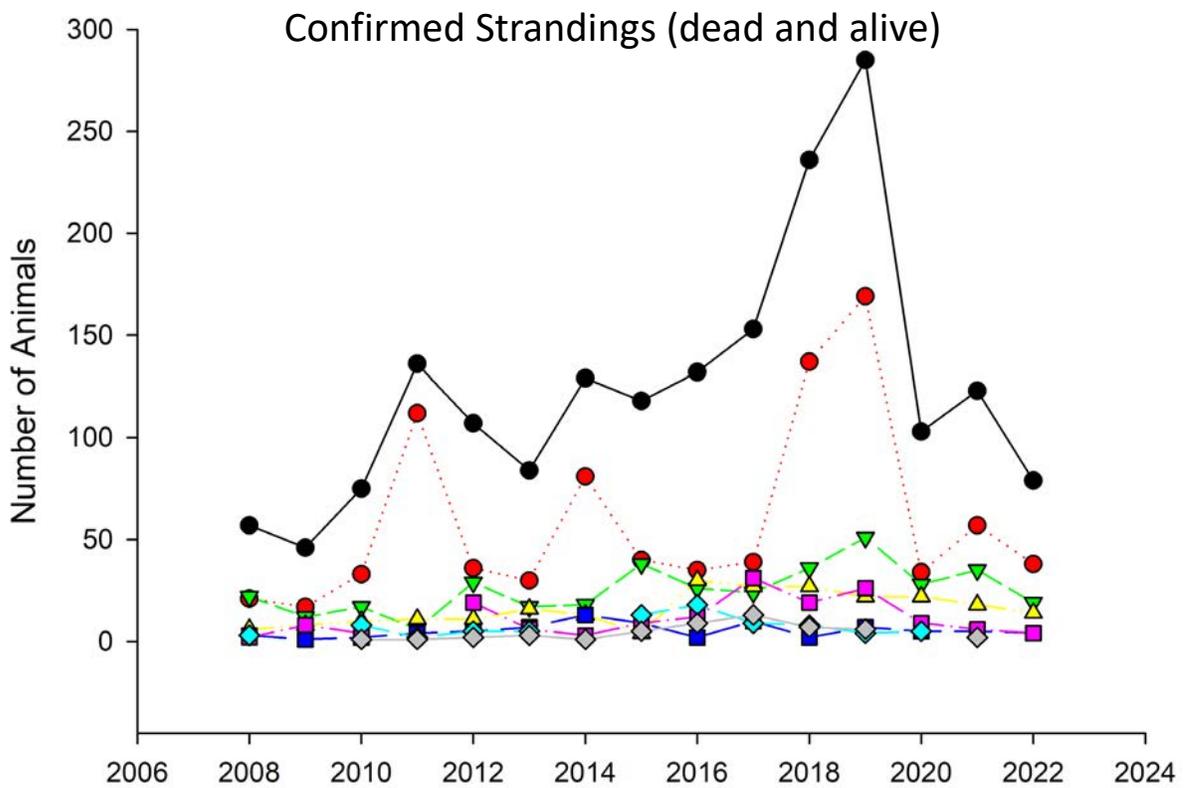
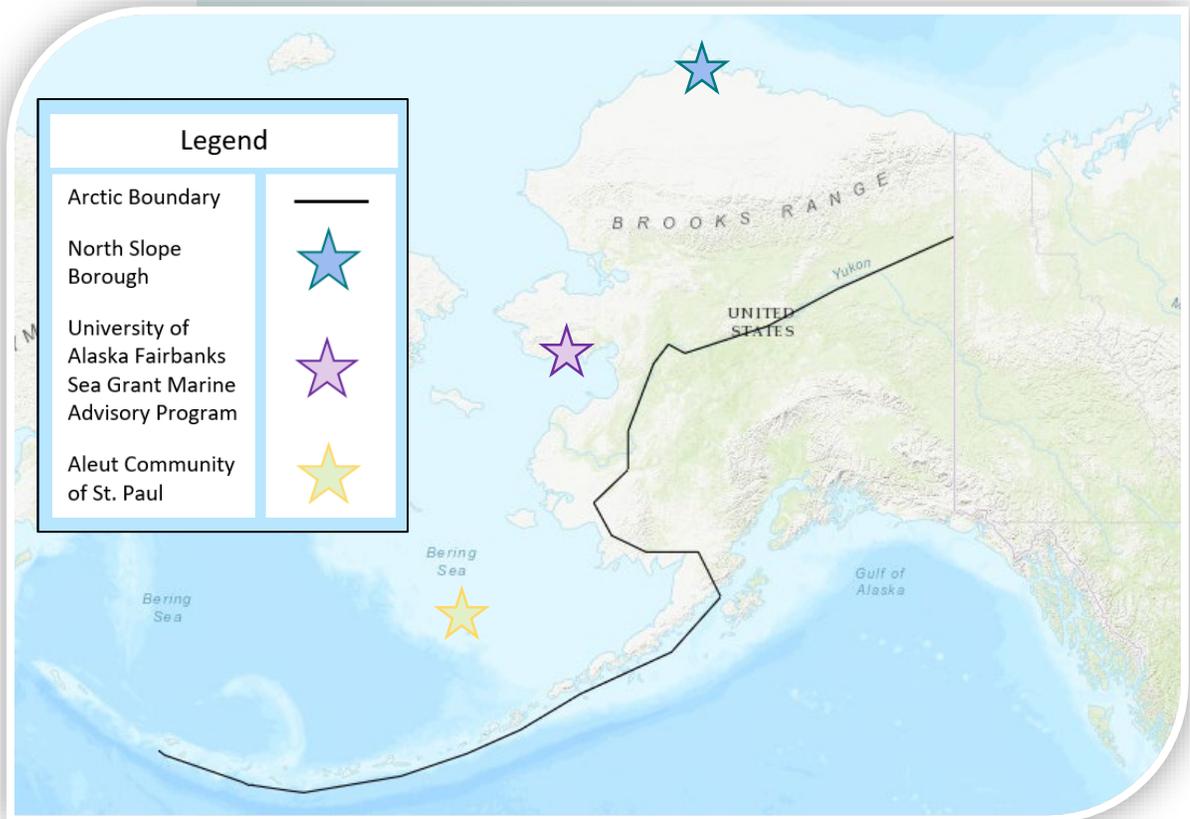


Figure 1. Confirmed reports of marine mammal strandings (dead and alive) within the Arctic by year and group (● all marine mammals, ● phocids, ▼ large whales, ▲ small cetaceans, ■ otariids, ■ unidentified cetacean, ◆ unidentified pinniped, ◆ unidentified marine mammals).

Below: Responders on St. Paul Island approach a northern fur seal (2023126) entangled in fishing gear (SA-AKR-2022-01; Permit 23896). Entanglement of pinnipeds where a response was conducted and the pinniped captured are considered strandings.





A map showing the locations of the three Stranding Agreement holders in the Arctic. For the purpose of this report, the Arctic includes all areas above the black line, which includes areas north of the Arctic Circle, north and west of the boundary formed by the Porcupine, Yukon, and Kuskokwim Rivers, the Arctic Ocean, the Beaufort, Bering, and Chukchi Seas, and the Aleutian chain (Arctic Research and Policy Act of 1984 15 U.S.C. 4111).



A Steller sea lion stranded in 2023 on Ugamak Island (2023093).

To respond to these strandings, there are three Stranding Agreement holders in the Arctic - The North Slope Borough Department of Wildlife Management, The University of Alaska Fairbanks Sea Grant Marine Advisory Program, and the Aleut Community of Saint Paul (ACSPI). These partners provide coverage on the North Slope, in the Bering and Chukchi seas, and on Saint Paul Island - this is a massive geographic coverage area that exceeds realistic response capabilities for partners with limited qualified responders. Additionally, access to resources such as response equipment, lab space, road access, reliable air transportation, tagging equipment, boats and all terrain vehicles, varies geographically in these remote areas.

In some specific cases, stranding partners including the Alaska Veterinary Pathology Services and the Alaska SeaLife Center, who are located outside the Arctic, may help, when requested by NOAA, to support stranding responses within the Arctic. Trained personnel from state and local government agencies can help fill in some of the gaps, as they may also have experience with stranding data collection, dead animal sample collection, and live animal handling.

Local community members and organizations in Arctic Alaska contribute considerable time and resources to aid the Alaska Marine Mammal Stranding Network, and their observations often serve to inform emerging events. Although these communities may not currently hold formal stranding agreements for NMFS trust species, their efforts to report marine mammal strandings and entanglements are indispensable. These communities create most of the structure for the stranding reporting in Arctic Alaska. NMFS and other agencies have benefited from subsistence hunters' observations, expertise, and the samples they have provided for various regulatory and scientific aims.

Formal co-management agreements with Alaska Native Organizations (ANOs) further bolster this framework as they encourage the exchange of information regarding the conservation, management, and utilization of marine mammals in U.S. waters in and around Alaska. Co-management agreements may involve: (1) developing marine mammal co-management structures and processes with Federal and State agencies, (2) monitoring the harvest of marine mammals for subsistence use, (3) participating in marine mammal research, and (4) collecting and analyzing data on marine mammal populations.

In the Arctic, 23 carcasses displayed evidence of fisheries interactions (such as entanglement in fisheries gear or nets) believed to have caused the stranding. These included eight harbor porpoises, 10 beluga whales, two bowhead whales, one humpback whale, and one killer whale. The eight harbor porpoises and seven of the beluga whales were caught in non-commercial salmon gillnet. Of the remaining three belugas, one was caught in a test fishery, one in a set gillnet (unknown fishery), and one beluga was caught in a commercial drift fishing net targeting salmon. The two bowhead and one humpback whale carcasses had pot gear present and were considered to be fisheries related human interaction.

Entanglements

Entanglements in fishing nets and packing bands are putting mounting pressure on Arctic marine mammals.



A subadult northern fur seal (2022132) observed on Polovina beach, St Paul Island with a neck entanglement consisting of two fishing nets (left). ACSPI biologists (SA-AKR-2022-01, Permit # 23896) captured, disentangled, and released the northern fur seal (right). The entanglement caused deep wounds completely around the neck (Credit: ACSPI).

Unusual Mortality Events

Between 2008 and 2022, there were three declared Unusual Mortality Events occurring at least partially in the Arctic.



A gray whale stranded in 2019 near Ugashik (2019135).

Between 2008 and 2022, 92 live northern fur seals and one ringed seal were captured, disentangled, and released. This is largely thanks to entanglement surveys conducted by ACSPI, which has sufficient staff to respond immediately when an entangled fur seal is observed. Entanglement material has included packing bands, debris, and fishing nets, which have been associated with severe injuries that would have been fatal without intervention.

West Coast Gray Whale UME (ongoing)

Between January 1, 2019 and September 26, 2023, 688 gray whales stranded along the west coast of North America from Mexico to Alaska, with 146 gray whale strandings occurring in Alaska and 69 of those occurring in the Arctic. Currently, the gray whale population is estimated at about 14,500 whales and shows some signs of slowly recovering from the UME.

The ongoing investigation has identified ecological changes as the leading contributor to these unusual mortalities. These changes affect the benthic and water-column-inhabiting invertebrates that gray whales feed on each summer, with the shifts in availability of these prey resources in the Arctic and sub-Arctic likely leading to gray whale malnutrition, resulting in higher rates of stranding (Moore et al. 2022). The changes in the structure and function of the Arctic ecosystem may help explain the 'boom and bust' cycles in gray populations and how future impacts of climate change may affect gray whales (Stewart et al., 2023).

Alaska Ice Seals UME (Closure pending)

From June 1, 2018 through December 31, 2019, heightened occurrence of stranded ice seals in the eastern Bering Sea (north of 60°) and eastern Chukchi Sea resulted in a UME designation. A total of 284 stranded ice seals, including 97 bearded seals (one live), 75 ringed seals (four live), 48 spotted seals (three live), and 64 unidentified seals (one live) were reported.



A ringed seal stranded in 2018 on Akutan Island (2018012).

Unprecedented ocean warming recorded in the Bering Sea during the winters of 2017 to 2018 and 2018 to 2019, which resulted in late sea ice formation and early sea ice melt, was identified as a likely contributing factor. These changes resulted in reduced prey availability by size and species, leading to malnutrition and poor body condition in the ice seals.

Alaska Pinnipeds UME 2011-2016

Starting in the spring of 2011, a minimum estimate of 657 ringed seals presented with abnormal behavior, molt abnormalities, and skin lesions throughout northern and western Alaska. The investigation identified that these clinical signs were likely due to an abnormality of the molt, but a definitive cause for the abnormal molt and the UME was not determined. Sporadic cases were seen after the UME closure including a live stranding in January 2017 on St. Paul Island in the central Bering Sea with significant hair loss and chronic skin lesions (Figure A, likely spotted seal). In 2018 a male seal with significant hair loss (Figure B) was harvested in February on the North Slope, Alaska.



A. Live stranded seal (likely a spotted seal) in January 2017 and B. A male ringed seal with significant hair loss was harvested in February 2018 on the North Slope, Alaska.

Conclusion

The Arctic is at the forefront of climate change and coastal communities within this region are already reporting the impacts of associated ecological changes. Several anthropogenic threats to marine mammals are predicted to increase within the Arctic due to climate change. These include increased rates of vessel traffic, ship strikes (Huntington et al. 2015; Kochanowicz et al. 2021; Halliday et al. 2022), oil spills, entanglement, fisheries interactions (Citta et al. 2014; George et al. 2017; George et al. 2019), and rising ocean temperatures (Frolicher et al., 2018; Prochaska et al., 2023).

In response to these mounting pressures, we identified key training areas needed to increase the Stranding Network's response capabilities in the Arctic including necropsy, live animal handling, cleaning, and care, sample collection, oil spill response, and stranding response (level A data collection) training. Additional planning resources are needed, as a Marine Mammal Disaster Response Plan specific to the Aleutian Islands and the lower Bering Sea does not yet exist - representing a critical gap in the disaster response framework.

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Stranding Network Response Highlights

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



Kate Savage pulls back the blubber layer of a well known humpback whale named Tango that stranded near Juneau (2023228).



Responders with the Aleut Community of Saint Paul Island (ACSPI) use tools called nooses to subdue a northern fur seal with a neck entanglement (2023073). Credit: Aleut Community of St. Paul Island (SA-AKR-2022-01; permit 23896).



A humpback whale carcass is scavenged by a brown bear and several bald eagles on a beach on Kodiak Island (2023002).



Responders travel by USCG helicopter to collect data from a stranded gray whale near Low Cape on Kodiak Island (2023096).

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