National Marine Fisheries Service

Alaska Region

Spring 2024 Alaska Marine Mammal Stranding Newsletter

NMFS ESA/MMPA Permit 24359
Photo credit: Sean Neilson

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

Alaska Marine Mammal Stranding and Entanglement Newsletter
Spring 2024

Page

Reminder:
The current Examiner Guide, Level A, and Human Interaction forms can be found here

Greetings from the Stranding Coordinator

By
Mandy Keogh

As of May 1st, we have had 14 confirmed stranded marine mammals in Alaska including a humpback whale in Prince William's Sound that was necropsied by the Alaska Veterinary Pathology Services and the Alaska SeaLife Center. A pilot reported and provided photos of a Baird's beaked whale carcass between Yakutat and Cordova. Each year we receive reports and photos of stranded marine mammals from pilots traveling along coastal Alaska. These reports and photos are often the only opportunity to collect information on these strandings. These reports allow stranding network members to respond when it is safe and logistically feasible. This is one reason I am really excited about a new outreach program aimed at pilots traveling around Cook Inlet. This outreach program was developed by the Alaska Department of Fish & Game…..see page 6 in this newsletter to learn more about this outreach program and to see the cool custom patch pilots will earn for completing the online training.

We held our annual Alaska Stranding Network Meeting on January 29, 2024 as an in person and virtual meeting. We had 13 presentations providing overviews of stranding and entanglement responses throughout Alaska, as well as an update on the Marine Mammal Health and Stranding Response Program by Dr. Teri Rowles, Senior Advisor for Marine Mammal Health Science.

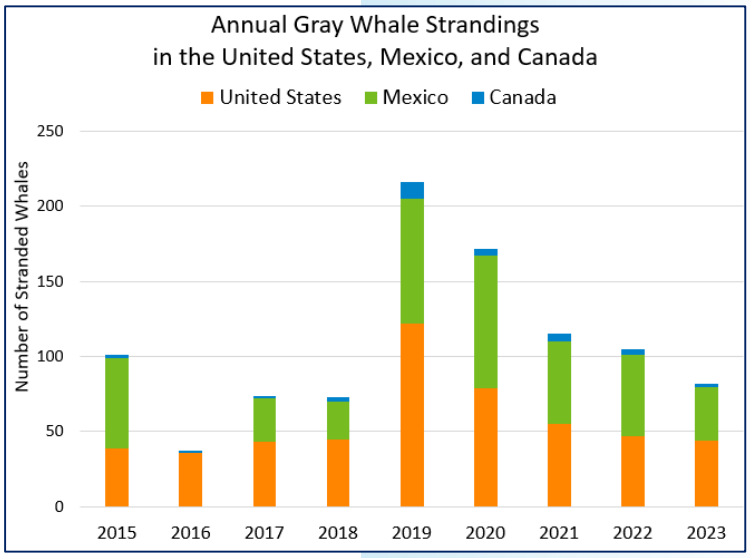
Thank You to everyone who attended and presented at the 2024 Stranding meeting in Anchorage.

Similar to last year, we had two virtual meetings (March 10th & April 18th) with Alaska Marine Mammal Stranding Network members. We provided an overview of the Alaska Region Stranding Handbook and updates on the closure of the gray whale Unusual Mortality Event. We reviewed the current research sample requests and protocols, and provided updates on sampling and personal protective equipment for stranded marine mammals in general and specifically for avian influenza. We provided an update on several tasks the Marine Mammal Health and Stranding Response Program has been developing, including visualization of stranding data through a portal that will be publically available.

Reach out to me (mandy.Keogh@noaa.gov) for information on sampling protocols or supplies, requested research samples, or any questions on marine mammal strandings in Alaska.

Gray whale UME Closed

NOAA Fisheries announced the closure of the 2019-2023 Eastern North Pacific Gray Whale Unusual Mortality Event (UME), acting on a recommendation from the NOAA Working Group on Marine Mammal UMEs. The increased stranding rate that triggered the UME declaration is no longer occurring. Stranding rates have returned to normal and expected levels, and the prevalence of thin live or thin dead whales has decreased.



The Investigative Team concluded that the preliminary cause of the UME was localized ecosystem changes in the whale's sub-Arctic and Arctic feeding areas that led to changes in food, malnutrition, decreased birth rates, and increased mortality, all documented during the UME.

The UME involved 690 gray whale strandings. Strandings occurred from Alaska to Mexico along the west coast of North America, including in the whales' wintering, migratory, and feeding areas. The UME occurred from December 17, 2018 through November 9, 2023, with peak strandings occurring between December 17, 2018, and December 31, 2020.

You can find more details on the Gray Whale UME here.

Barnes Lake killer whale sighting!

T051 was observed off of Victoria, Canada on April 6, 2024.

Both Bigg's killer whales (T049A and T051) that were entrapped in Barnes Lake on Prince of Wales Island in August-September 2023 were sighted swimming with other killer whales since the stranding response efforts lead them out of the lake.

Photo Credit: Mark Malleson

It's pupping season!!

As a reminder to the public, we will once again conduct outreach requesting the public leave seal pups on the beach and report them to the stranding hotline if the pup seems distressed or abandoned. We are planning public service announcements in Nome, Anchorage, and Southeast Alaska, as well as social media posts featuring our AK seal pups (see below).

Stranded Beluga Reporting – A 'Pilot' Project

The Alaska Department of Fish and Game (ADF&G) is partnering with NOAA Fisheries to kick off an exciting stranding reporter training initiative for local pilots flying in Cook Inlet. This project is designed to improve the stranding reporting and carcass recovery of Cook Inlet belugas (CIB) by addressing pilots who fly regularly throughout the inlet. This project is funded by a Competitive State Wildlife Grant – the first award of its kind to Alaska! - and with in-kind support and partnership from NMFS Alaska Region Protected Resource Division.

By
Shelby Yahn
Wildlife Biologist
Alaska Department of
Fish & Game

The pilot e-training will be readily available on the ADF&G webpage and accessible through a custom QR code when scanned with a smart phone. The training covers the CIB population background, why public stranding reports matter, laws protecting marine mammals, and what information to give to the Stranding Network Hotline (*877-925-7773*). Pilots who successfully pass a short quiz will receive a custom flight suit patch to commemorate their efforts!

ADF&G and NOAA Fisheries were in Palmer May 4-5 to promote the new training initiative at The Great Alaska Aviation Gathering. The Alaska Wildlife Conservation Center joined ADF&G and NOAA Fisheries at our booth to promote the e-training, offer fun crafts for kids, and distribute stranding outreach materials. Betty Beluga even made an appearance!

2023 Stranding Summary

By
Mandy Keogh

All data was taken from National Stranding Database and are current as of March 7, 2024.

The stranding numbers do not include free swimming, entangled large whales, or entangled pinnipeds with no response.

In 2023, the stranding network received 298 confirmed reports of stranded marine mammals in Alaska. The first stranding in 2023 occurred on January 2nd and was a Steller sea lion on Kodiak Island and the last stranding was on December 22nd and was a Steller sea lion in Juneau. Strandings peaked during the summer, with most reports occurring between May and October (Figure 1).

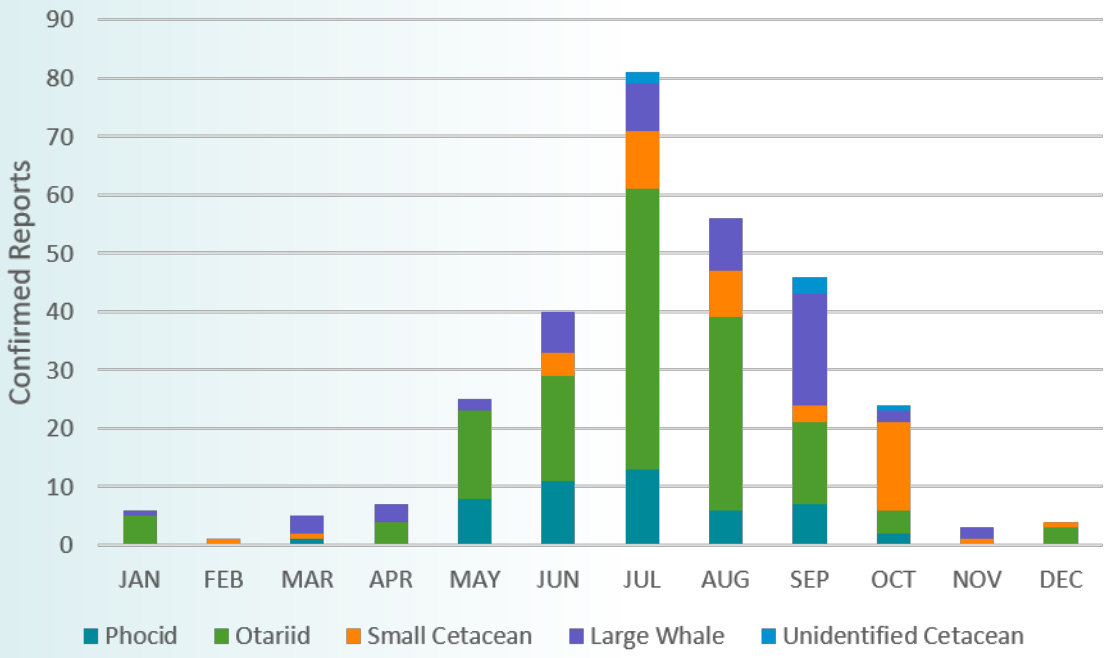


Figure 1. Confirmed stranding reports in 2023 by month and taxa group.

Of the confirmed reports in 2023 (Table 1), 64% were pinnipeds, 14.8% were small cetaceans, and 18.8% were large whales (sperm and baleen whales). Sometimes carcasses were too decomposed to classify animals as small cetaceans or large whales, or the location of the stranded animal limits access to the carcass. These animals are categorized as "unidentified cetacean."

The most frequently stranded pinniped species were Steller sea lions (85), northern fur seal (58), and harbor seals (36). Nearly all stranded northern fur seals (57) were captured and disentangled by the Aleut Community of St Paul and/or NMFS Protected Resources Division. These disentanglement responses represent most of the stranding reports in the Bering Sea (Figure 2).

For large whales, the most frequently reported species were humpback whales (28), gray whales (11), bowhead whales (4) and fin whales (4). Beluga whales (26) were the most commonly reported small cetaceans, including Cook Inlet beluga whales (7 live, 13 dead) followed by harbor porpoises (8).

This summary of strandings in Alaska in 2023 provides a minimum estimate of stranded animals and does not represent a comprehensive understanding of the occurrence or causes of strandings in Alaska.

The was one mass stranding with 7 live Cook Inlet belugas reported by a private pilot. Their report allowed the Cook Inlet Beluga Photo-ID Program to capture photos and observations from shore until the tide came in and the belugas refloated.

Table 1. Confirmed stranding reports of marine mammal groups in 2023.

	Confirmed Stranding Reports 2023
Otariids (sea lions and fur seals)	144
Phocids (true seals)	48
Small Cetaceans	44
Large Whales (sperm whale and baleen whale)	56
Unidentified Cetacean	6
Unidentified Marine Mammal	-

2023100, harbor porpoise, Seldovia AVPS SA-AKR-2023-02

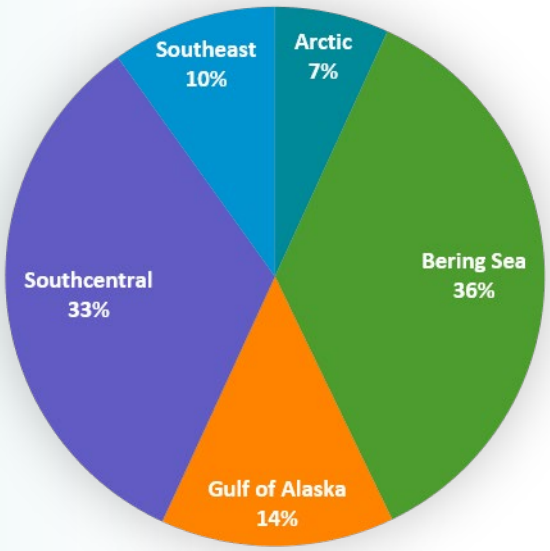


Figure 2. Proportion of confirmed stranding reports by geographic region for 2023.

Alaska Student Chapter of the Society for Marine Mammalogy

The Alaska Student Chapter of the Society for Marine Mammalogy (AKSKM) is an Alaska-wide cooperative student organization dedicated to supporting the educational and professional development of early-career marine mammal researchers. AKSMM holds monthly meetings, guest speaker seminars, fundraisers, and social events at our hubs in Fairbanks, Juneau, and Anchorage, with virtual connectivity for remote participants. We also work to keep our members informed of internships, career opportunities, professional development workshops, fellowships, and grant availability across Alaska and beyond.

Interested in joining our network of professional contacts? Have information about an opportunity to pass on to our members? Find us at https://smmalaskastudent.wixsite.com/home/ , on Instagram (@smm_alaska), or at smm_alaskastudentchapter@gmail.com to learn more!

Inferred mass mortality of humpback whales in Southeast Alaska since the NE Pacific marine heatwave

By
Janet Neilson,
Chris Gabriele

Glacier Bay National Park
Humpback Whale
Monitoring Program

It has now been over seven years since the 2014-2016 Northeast Pacific marine heatwave (PMH) subsided and many humpback whales in Southeast Alaska that were alive before the heatwave remain missing. A burning question has been – did these whales just shift their distribution, or are they dead? The PMH caused widespread declines in forage fish abundance and quality (Arimitsu et al. 2021), and we observed many emaciated whales during the "heatwave years" (Neilson et al. 2022). Subsequent analyses revealed abrupt declines in humpback whale survival and reproductive success (Gabriele et al. 2022) and a 34% decline in the humpback whale population in Hawai'i (Cheeseman et al. 2024). The majority of humpback whales in Southeast Alaska migrate to Hawai'i in the winter, yet the number of humpback whale strandings reported in Southeast Alaska, British Columbia, and Hawai'i, during and after the PMH, was elevated but not all that high. In 2015-2016, an Unusual Mortality Event was declared for large whales in the Gulf of Alaska (Alaska and British Columbia Large Whale Unusual Mortality Event Summary Report | NOAA Fisheries), however this event primarily involved fin whales around Kodiak and in the western Gulf of Alaska. Humpback whales in Southeast Alaska were not part of the UME, but in hindsight, should they have been?

Beginning last fall, we increased our efforts to determine the fate of the whales missing from Glacier Bay/Icy Strait by casting a wider search net for them. Evidence is mounting that a mass mortality event involving Southeast Alaska's humpback whales went undetected due to a lack of observed strandings. We combined the park's photo ID sighting records for 266 whales, from 1985-2023, with additional photo ID records of these whales archived in a collaborative database with the University of Alaska Southeast (www.alaskahumpbacks.org) and compiled on www.Happywhale.com. Combining data from all these sources allowed us to generate detailed sighting histories for each whale throughout their annual range, adding additional sightings from Alaska, Hawai'i, and Mexico. While humpback whales disperse to many different areas in Alaska in the spring, summer, and fall to feed, in the winter they come together to breed in Hawai'i and Mexico. One striking result from our analysis is that the whales missing from Southeast Alaska are also missing from the wintering areas; in other words, they are not showing up *anywhere*. Meanwhile, whales that we know are still alive are being seen regularly since the PMH, including in the winter. NOAA statistician Jacek Maselko recently joined our effort to analyze these data and our goal is to write a manuscript in 2024 for a peer-reviewed publication.

Stay tuned for more results from this sobering but important analysis.

Male humpback whale #166 returned to Glacier Bay/Icy Strait every summer for 30 consecutive years. He disappeared in 2015 at the height of the Northeast Pacific marine heatwave and is now one of many whales presumed to be dead.
Photo credit: *NPS/J. Neilson.*

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Where are they now?

The journeys of two rehabilitated Pacific harbor seals

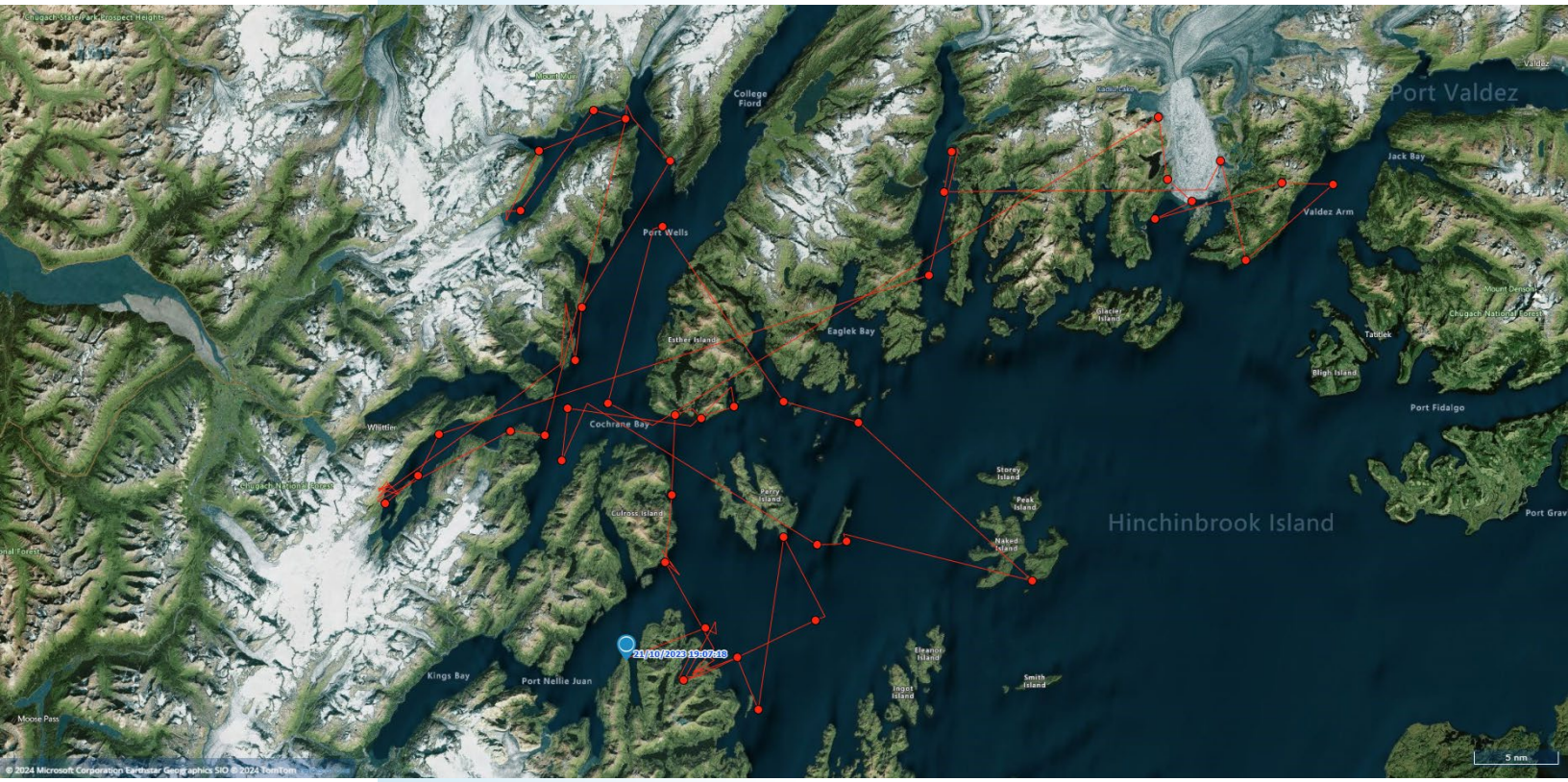
By
Halley Werner,
Savannah Costner
Animal Care Specialists

Spud and Ruffles, two harbor seal pups rehabilitated at the Alaska SeaLife Center last summer, were released in August with satellite tags affixed to their fur. After receiving months of pinned locations, the data has been compiled into maps which show us their individual journeys.

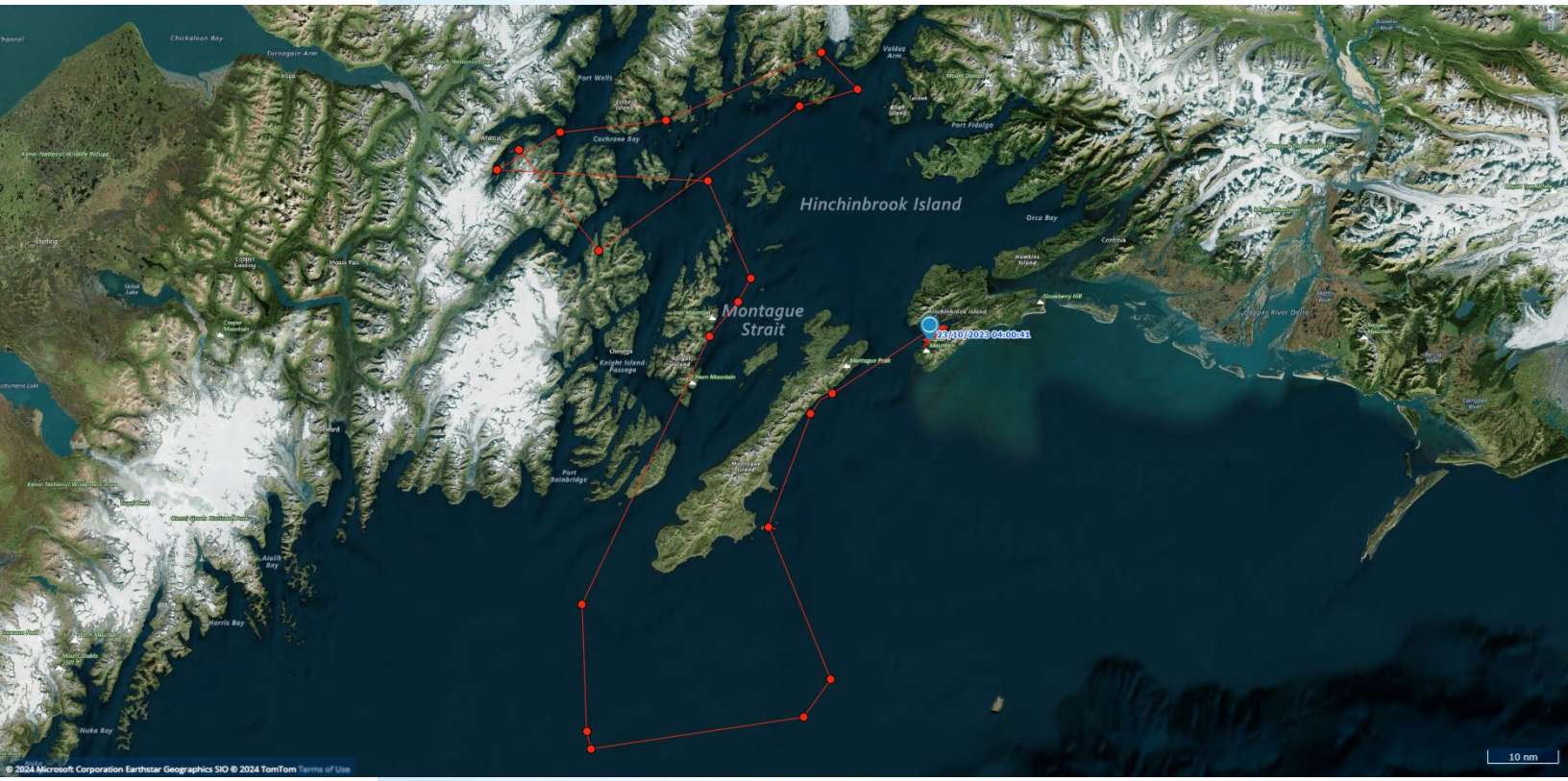
PV2302 “Ruffles” (left) and PV2304 “Spud” (right) were both found underweight and dehydrated, after being separated from their mothers at just a few days old. Photo Credit: ASLC (SA-AKR-2022-05).

PV2304 release: Spud pauses for a moment before entering the waters of Prince William Sound.

PV2302 release: Ruffles races to the water on release day!



Ruffles (PV2302) sat map above & Spud (PV2304) sat map below: Released back to the ocean on August 23, 2023, Spud and Ruffles separated ways and embarked on their own journeys as shown by their satellite tag maps. Ruffles chose to stay in the protected waters of Prince William Sound, while Spud explored into the Gulf of Alaska.



UNIVERSITY of ALASKA SOUTHEAST
SITKA CAMPUS

Stranding Partner Highlight: University of Alaska Southeast - Sitka

By
Michelle Dutro

After splashing down into Hoonah Sound on the south side of Chichagof Island, a float plane loaded with stranding responders and sampling equipment motored closer to shore. The team onboard – Alex McCarrel (Alaska Department of Fish & Game; ADF&G) and Ted Hasty (NOAA Office of Law Enforcement; OLE)– was led by Dr. Lauren Wild, Stranding coordinator and Assistant Professor at University of Alaska Southeast (UAS) Sitka campus. The Alaska Whale Foundation (AWF), based in Baranof Warm Springs, sent a team to assist by skiff consisting of Dana Bloch, Annie Bartlett, and Jess McCoppin. Awaiting the group on shore lay the carcass of an adult male humpback whale (2023243). Stretched out on its back in the tidal zone, the animal's tongue was inflated and evidence of predation from bears and birds pock marked the body. Fortunately, the whale's tail remained in good condition – the markings on the underside of the fluke were clear and well preserved. AWF team members launched a drone and were able to capture high quality aerial images of the tail and carcass so the individual could be cross referenced with the local humpback whale photo ID catalogs.

The stranding response team – Dr. Lauren Wild, Alex McCarrel (ADF&G), Ted Hasty (NOAA OLE), Dana Bloch (AWF), and two AWF volunteers – begin to necropsy the humpback carcass. This drone imagery produced a clear photo of the whale's tail fluke, enabling the team to identify this individual as SEAK-562. Photo credit: UAS/ Lauren Wild (SA-AKR-2022-03).

The humpback was identified as Finger (aka Epimeletic; SEAK-562), a well-known adult male last sighted on July 29, 2023 in Frederick Sound (Happywhale). Finger was a known bubble-feeder – a feeding strategy wherein an individual or a group of whales emits a curtain of bubbles to herd schooling prey. Bubble-feeding configurations and behavior vary among individuals and regions (Wiley et al., 2011) – with only certain individuals known to employ this technique in Alaskan waters. Finger was part of a cooperative feeding group that AWF had monitored for years, making the death of this whale an unfortunate, yet valuable occurrence. The baleen collected from Finger will be used for dietary time series research. Dr. Wild and her team collected skin, blubber, and live barnacles from the rostrum. The whale's eye was also collected and sent to a lab, joining a large collection of eyes from other whales. They will be used for aging. Contributing data to these larger research efforts is one of the elements she likes most about conducting necropsies.

> “…we appreciate people in the community for having the passion and interest to participate…”
>
> - Dr. Wild

Originally led by UAS Professor Jan Straley, until Dr. Wild took over in 2022, UAS has been a stranding partner for 16 years – and 2023 was a particularly busy year. In addition to stranding responses, UAS Sitka also conducted a Large Whale Entanglement Response (LWER) training, completed dunker training, held an intensive rearticulation course, and worked with students at Sitka High School to rearticulate a juvenile humpback whale skeleton.

The LWER training was led by Ed Lyman, Natural Resource Specialist and Acting Regional Large Whale Entanglement Response Coordinator under NOAA’s Marine Mammal Health and Stranding Response Program (MMHSRP). The training was a collaboration between NOAA’s Protected Resources Division, NOAA’s OLE, and crew of volunteers – some of whom have activley assisted with stranding and entanglement efforts in the Sitka area for years.

"We really appreciate all our volunteers,” Wild said. “None of us are getting paid to go out and respond to these animals, or participate in the training. So we appreciate people in the community for having the passion and interest to participate in these things and take time out of their schedules to get trained up and help."

Ellen Chenoweth (left), Research Faculty with UAF based in Sitka, practices tossing a throwing grapple designed to hook onto entangling line. This would enable responders to attach a telemetry package used to track entangled whales for further monitoring and response efforts. Angela Bowers (center), Assistant Professor at UAS, offers support while Ed Lyman (right) skippers and provides instruction. Photo credit: NOAA/Ed Lyman.

Remember the Sitka High School Humpback Rearticulation Project?

As you may remember from our Winter 2023 Newsletter, students at Sitka High School are working to rearticulate the skeleton of a juvenile humpback whale that stranded in March of 2023. Over the winter, students continued work boiling the bones and soaking them in ammonia and hydrogen peroxide. They are now laying out the skeleton to identify which bones are missing so they can make a plan to re-create those bones out of ceramic, wood, and glasswork. Dr. Wild says she hopes to unveil the completed skeleton at Sitka's Whale Fest in November 2024.

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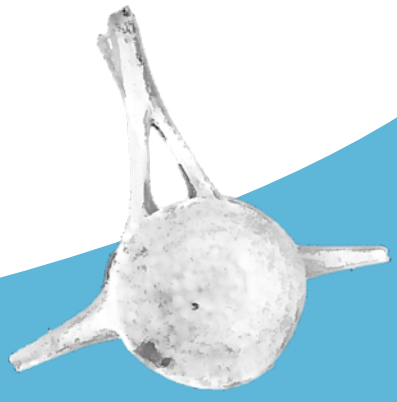


Focused humpback whale Photo-ID effort used to document lethal and sub-lethal human interactions

The following abstract was part of a poster presentation at the 2024 Alaska Marine Science Symposium

By
Suzie Teerlink, Heidi Pearson, John Moran, Shannon Atkinson, and Sadie Wright.

Sublethal human interactions with large marine mammals can be difficult to assess given the challenges of limited reporting and resighting opportunities. A study of Juneau-area humpback whales has provided a unique opportunity to collect regular sightings of a relatively small subset of known individuals that have high site fidelity to summer feeding areas near Juneau (approx. 50 individual whales). Through approximately weekly photo-identification surveys during Summers 2020-2023, we documented 10 unique humpback whales displaying evidence of human interaction. Our survey effort yielded 79 sightings of these individuals, of which seven individuals were observed before and after the human interaction.

Sub-adult female, “Helix” (JF-123), displayed a new injury consistent with vessel strike from the skeg and propeller of a small craft, first documented on 7/31/21. This whale almost never shows flukes and could potentially have more associated injuries preventing fluking. Re-sights in Juneau in subsequent years (2022 and 2023) suggest that she recovered enough to feed and survive. Photo Credit: UAS/ Heidi Pearson (NMFS permit 20648).

Our survey effort yielded 79 sightings of these individuals, of which seven individuals were observed before and after the human interaction. We documented several sublethal (and one lethal) human interactions. Two whales were entangled in fishing nets in 2020, one of which was a calf. Three animals with fresh vessel strike injuries were observed in 2021 and one calf that survived a known entanglement was observed in 2022. Two whales had four vessel strike injuries (one of which was fatal) and two entangled animals were observed in 2023. The surveys enabled us to assess the long-term impacts to individual whales, the majority (7 out of 10) of which were young (6 calves and 1 juvenile).

Humpback whale calf, "Tango" (2023 calf of SEAK-1879). His carcass washed ashore on Hump Island on 8/25/23 with injuries consistent with a vessel and propeller strike from a large ship. Earlier in the season, he was observed with injuries from three previous strikes from small vessels. Photo Credit: NOAA/ John Moran prior to the necropsy.

The 2023 calf of the well-known Juneau whale SEAK-1447 (“Juneauite”) was entangled in a recreational crab fishing ring. A NOAA Large Whale Entanglement Response (LWER) team cut gear from the animal. Later survey efforts confirmed the calf was gear free. Interestingly, two other of Juneauite’s calves were entangled and successfully freed by NOAA-trained LWER teams (2005 and 2016). Photo Credit: NOAA/Suzie Teerlink (NOAA permit #24359).

SEAK-5057, “Manu”, was subject to a life-threatening entanglement from 7/3/23-7/21/23. Boaters watched this whale get entangled in a recreational crab pot near Juneau and a NOAA-authorized LWER team evaluated that entanglement and affixed a telemetry buoy (large green buoy in photo) to the entangling materials later the same day. The whale left the area and was tracked via satellite, and subsequent opportunistic encounters for the next 17 days. However, he evaded additional disentanglement efforts. Fortunately, the gear parted on 7/21/23; Manu swam free and the gear was recovered and analyzed. Manu was re-sighted on 10/27/23 by the Alaska Whale Foundation and appeared healthy and entanglement free. Photo Credit: NOAA/Suzie Teerlink. LWER efforts were authorized under NOAA permit: 24359.

Lessons learned from connecting individual outcomes with known reports of human interactions are useful in understanding the rates of sublethal human interactions and for providing perspective in geographic areas where survey and photo ID effort is not as comprehensive. Juneau is the largest community in Southeast Alaska and home to what is arguably the largest whale watching fleet in the world. Consequently, Juneau has high levels of vessel traffic and fishing pressure that likely contribute to higher levels of human interactions on marine wildlife, including humpback whales. There are likely higher levels of reporting, surveying, and documentation of human interactions. We hope that by studying these known cases, we can help to mitigate future impacts to this precious marine resource.

Museum of the North

The More You Look

The Museum of the North (UAMN) has a weekly podcast 'The More You Look.' The February 27th episode "Humpback Unearthed' follows staff and students from UAMN research collections as they excavate the skeleton of a humpback whale (2016096, MN1602, UAM 133218) in September 2023, six years after burying the carcass. The whale originally washed ashore near Hope on June 28, 2016 and was left on the beach once the Alaska SeaLife Center and the Alaska Veterinary Pathology Services completed the necropsy. The whale re-floated and landed on the Anchorage Coastal Wildlife Refuge, along north Turnagain Arm. Working with Friends of the Anchorage Coastal Wildlife Refuge, Alaska Department Fish & Game, and others, the UAMN staff salvaged and carried (or flew by helicopter) the bones to the Kincaid sand dunes, where they were buried to let nature take its course.

Learn more about this huge effort and next steps for this skeleton by listening to the 'The More You Look' podcast and The Wildlife Society's 2017 article

An adult male (2016096, MN1602, UAM 133218) ashore in June 2016 near Hope, AK.

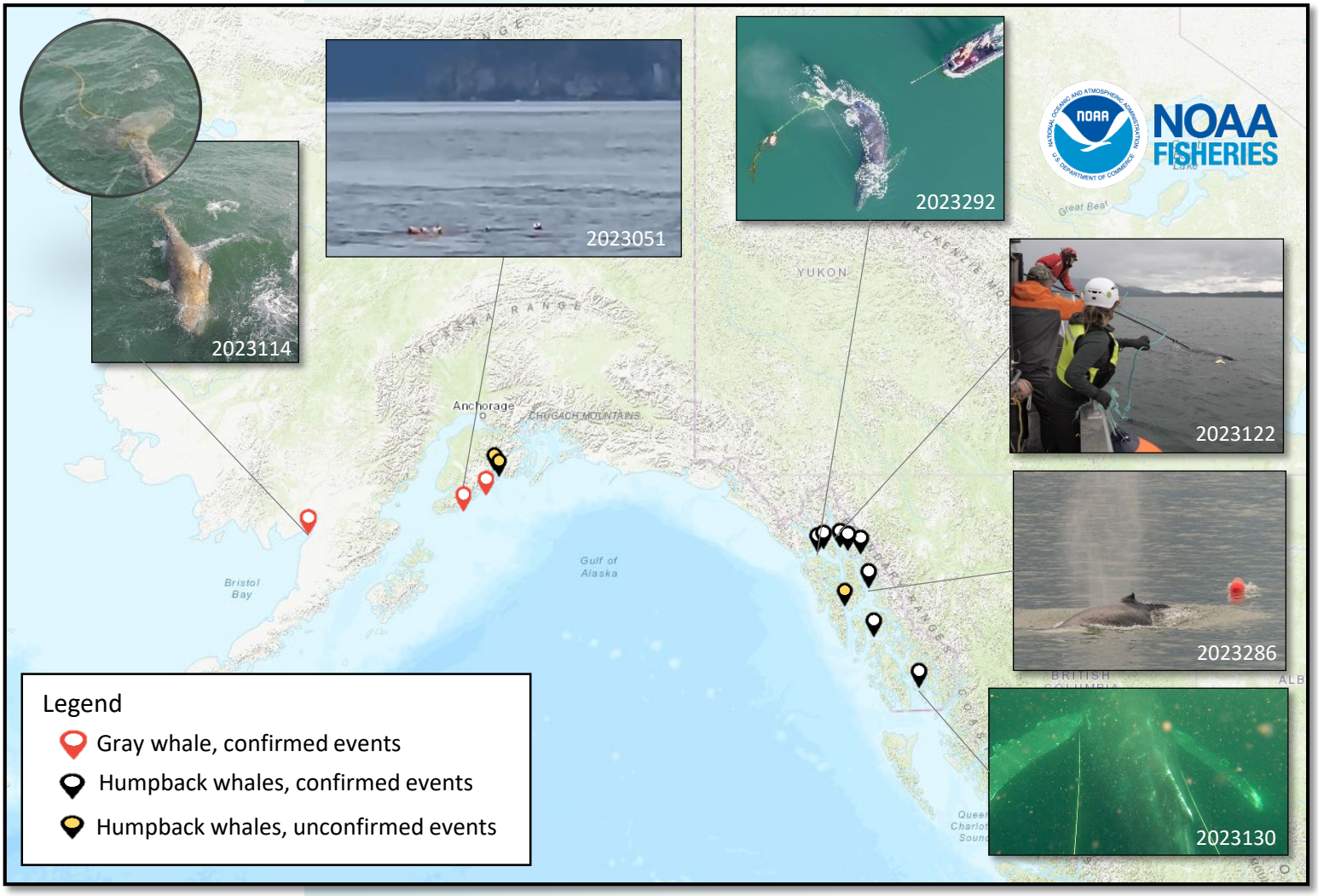
The whale in July 2016 after coming ashore at the Anchorage Coastal Wildlife Refuge in July 2016

UAMN excavates the whale bones six years after burying the carcass in sand. Photo Credit: UAMN/Aren Gunderson.

2023 Large Whale Entanglement Summary

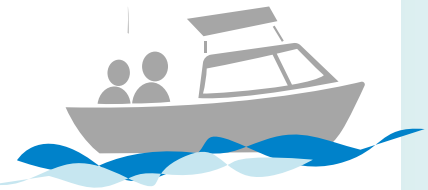
By
Michelle Dutro

Eleven confirmed live gray and humpback whale entanglements were reported to the NOAA Alaska Large Whale Entanglement Response Program in 2023. An additional three unconfirmed entanglement reports were also submitted, however the presence of entangling material could not be confirmed, was not observed by responders, or was determined to be organic material (kelp). Of the confirmed reports, humpback whales were the most common species to be entangled (n=8), followed by gray whales (n=3). All unconfirmed reports involved humpback whales (n=3). This summary includes only baleen whales reported to the NOAA Large Whale Entanglement Response Program, and does not include Federal Fisheries Observer reports. The location where each entangled whale was first reported appears on the map below, along with species and whether the report was confirmed.



A map displaying the location and species of the confirmed (n=11) and unconfirmed (n=3) large whale entanglements reported to the Alaska Stranding Network in 2023.

Report Entanglements to the NOAA Fisheries Stranding & Entanglement Hotline! (877) 925-7773

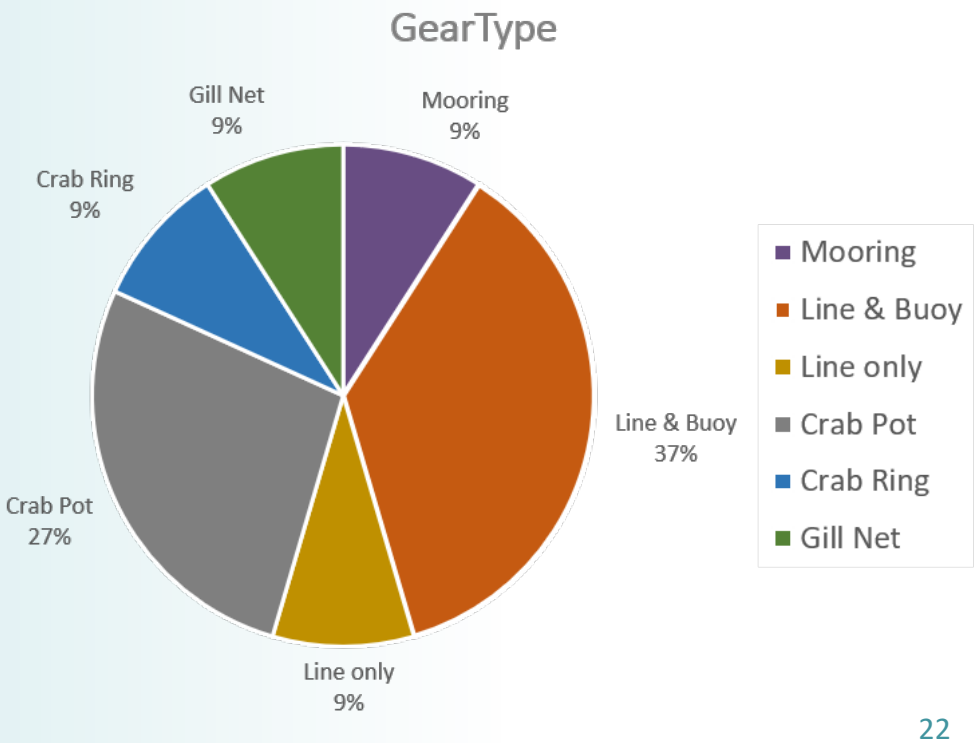


Although on-water disentanglement efforts were not possible in all cases due to logistical hurdles (e.g., remote locations, weather, or uncertainty of the location of the animal), NOAA responders and partners were able to fully disentangle three humpback whales and partially disentangle two more. In one case, responders with Glacier Bay Park & Preserve determined that a humpback whale self-released from its entanglement. In another case, an Alaska Whale Foundation response team used Uncrewed Aircraft System (UAS) imagery to assess a humpback whale reported to be bleeding from an entanglement and determined the animal was most likely to be defecating pink-colored fecal matter rather than bleeding.

Responses resulting in partial or complete disentanglement were thoroughly documented, producing valuable records for NOAA responders to learn more about entanglement configurations, causes, mitigation, and response techniques. This documentation is also crucial to outreach and education efforts. You can read more about several of the disentanglement responses through the NOAA webstories on well-known humpback whales Herbert and SEAK-5490, as well as an article in the 2023 Winter Stranding Newsletter on the disentanglement of Manu. The Metlakatla Indian Community Department of Fish and Wildlife (DFW) authorized response team conducted a successful full disentanglement of a humpback whale in Blank Inlet. Photos and video are available through a webstory, found here.

Gear Type

The material most commonly observed entangling large whales in Alaska in 2023 was line and buoy (n=4). Crab pot entanglements were the second most common identified entangling gear (n=3), and it is possible that some entanglements identified as line and buoy entanglements also originated from pot gear. Other gear observed entangling large whales consisted of mooring line (n=1), other miscellaneous line (n=1), gillnet (n=1), and a crab ring (n=1).



Entanglement Highlight

On June 1, 2023, a whale was reported dragging line with five yellow and orange buoys, swimming southwest in the Kenai Fjords off Ragged Island. The Stranding Network received the report along with a video showing the buoys. However, the entangled whale could not be seen in the video, so the species was considered unknown. The Alaska SeaLife Center notified mariners and partners in the area, and NOAA notified the Kenai Fjords Park Service, however no additional sightings were reported.

A month and a half later, on July 17, 2023, Matt Van Daele, a Tribal Biologist with the Sun'aq Tribe of Kodiak, and his team observed a dead gray whale stranded on a beach on south Kodiak Island during a dedicated USCG-supported carcass survey associated with the 2019-2023 gray whale Unusual Mortality Event (UME)*.

After completing their primary and secondary survey routes, the survey team aboard the MH-60T Jayhawk began flying the southwest coastline of Kodiak. This was a tertiary route, only surveyed when time allowed for the area to be included in the survey effort. Washed ashore just north of Low Cape, Van Daele's crew photographed the decomposed body of a male gray whale. The carcass appeared to be deflated and partially mummified, nasal bones and the mandibles were completely broken free of the head, and seven bears were observed on and immediately around the carcass. Even more striking was the line wrapped tightly around the whale's peduncle, another line wrapped around the midsection, and the five yellow and orange buoys attached to the lines. Photo comparisons confirmed this gear was a match with the gear observed on the whale seen off Ragged Island – some 250 miles northeast.

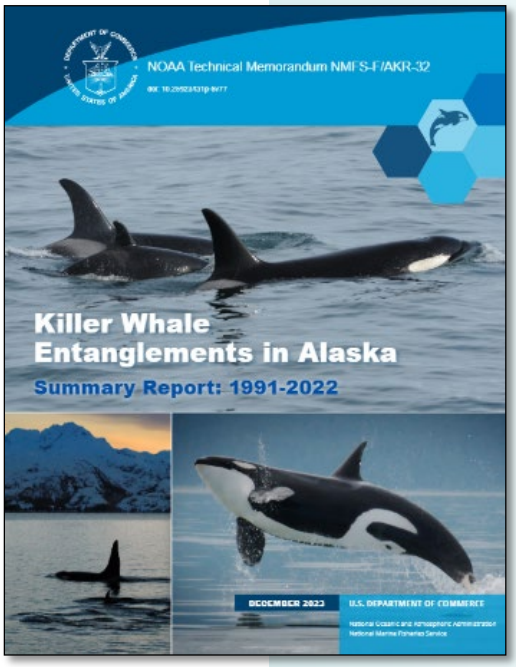
The severely decomposed body of a male gray whale (2023051) found by Van Daele's crew on July 17, 2023, on a beach on south Kodiak. Line and buoys can be seen wrapped tightly around the whale's tail stock and more loosely around the mid-body. Photo Credit: Sun'aq Tribe of Kodiak/ Matt Van Daele (SA-AKR-2023-03).

Due to a late and weak salmon return, Van Daele said the bears scavenging the carcass were likely hungry and in search of other food resources. The crew knew they couldn't approach the carcass safely, and didn't want to disturb to the bears. Unfortunately, a severe storm curtailed plans to return to the carcass a few days later, and by the time they flew again, the carcass had washed away.

This case offers a rare opportunity to understand the outcome, albeit unfortunate, of entanglement for this gray whale. We are not always able to document the outcome of free swimming entangled whales, but in this instance, public reporting and documentation combined with dedicated research surveys allowed the puzzle pieces to come together.

Unfortunately, buoy markings were illegible, and NOAA has been unable to identify the gear, its origin, or the associated fishery. Any information about this entanglement can be reported to the Alaska Stranding Hotline at (877) 925-7773.

Note: Killer Whale Entanglements



Early in 2023, NOAA began work compiling a report on all known killer whale entanglements in Alaska. The final technical memorandum was published in December 2023, and summarizes all killer whale entanglements in Alaska from 1991-2022. Killer whale bycatch in fishing gear had been pushed into the spotlight more recently after an unusually high number of killer whale bycatch reports in the summer of 2023, with 10 killer whales confirmed incidentally caught in commercial fishing gear (primarily reported by the Federal Fisheries Observer program) and one killer whale incidentally caught during a NMFS research longline survey. With this recent unprecedented spike in killer whale bycatch, a historic perspective on what is "normal" is even more important. You can learn more about the 2023 reports in a NOAA webstory, found here. These reports, along with the technical memorandum, made it clear that the number of killer whales caught in fishing gear in Alaska in 2023 was much higher than in previous years.

SEAK-5490 Propeller Scar

Ship strikes are a growing stressor contributing to cetacean injury and mortality around the world, and these incidents are often difficult to document (Neilson et al., 2012). This past fall, photos captured during the partial disentanglement of SEAK-5490 revealed a healing scar on the entangled whale consistent with the laceration characteristics of a propeller strike (Hill et al., 2017). This parallel pattern of evenly spaced incisions can be clearly seen across the juvenile's back, forward of the dorsal fin.

This young humpback whale was previously observed and photographed without the propeller injury during a survey conducted by the Glacier Bay National Park & Preserve Humpback Whale Monitoring Program just 56 days prior (on August 15th) to the October 11th disentanglement effort. Based on the humpback whale wound healing states as defined in Hill et al. (2017), this injury seems to be in the final stages of healing - the wound appears closed and displays no pink or raw tissue. While the wounds of dolphins and whales are known to heal quite quickly (Bruce-Allen & Geraci, 1985; Corkeron et al., 1987; Elwen & Leeney, 2010; Su et al, 2022), little research has focused specifically on humpback wound healing rates (Guzman & Capella, 2017; Hill et al., 2017).

The severity of the injury, its placement on the body, and the age of the whale are all important variables that may impact healing rates. In this case, the propeller blade that struck SEAK-5490 seems to have penetrated both skin and blubber. The location of the injury, across the left dorsal surface, is a common place to see lacerations from propeller blades (Hill et al., 2017). As this whale is a juvenile (estimated by NPS biologists to be between three and four years old) its wounds may heal more rapidly than its adult conspecifics.

The response team disentangling SEAK-5490 on October 11, 2023, with the propeller scar highlighted. This juvenile humpback whale became entangled in crab pot gear in Icy Strait, just outside the boundary of Glacier Bay National Park. The propeller scar, visible in this photo, was acquired between October 11 and August 15, when the individual was last sighted by NPS staff. Response conducted under NMFS ESA/MMPA Permit number 24359. Photo Credit: Sean Neilson.

This wound may continue to change shape as it heals, and will be considered fully healed when the appearance of the wound site remains unchanged for a prolonged period (Hill et al., 2017). Still, with this wound appearing to reach healing maturation in less than two months, this case highlights how challenging it can be to understand when an injury occurs within a whale's life history. The Glacier Bay NPS team will be on the lookout for this whale in 2024 to determine how the animal has fared and assess the condition of the propeller scars.

The successful partial disentanglement of this whale was conducted by a team of responders from the National Park Service, the Alaska Whale Foundation, NOAA Fisheries, and a certified and authorized UAS pilot. To view video footage and read more details about this exceptional response effort, check out our webstory.

Ed Lyman (left) and Sadie Wright (right) using a live-streaming camera attached to a 28-foot-pole behind a knife to disentangle the subadult humpback whale in Illiuliuk Bay. Photo by NOAA (NOAA permit 24359).

First Disentanglement of 2024!

After a report from our partners at ADF&G and other community members, large whale entanglement responders Ed Lyman and Sadie Wright traveled to Dutch Harbor to document and attempt to disentangle a subadult male humpback whale who was anchored by an entanglement in lines (likely fishing gear) in Illiuliuk Bay. Using new technology that allowed responders to view polecam imagery in near real time, the team successfully partially disentangled the whale. More information is provided in the NOAA Webstory found here.

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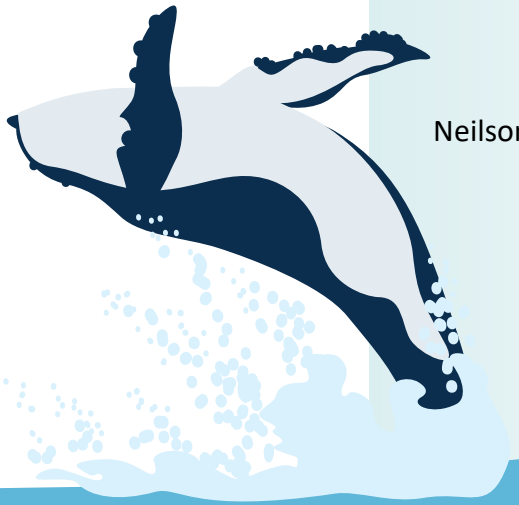

The Sun’aq Tribe of Kodiak respond to a humpback whale (2023266, SA-AKR-2023-03)

Alaska Region Stranding Agreement Holders

- Alaska Consortium of Zooarcheologists
- Alaska SeaLife Center
- Alaska Veterinary Pathology Services
- Alaska Whale Foundation
- Aleut Community of St. Paul
- Rachel Berngartt, DVM
- Chichagof Conservation Council
- Glacier Bay National Park
- North Slope Borough
- Petersburg Marine Mammal Center
- Sun’aq Tribe of Kodiak
- University of Alaska Southeast, Juneau
- University of Alaska Southeast, Sitka
- University of Alaska Fairbanks, Museum of the North

109(h) Federal, State, Tribal, and Local Officials

- Alaska Department of Fish and Game
  Division of Wildlife Conservation, Marine Mammal Program
- Yakutat Ranger District, Tongass National Forest

Alaska Veterinary Pathology Services respond to a Cook Inlet beluga stranding (2023288, NOAA permit 24359).

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