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National Marine Fisheries Service

Alaska Region Protected Resources Division

# 2023 Alaska Marine Mammal Stranding Summary

**1-877-925-7773**

NOAA Fisheries  
24-Hour Stranding  
Hotline



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**1-877-925-7773**

**24-Hour  
Stranding Hotline**

Only confirmed stranding activities involving species under the jurisdiction of NOAA Fisheries (cetaceans and pinnipeds, except walrus) are used in this report.

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

This report separately summarizes confirmed reports of:

- vessel strikes with live marine mammals
- free swimming, entangled large whales (with or without a response)
- live, entangled pinnipeds (with no response)

\*Does not include live, free-swimming entangled whales or entangled pinnipeds with no response

# 2023 Marine Mammal Strandings in Alaska

## The Alaska Marine Mammal Stranding Response Network

The Alaska marine mammal stranding and entanglement network is a group of dedicated professionals and volunteers across Alaska. Responses are conducted under the Marine Mammal Protection Act (MMPA) authorization either under a 112c agreement issued by NMFS to Network members through a Stranding Agreement or through 109 (h) authority exercised by local, State, Federal, or Tribal entities. Stranding Agreements are issued from NOAA Fisheries Alaska Region to ensure that all response activities are safe for both responders and animals. Stranding response for species listed under the Endangered Species Act (ESA), some entanglement responses, and other enhancement activities are conducted under Marine Mammal Health and Stranding Response (MMHSRP) NOAA Permit No. 24359. This summary is made possible by the efforts of the Alaska Marine Mammal Stranding Network, along with partner organizations, agencies, and members of the public who have reported stranding events to NMFS throughout the year.

A marine mammal was considered “stranded” if:

- Dead, whether found on the beach, ice, or floating in the water;
- Alive on a beach (or ice) but unable to return to the water;
- Alive on a beach (or ice) and in need of apparent medical attention; or
- Alive in the water and unable to return to its natural habitat without assistance.

### Mass Stranding

A mass stranding describes a simultaneous stranding of two or more cetaceans at the same time and space, other than cetacean cow/calf pairs.

## 2023 Significant Events

- 298\* marine mammal strandings.
- The Aleut Community of St. Paul Island disentangled 57 northern fur seals. An additional 20 Steller sea lions and eight northern fur seals were entangled but were not captured or disentangled.
- Two Bigg’s killer whales were entrapped in Barnes Lake on Prince of Wales Island. A response with [Fisheries and Oceans Canada](#) and Coffman Cove residents led the whales out of the lake. Both whales were later observed traveling off of Canada.
- A humpback whale (2023304) stranded alive in Utqiagvik on November 23rd, and later died.
- Eleven large whales were entangled, including eight humpback whales and three gray whales.
- Thirteen Cook Inlet beluga whales stranded dead. Additionally, there was a mass stranding event involving seven live Cook Inlet beluga whales.
- [The gray whale Unusual Mortality Event \(UME\)](#) continued with 11 dead stranded gray whales in Alaska. The UME was closed on November 9, 2023.

Additional stranding information and references are available at NMFS’ Alaska Region website:

<https://www.fisheries.noaa.gov/alaska/marine-life-distress/alaska-marine-mammal-stranding-network>

**2023:  
298\*  
Strandings**



## Summary

Marine mammals are classified into four taxonomic groups: cetaceans (whales, dolphins, and porpoises); pinnipeds (seals, sea lions, and walruses); sirenians (manatees and dugongs); and marine fissipeds (polar bears and sea otters). NOAA Fisheries is responsible for the protection and conservation of all cetaceans and pinnipeds, with the exception of walruses. The U.S. Fish and Wildlife Service oversees the management of sirenians, sea otters, walruses, and polar bears. This report is focused on species under NOAA Fisheries' jurisdiction.

Marine mammals strand for a variety of reasons, including: disease, malnutrition, predation, injuries due to vessel collision or firearms (unrelated to the legal harvest for subsistence purposes), entanglement, ingestion of marine debris or gear, pollution exposure, or some combination of these factors. Additionally, marine mammal strandings may be related to unusual weather or oceanographic events. In many cases, the causes of strandings remain undetermined, especially when carcasses are inaccessible, are decomposed, or when only photos are available.

Alaska has 33,904 miles of coastline and more than 30 species of marine mammals inhabit the surrounding waters. The coastline of Alaska and its offshore areas offer some of the most biologically productive waters in the world – providing critical habitat for many marine mammals. In some cases, major portions of the global population of a marine mammal species may congregate in Alaskan waters. Some of these marine mammals are listed under the ESA, raising conservation concerns and highlighting the importance of information gained through stranding responses. In addition to their ecological importance, marine mammals have critical cultural and traditional value, central to the lives and food security of Alaska Native peoples.

### Endangered Marine Mammal Species in Alaska:

- Bearded seal (Beringia DPS)
  - Spotted seal (Southern DPS)
  - Ringed seal (Arctic subspecies)
  - Steller sea lion (Western DPS)
  - Cook Inlet beluga whale
  - Sperm whale
  - Blue whale
  - Fin whale
  - Sei whale
  - North Pacific Right whale
  - Blue whale
  - Bowhead whale
  - Gray whale
  - (Western North Pacific DPS)
  - Humpback whale
  - (Western North Pacific DPS, Mexico DPS)
- \*Distinct Population Segment (DPS)



Cook Inlet beluga whale (2023288), Alaska Veterinary Pathology Services, NOAA permit No. 24359

There were 298\* strandings reported throughout Alaska in 2023 (Table 1), which is slightly above the 10-year average (2013 - 2022) of  $282 \pm 72$  animals (range: 179 – 453). The majority of strandings occurred between May and October (Figure 1). Of the reports in 2023, 64% were pinnipeds, 14.8% were small cetaceans, and 18.8% were large whales (sperm whales and baleen whales). Sometimes carcasses were too decomposed to classify animals as small cetaceans or large whales, or the location of the stranding prevented access to, and recovery of, the carcass. These animals are categorized as “unidentified cetacean.” These numbers are considered a minimum and should not be interpreted as a comprehensive understanding of strandings in Alaska.

Table 1. Stranded marine mammals in 2023 compared to the 10-year average (2013 - 2022) by marine mammal group for the Alaska Region.

	Confirmed Stranding Reports 2023	10-Year Average $\pm$ Standard Deviation (range)
Pinnipeds	192	$151 \pm 53$ (97 – 276)
Small cetaceans	44	$49 \pm 24$ (24 – 108)
Large whales	56	$59 \pm 21$ (28 – 92)
Unidentified cetacean	6	$19 \pm 11$ (6 – 40)
Unidentified marine mammal	-	$6 \pm 4$ (1 – 13)

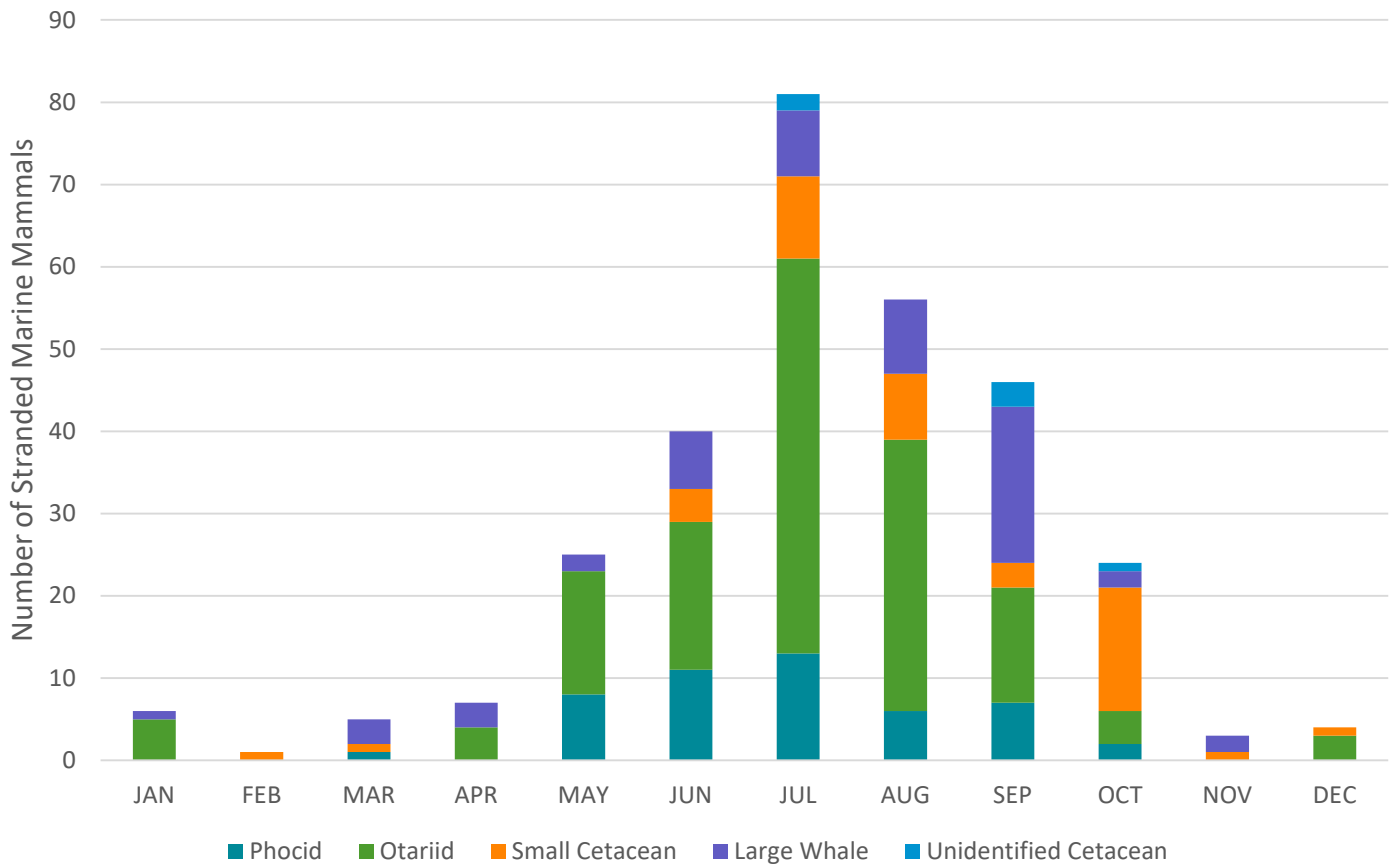


Figure 1. Number of strandings by marine mammal group and month.

\* Does not include live, free-swimming entangled whales or entangled pinnipeds with no response



## Dedicated Carcass Surveys

In 2023, there were 19 dedicated carcass surveys involving Alaska Marine Mammal Stranding Network members and partners. Eleven surveys were supported by the U.S. Coast Guard (USCG) including five surveys along the Copper River Delta (Figure 2, red box), one survey originating in Sitka (Figure 2, pink polygon), one survey originating in Nome (Figure 2, blue polygon), and five surveys of Kodiak Island and surrounding islands including Tugidak Island (Figure 2, green polygon). Table 2 summarizes the mode of aircraft, duration, and new carcasses observed during surveys.

During the dedicated carcass surveys of the Copper River Delta and surrounding areas, there were 25 unique pinniped carcasses observed (24 Steller sea lions; 1 harbor seal; Table 2).

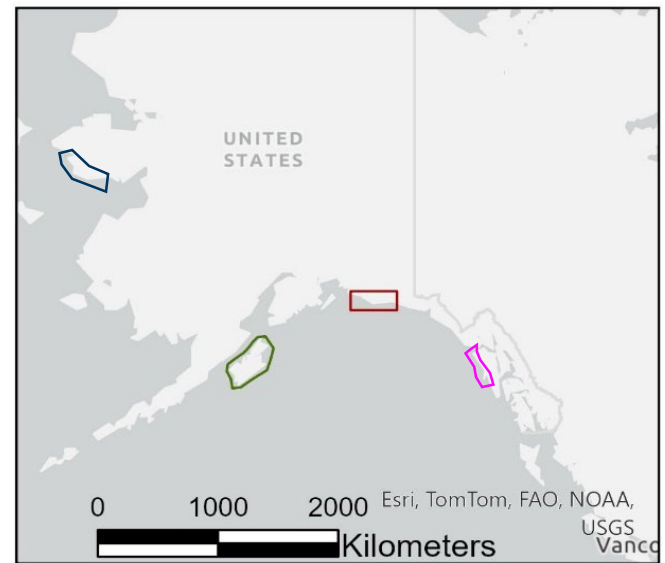


Figure 2. Map showing the general survey area for Sitka (pink polygon), Copper River Delta (red box), Kodiak Archipelago (green polygon), and Nome (blue polygon).

Table 2. Summary of the dedicated carcass surveys. The table does not include carcasses reported by the public, or Alaska State Troopers during their surveys of these areas, nor does it include repeat sightings of carcasses.

	Date	Mode	Duration (hours)	New Carcass Observations
Nome	Aug 4	helicopter	1	-
Sitka	May 3	helicopter	2	-
Kodiak	May 26	Fixed wing	2.5	1 humpback whale
Kodiak	May 30	helicopter	4.5	1 humpback whale
Kodiak	July 7	helicopter	4.2	1 humpback whale, 1 gray whale
Kodiak	July 17	helicopter	4.75	1 gray whale, 1 Steller sea lion
Kodiak	Aug 30	helicopter	3.5	-
Kodiak	Sept 11	helicopter	4.5	1 gray whale, 3 humpback whales
Copper River Delta	May 15	Fixed wing	< 2	1 Steller sea lion
	May 16	helicopter	3.5	
Copper River Delta	June 1	Fixed wing	2	2 Steller sea lions, 1 harbor seal
	June 2	helicopter	2.5	
Copper River Delta	June 12	Fixed wing	1.5	4 Steller sea lions
	June 13	helicopter	2.5	
Copper River Delta	July 10	Fixed wing	4	3 Steller sea lions
Copper River Delta	Aug 1	Fixed wing	2.75	14 Steller sea lions
	Aug 2	helicopter	2	
Copper River Delta	Sept 25	Fixed wing	3	3 unidentified cetaceans
	Sept 26	helicopter	2.5	





Biologist returns to waiting USCG helicopter after sampling a Steller sea lion during a Copper River Delta survey.

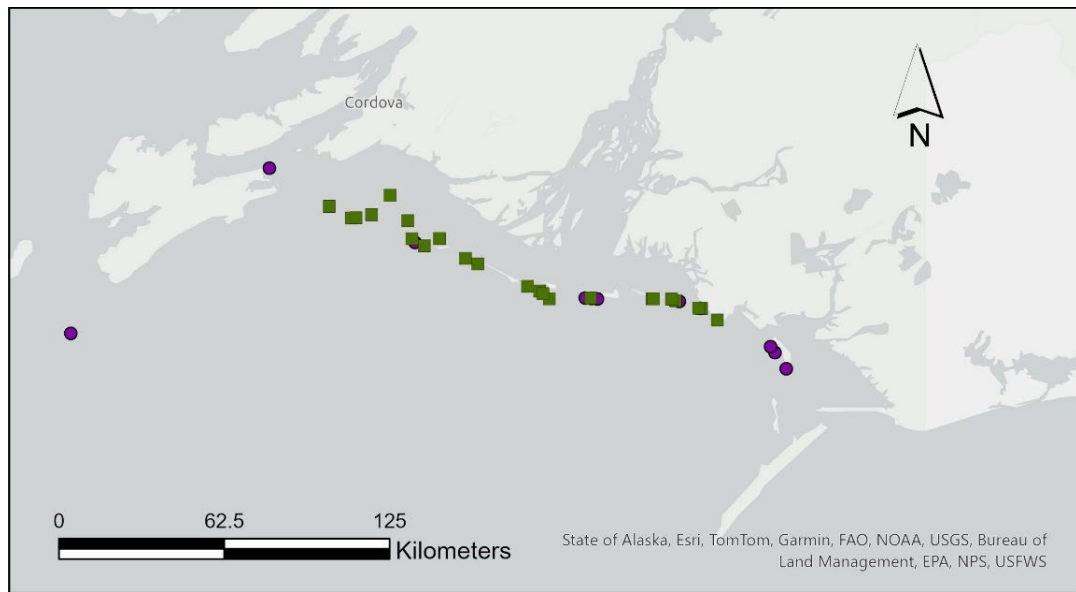


Figure 3. Pinniped carcasses observed during dedicated surveys of Copper River Delta are denoted as green squares (23 Steller sea lions; 1 harbor seal) and separate carcasses reported by the public and Alaska State Troopers (14 Steller sea lions) are denoted as purple circles.

An additional 14 Steller sea lions in the Copper River Delta and surrounding waters were reported by the public or Alaska State Troopers. Fourteen carcasses were examined by NOAA biologists or Alaska State Troopers and ten had evidence of human interactions including nine carcasses with firearm injuries and one with sharp trauma associated with a vessel strike. All pinniped carcasses observed in the Copper River Delta are presented in Figure 3, with observations during the surveys denoted as green squares and other reports as purple circles.

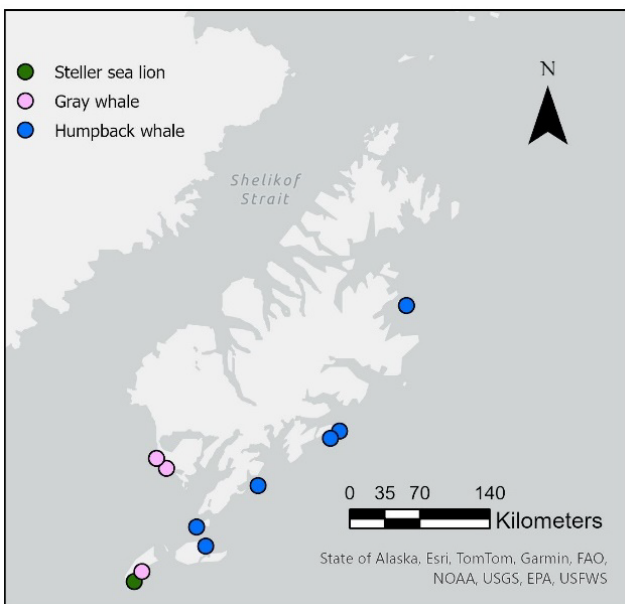


Figure 4. Kodiak Archipelago with carcass locations observed during dedicated surveys by species.

The carcasses observed during the Kodiak surveys conducted by The Sun'aq Tribe of Kodiak included six humpback whales, three gray whales, and one Steller sea lion (Table 2, Figure 4). The gray whale carcass observed on July 17<sup>th</sup> was previously seen alive and entangled on June 1, 2023 near Ragged Island, Resurrection Bay. In some cases, carcasses were not examined due to inaccessibility, time constraints, and/or presence of bears.



Humpback whale (2023095), The Sun'aq Tribe of Kodiak (SA-AKR-2023-03)



## Pinnipeds

Pinnipeds are seals, fur seals, and sea lions. All pinnipeds come ashore (on land or ice) to rest, breed, rear pups, and molt. When pinnipeds are observed sick, injured, in distress, entangled, or dead, the Alaska Marine Mammal Stranding Network may respond to provide care, including rehabilitation, or to examine the carcass. In 2023, there were 192 stranded pinnipeds, including 57 northern fur seals that were captured and disentangled on St. Paul Island (Table 3, Figure 5). The three most frequently stranded pinniped species were Steller sea lions (n=85), northern fur seals (n=58), and harbor seals (n=36). Phocid seals are more commonly stranded in the southcentral subarea (42%) followed by the Bering Sea subarea (23%, Figures 6, 7). There were nearly twice as many Steller sea lion and northern fur seal strandings in 2023 compared to the 10-year average (Table 3). These increases are likely due to increased effort. NOAA undertook carcass surveys in the Copper River Delta area, and the Aleut Community of St. Paul Island also continued their surveys and disentanglement efforts, which contributed to the large portion of otariid strandings in the Bering Sea (Figures 8, 9). These efforts are discussed in more detail later in this report.

Table 3. Pinniped strandings by species in 2023 compared to the 10-year average (2013-2022) for the Alaska Region.

	Confirmed Stranding Reports 2023	10-Year Average $\pm$ Standard Deviation (range)
Steller sea lion	85	$39 \pm 7$ (29 – 53)
Northern fur seal	58	$14 \pm 15$ (3 – 49)
California sea lion	1	-
Bearded seal	2	$16 \pm 16$ (3 – 50)
Ringed seal	5	$20 \pm 13$ (8 – 45)
Spotted seal	2	$10 \pm 8$ (3 – 26)
Unidentified ice seal	1	$15 \pm 16$ (1 – 46)
Harbor seal	36	$32 \pm 10$ (18 – 57)
Unidentified seal	2	-
Unidentified pinniped	-	$8 \pm 6$ (1 – 19)



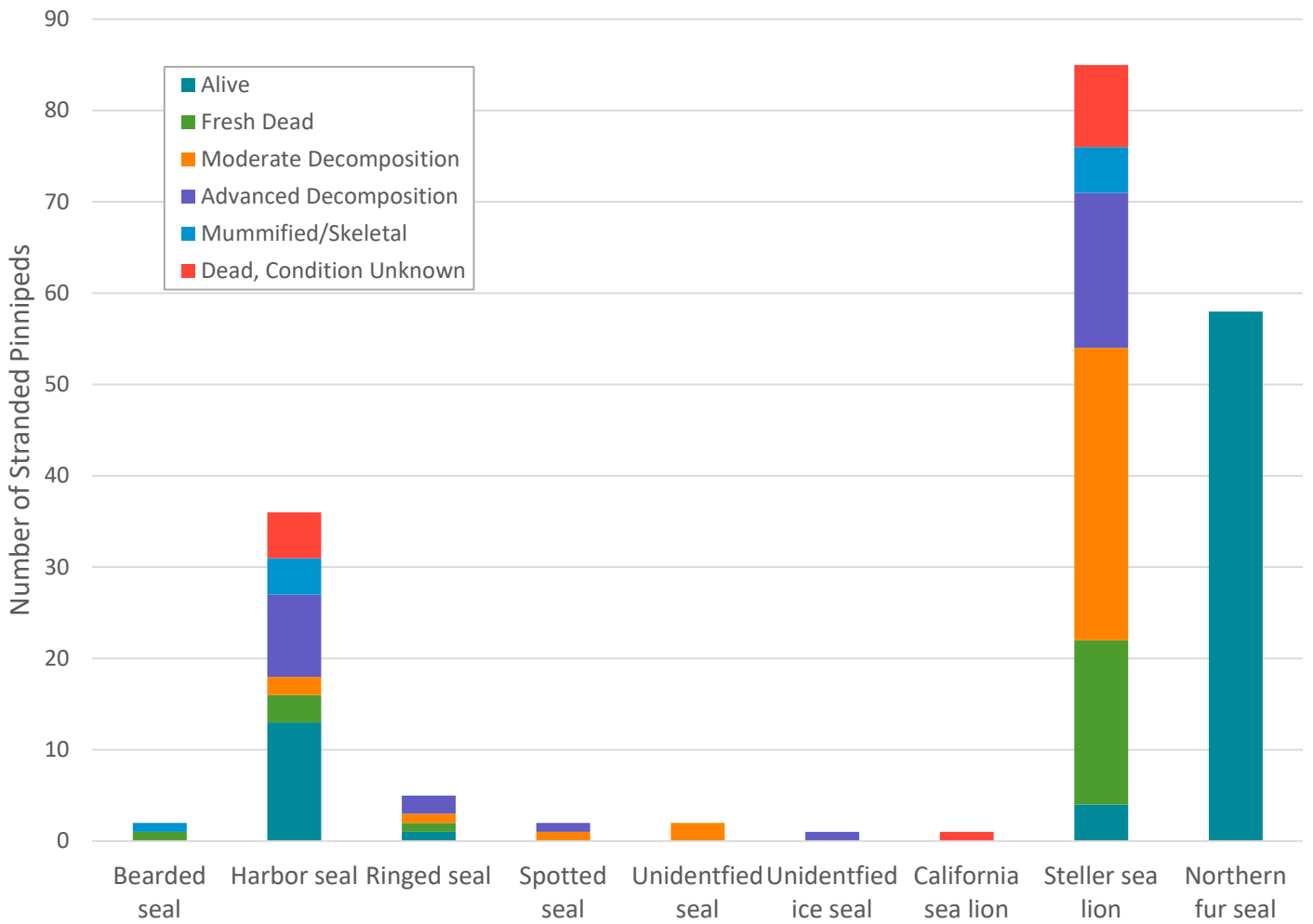


Figure 5. Condition at initial observation of stranded pinnipeds by species.

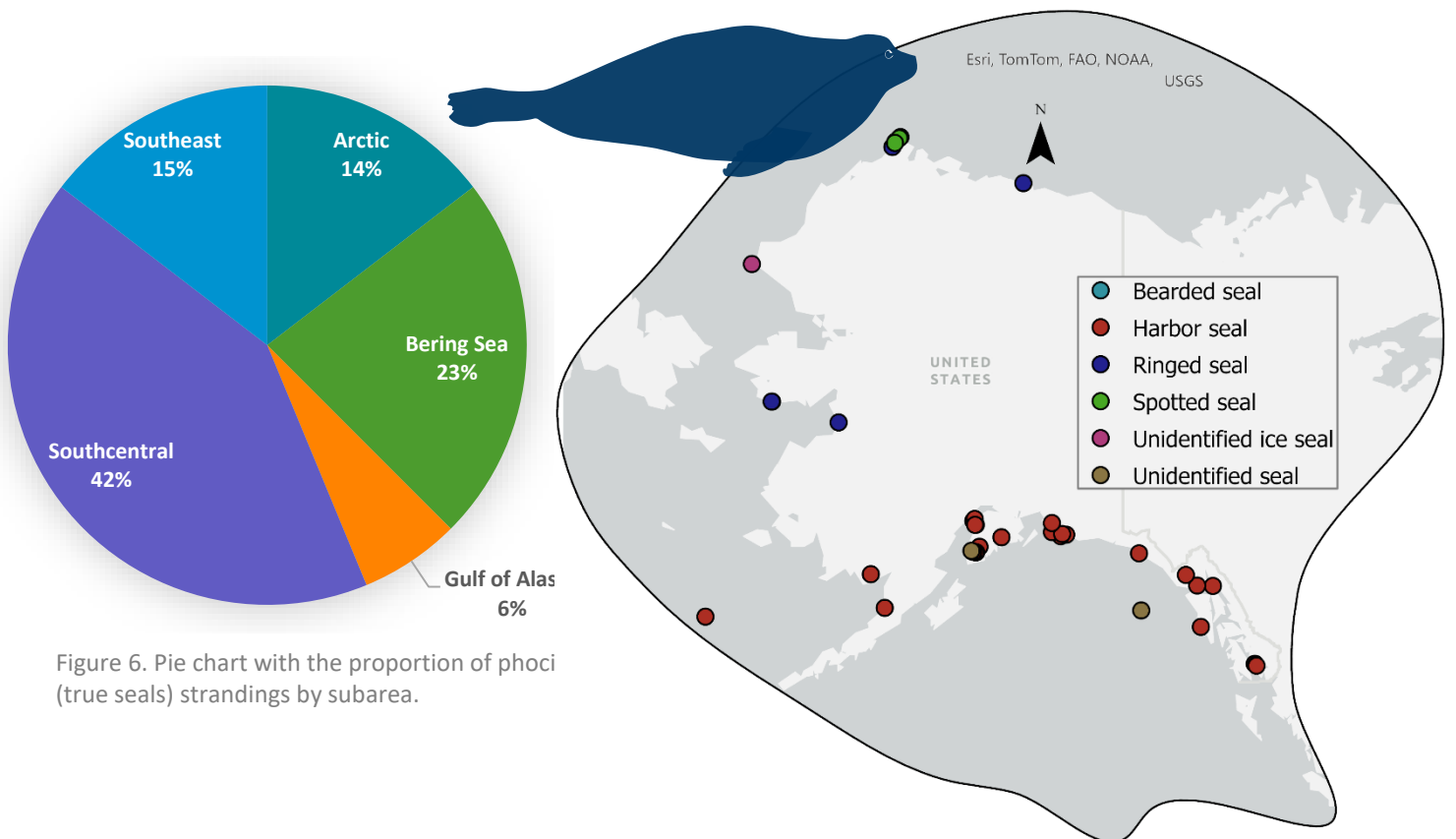


Figure 6. Pie chart with the proportion of phocid (true seals) strandings by subarea.

Figure 7. Map of the general location of stranded phocids by species in Alaska.



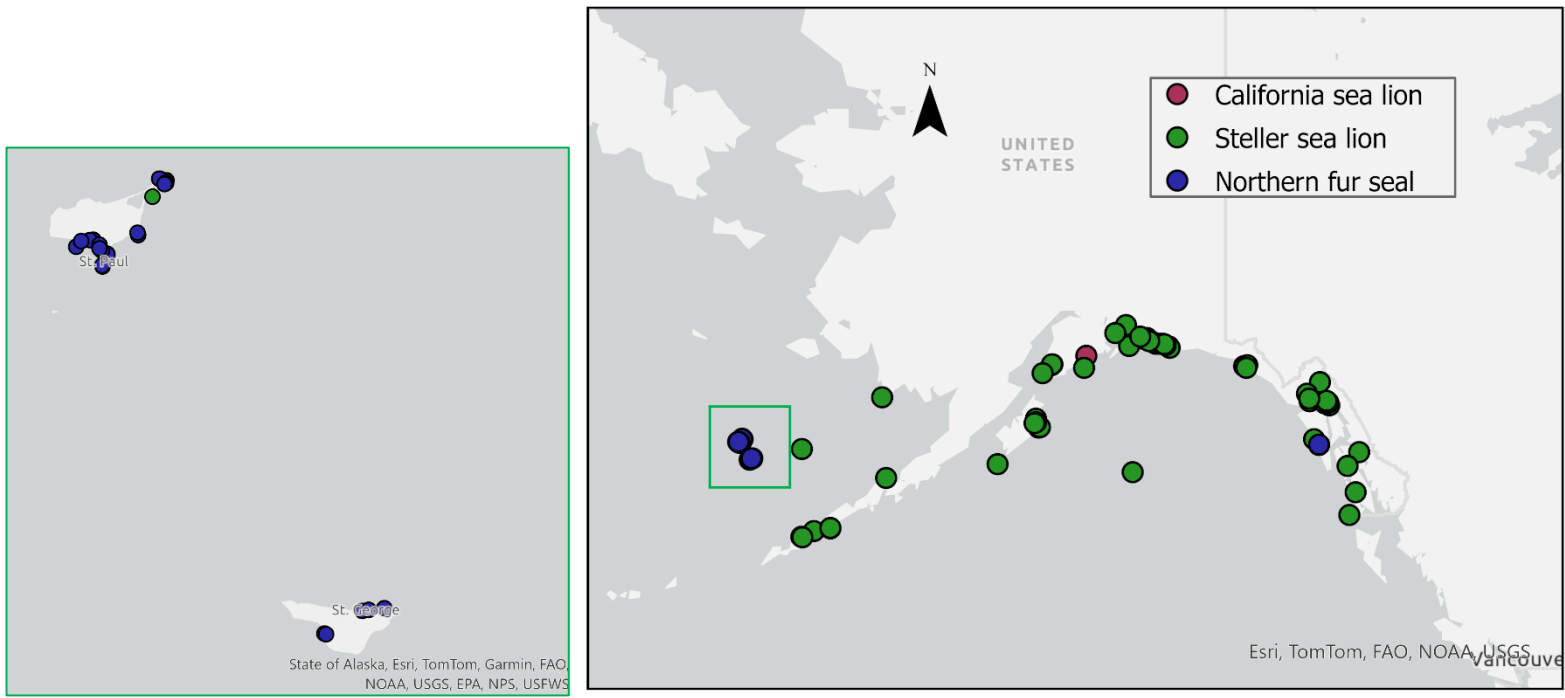


Figure 8. Map of the general location of stranded Otoriids by species in Alaska. Insert map is a close up of the Pribilof Islands.

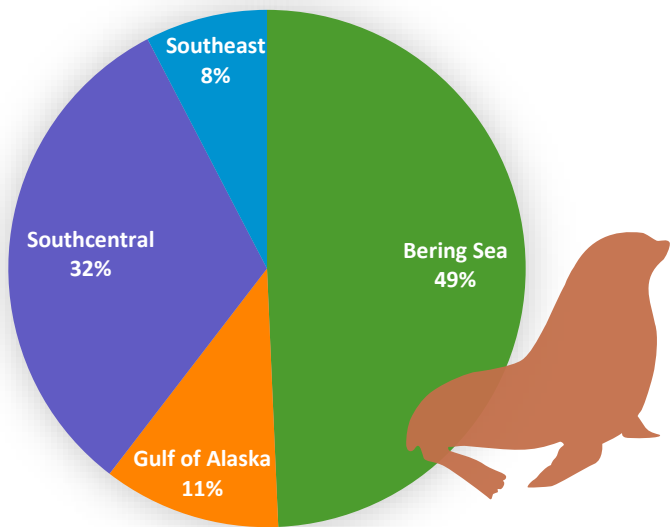


Figure 9. Pie chart with the proportion of otariid (sea lions and fur seals) strandings by subarea.



A young northern fur seal (2023006, CU2301) at the Alaska SeaLife Center (SA-AKR-2022-05)

NOAA SA-AKR-2022-05

## Rehabilitation and Release of Stranded Marine Mammals

The Alaska SeaLife Center is the only rehabilitation facility in the Alaska Region. One northern fur seal from Sitka (2023006, CU2301) and 11 harbor seal pups were reported as abandoned, injured, and/or in distress in 2023. The northern fur seal and 10 harbor seal pups were transferred to the Alaska SeaLife Center for rehabilitation. Nine harbor seal pups were released between August 23rd and September 23rd. The northern fur seal and one harbor seal pup were deemed non-releasable due to behavioral and/or medical concerns that left them unlikely to survive in the wild (Table 4).



The MMHSRP and NOAA Fisheries' Permits and Conservation Division work with captive marine mammal facilities to place non-releasable animals into permanent managed care. More information on NOAA Fisheries' non-releasable policy can be found here: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/non-releasable-marine-mammals>. The northern fur seal was transferred to Mystic Aquarium in Connecticut, while the harbor seal pup will remain in the care of the Alaska SeaLife Center.

Table 4. Summary of stranded marine mammals successfully rehabilitated at the Alaska SeaLife Center by species, sex, age class, and final outcome.

Species	Field-NMFS number	Sex, Age Class	Outcome
Northern fur seal	CU2301; 2023006	female, yearling	non-releasable
Harbor seal	PV2302, 2023032	female, pup	released
Harbor seal	PV2304, 2023034	male, pup	released
Harbor seal	PV2303, 2023035	female, pup	released
Harbor seal	PV2305, 2023039	female, pup	released
Harbor seal	PV2306, 2023041	male, pup	released
Harbor seal	PV2307, 2023047	female, pup	released
Harbor seal	PV2308, 2023048	male, pup	released
Harbor seal	PV2310, 2023053	male, pup	released
Harbor seal	PV2311, 2023056	female, pup	released
Harbor seal	PV2314, 2023149	female, pup	non-releasable





# Threats to Pinnipeds

## Entanglements and Ingestions

The Alaska Marine Mammal Stranding Network responded to 59 entangled pinnipeds. One unidentified seal (2023299) had ingested fishing gear found during a post mortem examination. Two Steller sea lions were entangled, including a yearling (2023038) with a neck entanglement that was captured using remote sedation and disentangled (NOAA permit No. 24359) by veterinarians and biologists with the Alaska Department of Fish and Game, NMFS, and The Sun’aq Tribe of Kodiak. The second Steller sea lion (2023299) was an adult found freshly dead during a research longline survey.

The remaining 57 entangled pinnipeds were all northern fur seals that were captured and disentangled by biologists with the Aleut Community of St. Paul Island and/or NMFS Protected Resources Division. Most northern fur seals were small and young, allowing for physical restraint during the response efforts (Figure 10). Adult male fur seals are often too large to capture and restrain for disentanglement efforts, and adult females are often associated with territorial males making captures too dangerous for responders.

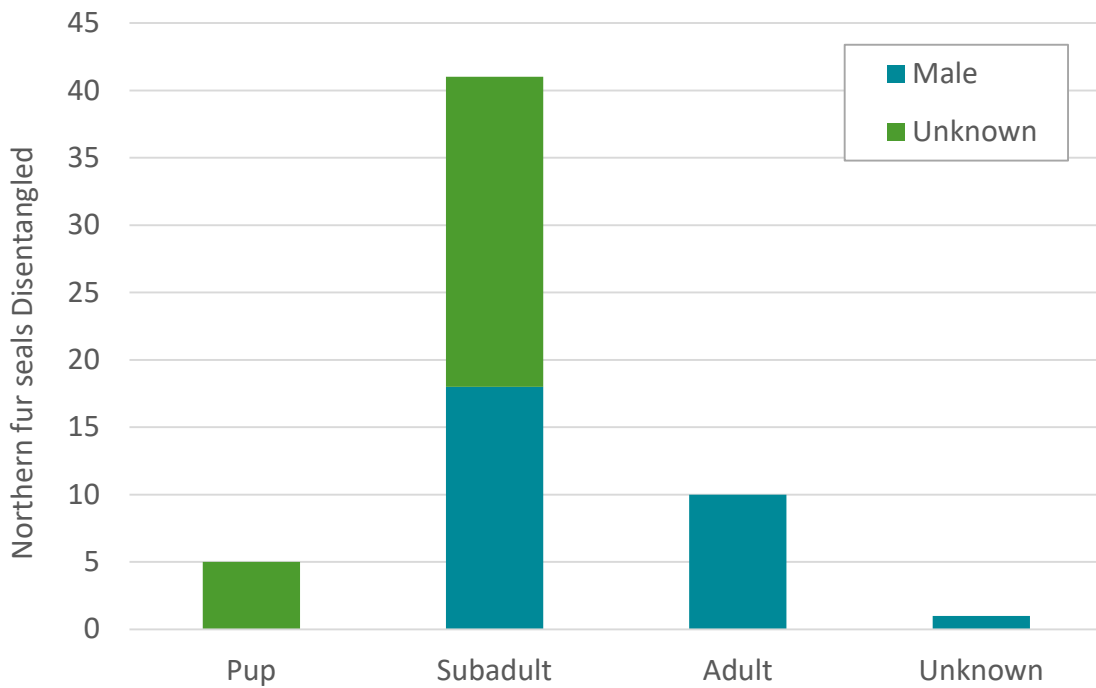


Figure 10. Age class and sex of northern fur seals captured and disentangled on St. Paul Island by biologists with the Aleut Community of St. Paul Island and/or NMFS Protected Resources Division.



## Entanglements and Ingestions continued

In addition to those otariids observed and responded to, there were also 28 entangled otariids observed which were not responded to, including 20 Steller sea lions and eight northern fur seals. An additional three Steller sea lions had scars consistent with being previously entangled. These animals were not captured and disentangled and therefore are not included in the National Stranding Database. These reports include confirmed reports by the public, the Aleut Community of St. Paul Island, and Alaska Department of Fish and Game.

Of the 20 Steller sea lion entanglements (Figure 11), 12 animals had active neck entanglements of unknown materials (too deeply embedded in their necks to identify material), five had swallowed hooks with attached lures (flashers), three sea lions had been hooked (one by a halibut hook, and two with hooks in their lips, trailing lines and lures).

Of the eight northern fur seals with neck entanglements, two seals had plastic packing bands around their necks, two seals had fishing nets around their necks, and four seals had unknown materials too deeply embedded in their necks to identify.



Branded (50V) adult female Steller sea lion observed with a salmon fishery flasher on Little Island, SE Alaska (PE2023\_68)

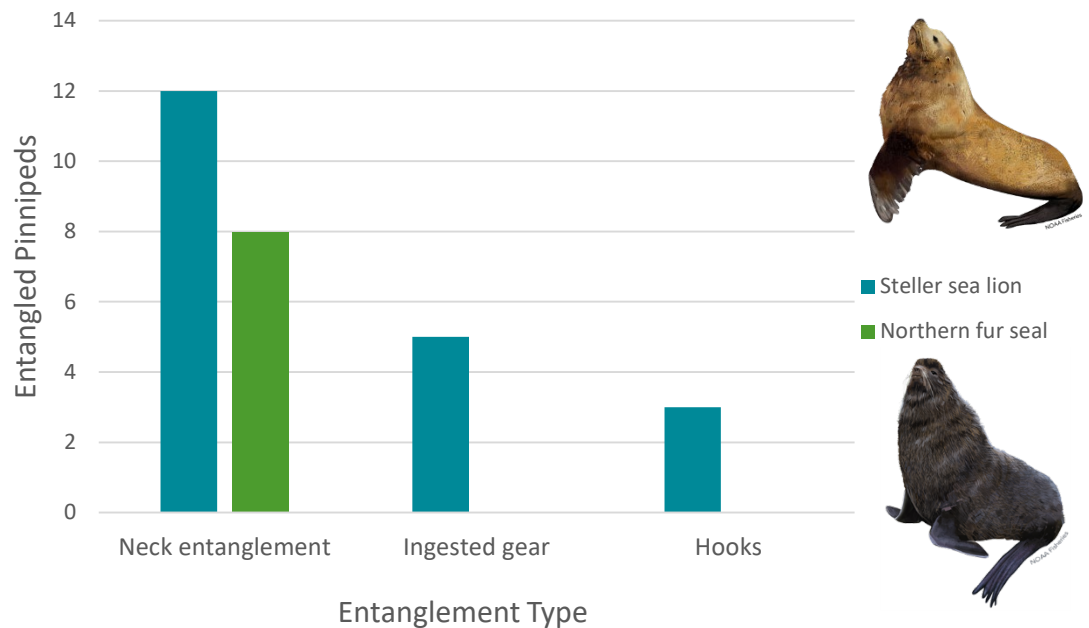


Figure 11. Number of Steller sea lions and northern fur seals by entanglement type, reported as entangled without response, and not included in the National Stranding Database.

Of the 28 entangled Steller sea lions and northern fur seals, 14 were males (including adults, subadults, and juveniles), five were adult females, and nine were unknown age class (Figure 12).

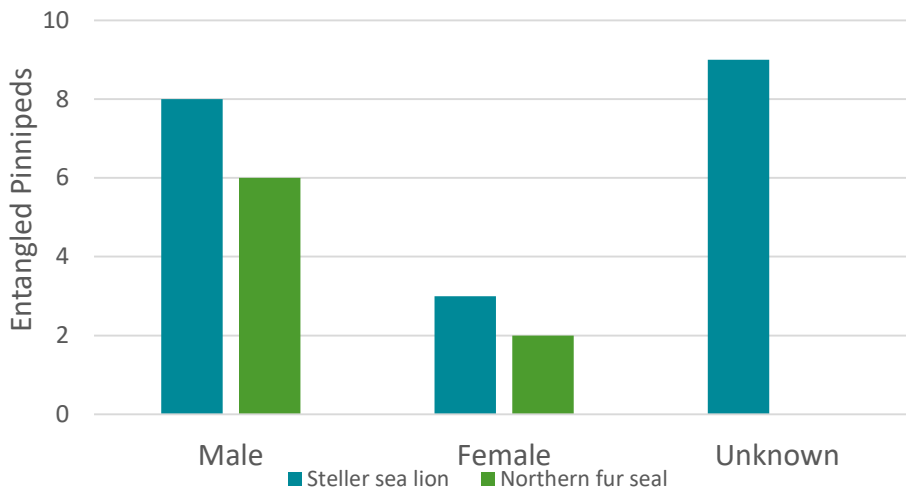
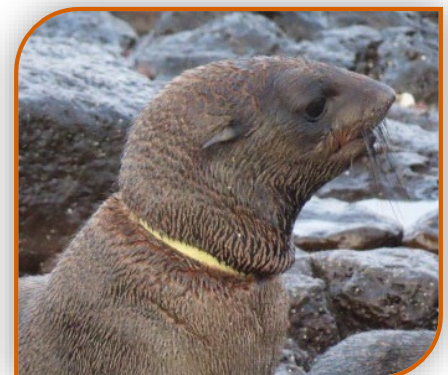


Figure 12. Sex of Steller sea lions and northern fur seals reported as entangled without response.



Juvenile male northern fur seal observed with a yellow plastic packing band around his neck on St. George Island PE2023\_70, MMPA 109(h)

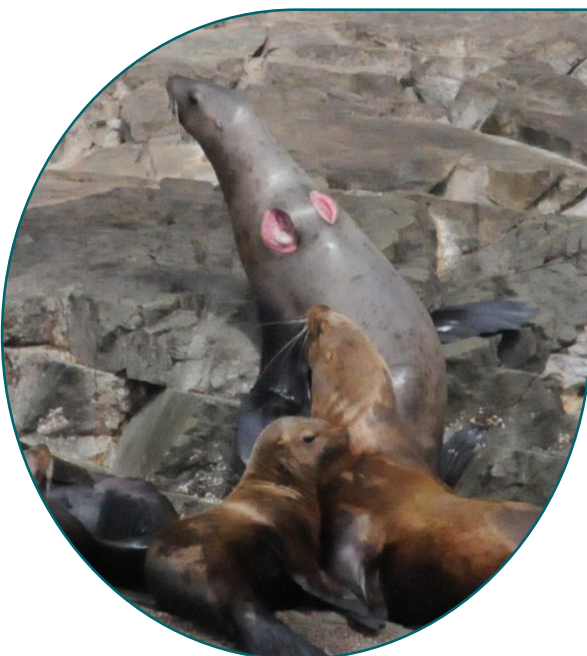




Steller sea lion (2023183) stranded in Yakutat (Alaska Veterinary Pathology Services, SA-AKR-2023-02)

### **Vessel Strike**

Three Steller sea lions had evidence of vessel strikes, including one live, female Steller sea lion observed on Benjamin Island (Southeast Alaska) with injuries likely from a vessel propeller. During the Copper River Delta surveys, one Steller sea lion carcass (2023060) was observed with multiple cuts on its dorsum. A third Steller sea lion carcass (2023054) was struck by a tour boat in Glacier Bay National Park and a necropsy found contusions around the head and neck of the sea lion indicating it was alive when struck.



Steller sea lion (VS2023\_03) observed with injuries from a propeller. Photo credit Alaska Dept. of Fish & Game

### **Firearms (unrelated to the legal subsistence harvest)**

Firearm injuries were determined as the cause of death after examination of nine Steller sea lion carcasses observed between May and August. All Steller sea lions were observed within the Copper River Delta and were part of the endangered western distinct population segment. An additional 29 carcasses (28 Steller sea lions and one harbor seal) were observed within the Copper River Delta during this time frame; however, the carcasses were not examined. The large number of Steller sea lion carcasses observed in the Copper River Delta raises concerns about the illegal shooting of Steller sea lions in this fishing area.

# Cetaceans

## Small Cetacean

Small cetaceans are toothed species of whales, dolphins, and porpoises that range in length from 5 to 25 feet. There were 44 dead stranded small cetaceans and six unidentified cetaceans (Table 5). The most common stranded small cetaceans were beluga whales (n=26; of which 20 were from the endangered Cook Inlet population), killer whales (n=3), and harbor porpoises (n=2). Stranded small cetaceans were reported most frequently in Southcentral Alaska (Figures 13, 14). Two Bigg’s (transient) killer whales (2023276, T051; 2023277, T049A2) were trapped in Barnes Lake on Prince of Wales Island in Southeast Alaska (Table 5, Figure 15). A response was conducted and both whales were successfully drawn out of the lake. Subsequently they were observed, separately, traveling with other Bigg’s killer whales on November 23, 2023 in Blackfish Sound, British Columbia (T049A2) and on April 6, 2024 near Victoria, Vancouver Island (T051).

Table 5. Strandings of small and unidentified cetaceans by species compared to the 10-year average (2013-2022) for the Alaska Region.

	Confirmed Stranding Reports 2023	10-Year Average ± Standard Deviation (range)
Dall’s porpoise	2	3 ± 2 (1 – 6)
Harbor porpoise	8	9 ± 3 (3 – 12)
Unidentified porpoise	1	-
Baird’s beaked whale	1	-
Cuvier’s beaked whale	1	-
Killer whale	3	5 ± 2 (2 – 10)
Beluga whale	6	11 ± 5 (1 – 18)
Cook Inlet beluga whale	20	19 ± 25 (5 – 85)
Pacific white-sided dolphin	1	-
Unidentified dolphin	1	-
Unidentified cetacean	6	13 ± 11 (2 – 38)



Harbor porpoise (2023100) stranded in Seldovia and necropsied in Anchorage (Alaska Veterinary Pathology Services, SA-AKR-2023-02)

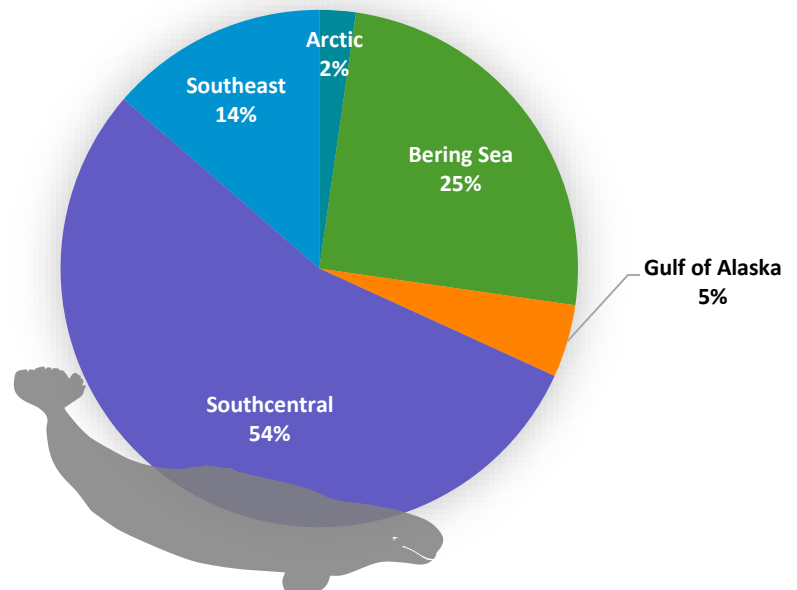


Figure 13. Pie chart of small cetacean strandings by subarea.



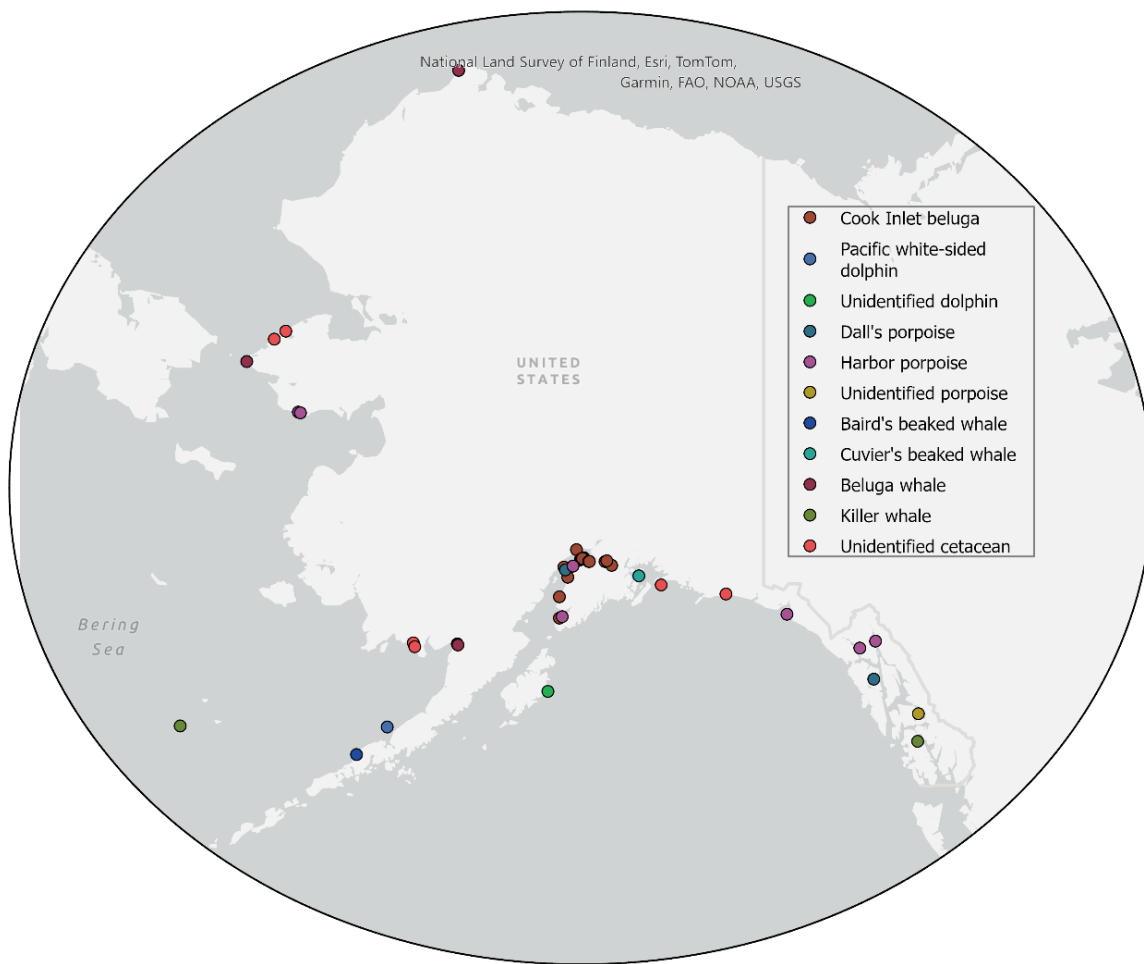


Figure 14. Locations of stranded small cetaceans by species.

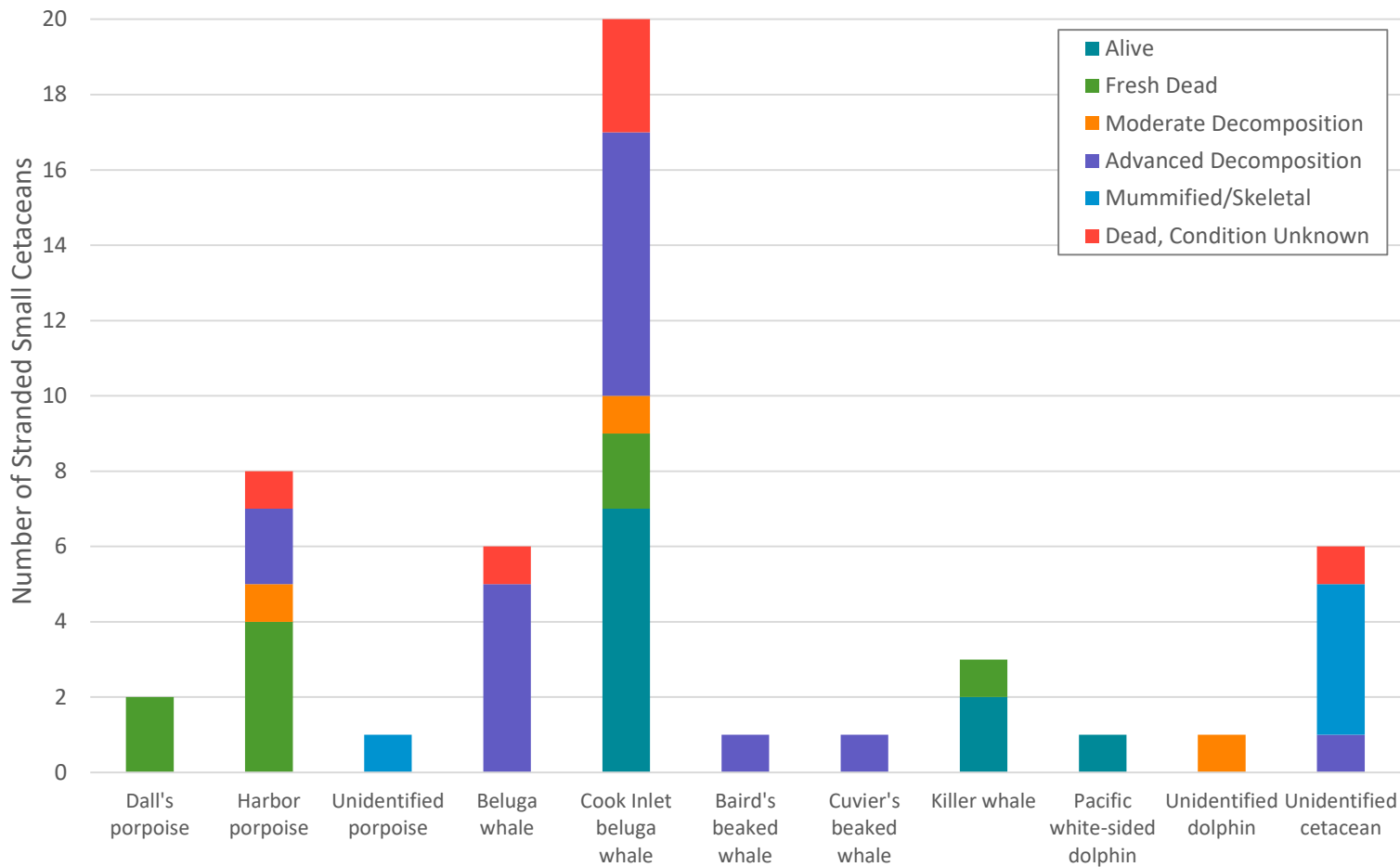


Figure 15. Condition at initial observation of stranded small cetaceans by species.

## Cook Inlet Beluga Whales: Species in the Spotlight

Cook Inlet beluga whales are endangered and a [NOAA Species in the Spotlight](#). In 2023, there were 13 dead stranded Cook Inlet beluga whales. Stranding network partners were able to sample or necropsy nine of the carcasses. Despite attempts to locate the carcass, one whale was not found after the initial report. There was one live mass stranding event that involved seven Cook Inlet beluga whales (Figure 16).

Between 2016 and 2022, there were 77 dead stranded Cook Inlet beluga whales (Figure 17) with five to 13 strandings each year. Of note are the 27 fetuses and calves that stranded during this period. The majority of the stranded whales were in a moderate or advanced decomposition state when first observed, which severely limits the ability to determine cause of death during a necropsy.

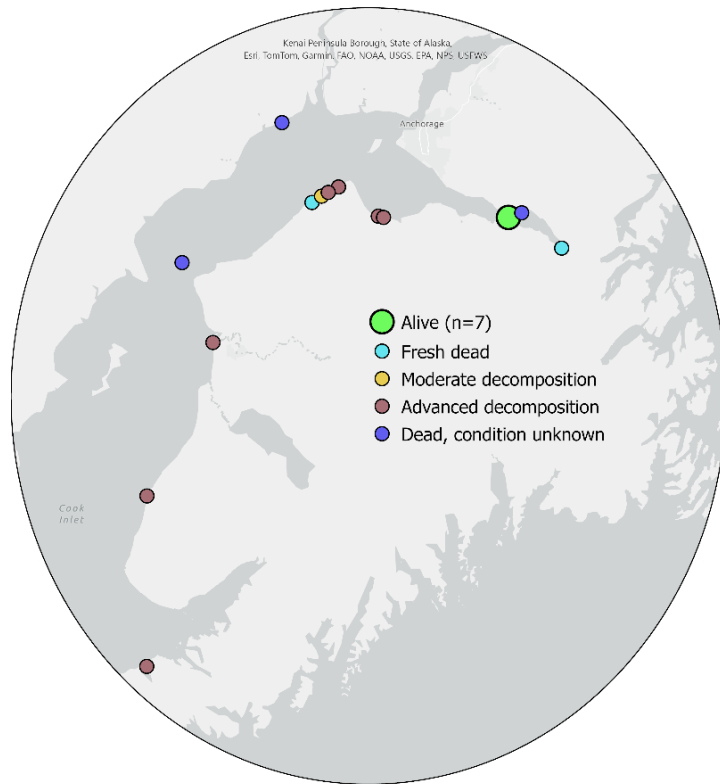


Figure 16. Location of stranded Cook Inlet beluga whales by condition at initial observation.

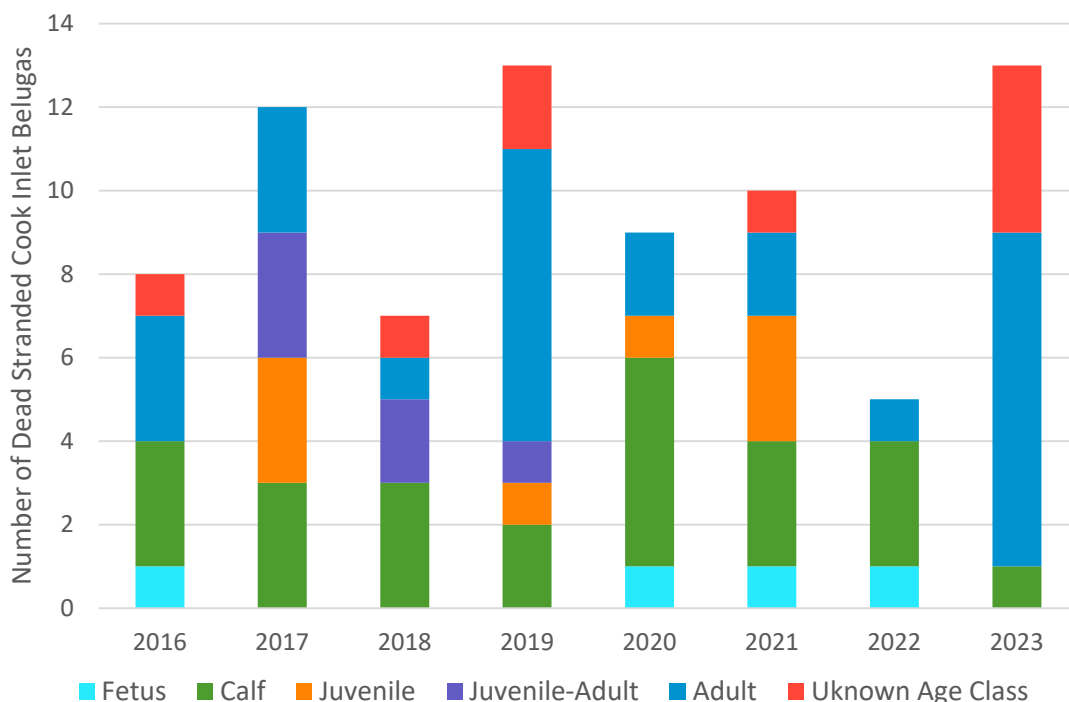


Figure 17. Bar graph of dead stranded Cook Inlet beluga whales by age class and year (2015-2023).



Cook Inlet beluga whale (2023294) observed from a helicopter in Chickaloon Bay (NOAA Permit No.24359)

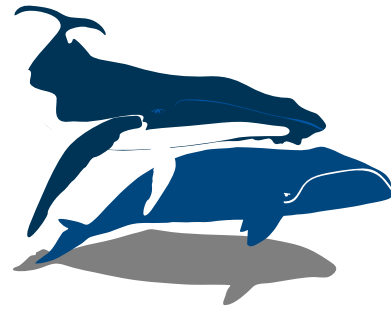


Cook Inlet beluga whale (2023295) necropsied by Alaska Veterinary Pathology Services (NOAA permit No. 24359)



## Large Whales

Large whales include all baleen whale species plus the largest toothed cetacean, the sperm whale. There were 56 large whale strandings in Alaska in 2023 (Table 6), the most common of these humpback whales (n=28) and gray whales (n=11). The gray whale UME continued in 2023 and was closed on November 9, 2023. Gray whales carcasses were observed in all subareas of Alaska, following their migratory route to the Arctic feeding grounds (Figures 18, 19).



For some strandings, only photos were available to assess the large whale carcasses and decomposition state and/or photo quality did not allow for identification of species or condition. These carcasses were classified to the lowest taxonomic group including unidentified balaenoptera (baleen whale with throat pleats and not a humpback whale, e.g., fin, blue, sei, or minke whale), unidentified rorqual (baleen whale with throat pleats, but cannot determine which species), or unidentified mysticete (Table 6, Figure 20).

Table 6. Stranding of large whales by species in 2023 compared to the 10-year average (2013-2022) for the Alaska Region.

	Confirmed Stranding Reports 2023	10-Year Average $\pm$ Standard Deviation (range)
Bowhead whale	4	$7 \pm 5$ (1 – 15)
Fin whale	1	$4 \pm 4$ (1 – 14)
Gray whale	11	$23 \pm 13$ (10 – 48)
Humpback whale	28	$19 \pm 7$ (10 – 31)
Minke whale	1	$2 \pm 1$ (1 – 5)
Unidentified Balenopterid	2	-
Unidentified rorqual	1	-
Unidentified mysticete	6	$4 \pm 3$ (1 – 10)
Sperm whale	2	$2 \pm 1$ (1 -4)



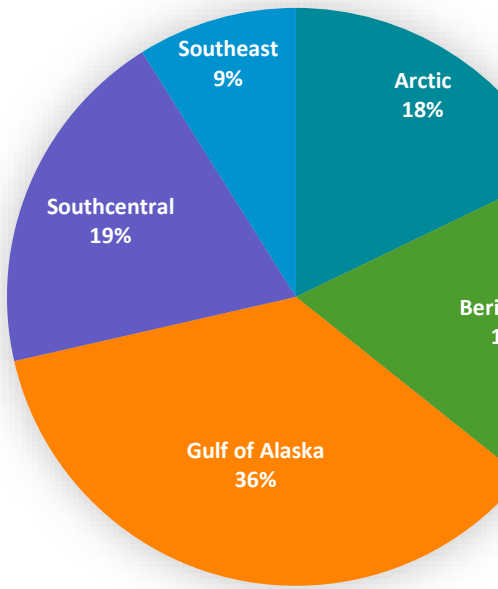


Figure 18. Pie chart of large whale strandings by subarea.

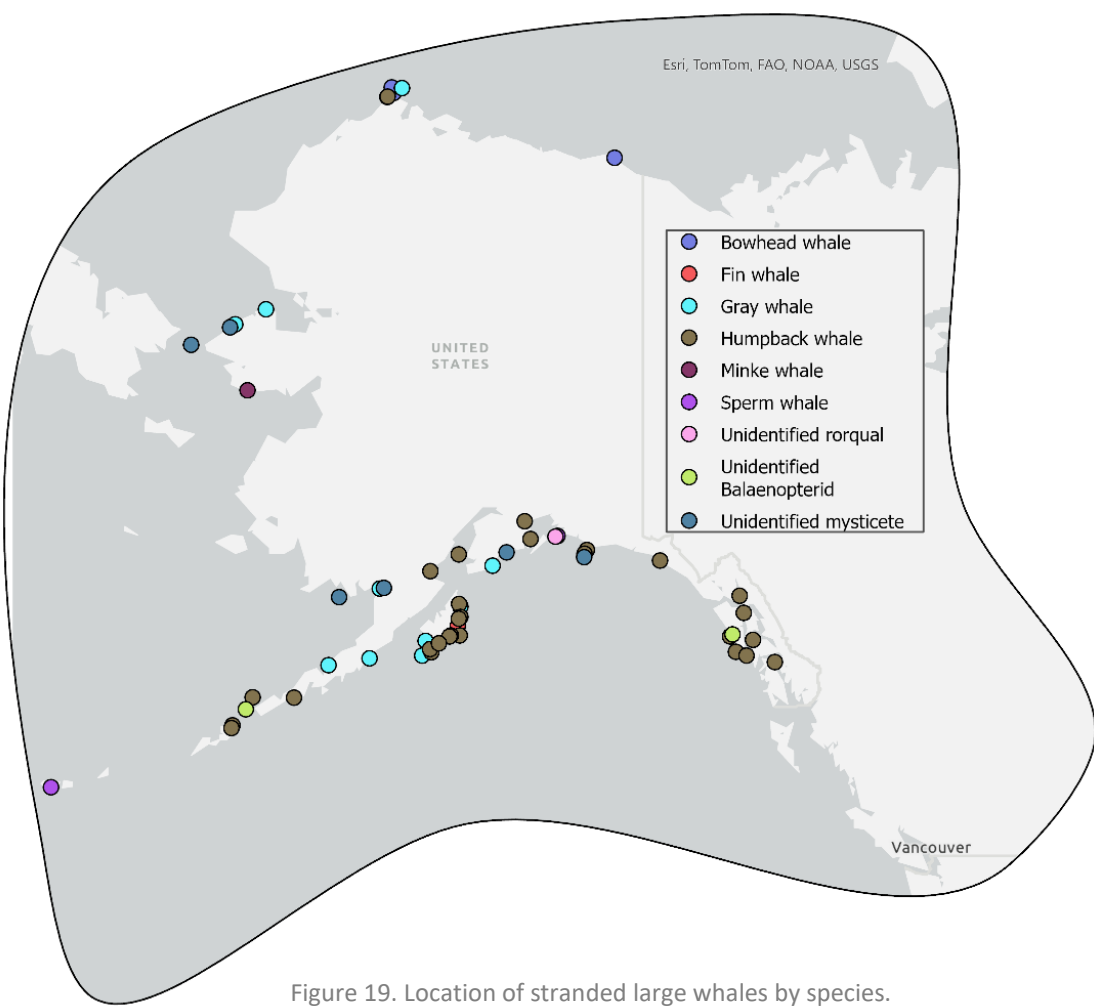


Figure 19. Location of stranded large whales by species.

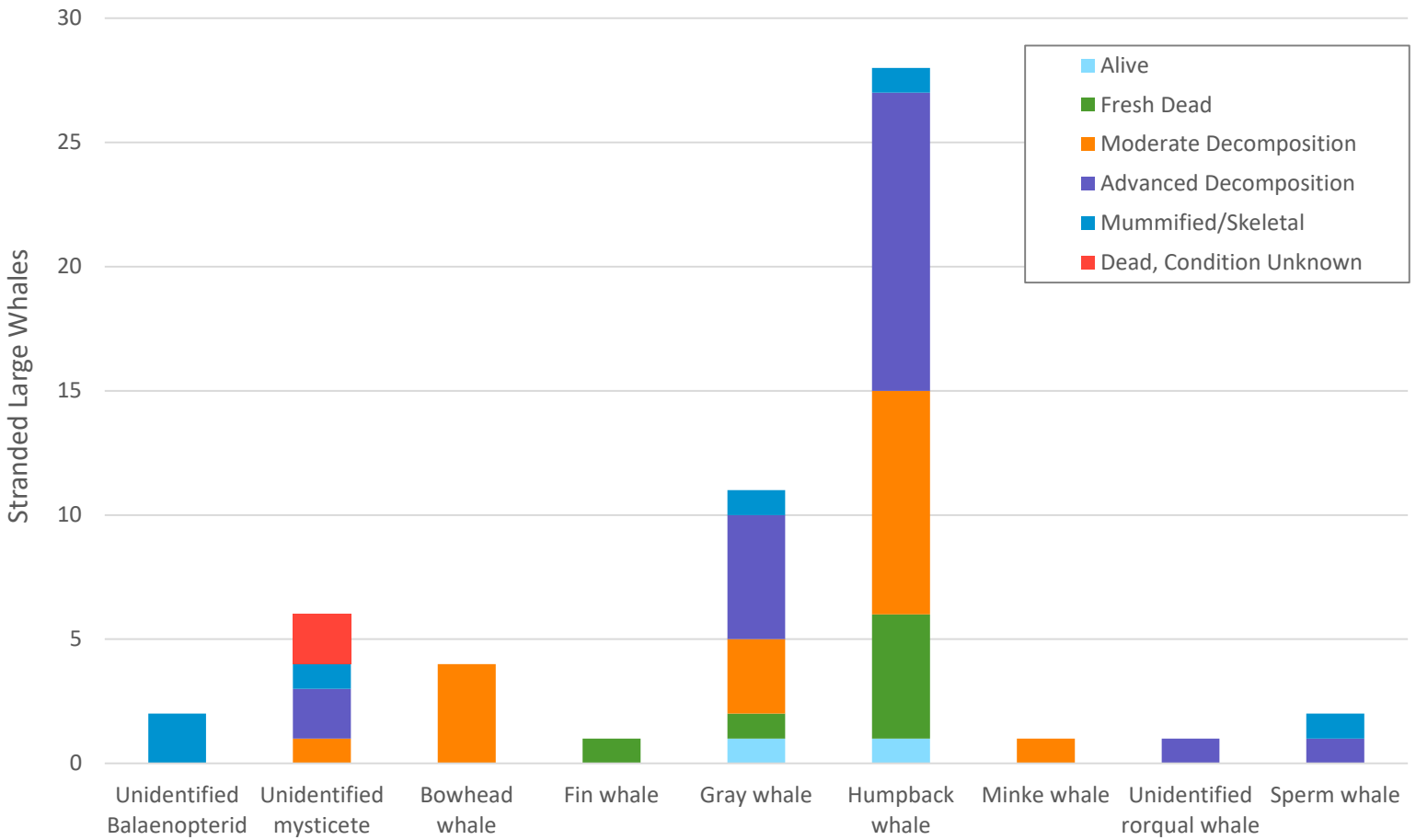


Figure 20. Condition at initial observation of stranded large whales by species or lowest taxonomic group.



# Gray Whale Unusual Mortality Event

The [Unusual Mortality Event \(UME\)](#) involving stranded [eastern North Pacific gray whales](#) along the western coast of North America was declared on December 17, 2018 and was closed on November 9, 2023. There were 146 stranded gray whales in Alaska during this UME. Two skeletal gray whales were observed in 2020 and determined to likely pre-date the declaration of the UME and are not included in this summary. No gray whale strandings were reported in 2018 after the UME was declared. Most strandings were reported between May and September each year of the UME (Figure 21). Annual gray whale strandings during the UME ranged between 48 whales in 2019 and 11 whales in 2023.

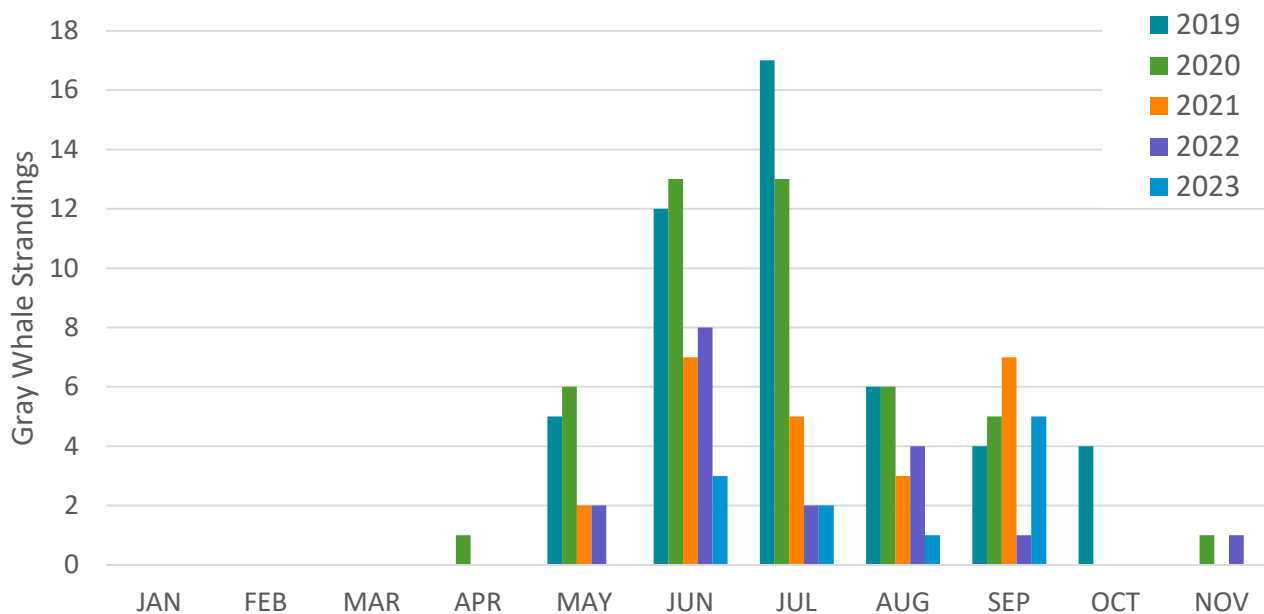


Figure 21. Gray whale strandings in Alaska by month and year over the course of the UME.

As part of the UME investigation, the Alaska Region coordinated dedicated carcass surveys in Nome, Sitka, and Kodiak Island (Table 7). Many of these surveys were supported by the USCG. Aerial surveys were dependent on weather, and the availability of aircraft and biologists.

Table 7. Dedicated carcass surveys and gray whale carcasses observed during the surveys by year and geographic location.

	Kodiak		Sitka		Nome	
	Survey	Gray whale carcasses	Survey	Gray whale carcasses	Survey	Gray whale carcasses
2019	2	2	-	-	2	-
2020	7	10	1	-	1	-
2021	9	5	1	-	6	-
2022	4	3	1	-	3	3
2023	6	3	1	-	-	-

Note: only gray whale carcasses are reported here, other marine mammals including unidentified cetaceans were observed during some surveys but are not included.

The remote location of most gray whale strandings (Figure 22) prevented a response and only photos a provided by the public were available. Most carcasses moderate or advanced decomposition state (Figure limited the samples that could be collected when th response. These factors contributed to the high pro unknown sex (Table 8) and unknown age class of gr carcasses in Alaska during the UME.

The UME involving stranded eastern North Pacific gray whales along the western coast of North America closed. The UME Investigative Team concluded that the preliminary cause of this UME was localized ecosystem changes in the whale’s subarctic and Arctic feeding areas that led to changes in food, malnutrition, decreased birth rates, and increased mortality. All these factors were documented during the gray whale UME.

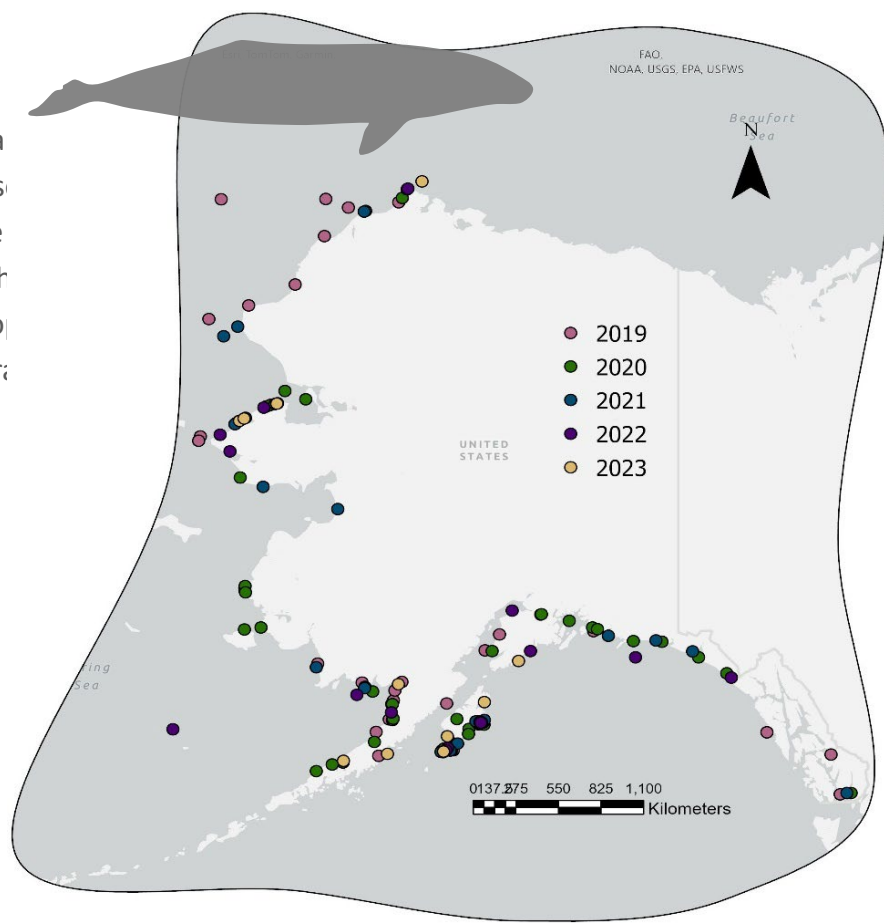


Figure 22. Location of gray whale strandings in Alaska by year during the UME.

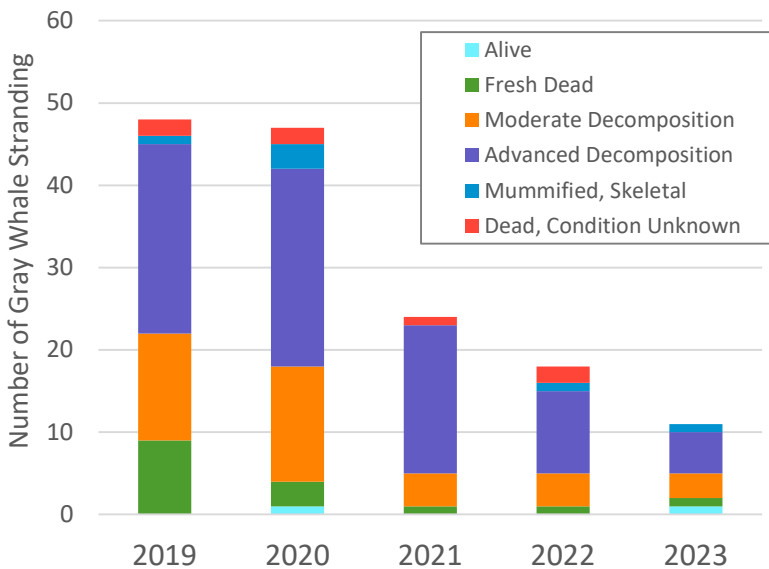


Figure 23. Gray whales by condition at initial observation during the UME by year. Note both live gray whales (2020, 2023) were later observed dead.

Table 8. Stranded gray whales in Alaska by sex during the UME.

	2019	2020	2021	2022	2023
Female	10	6	3	1	-
Male	11	20	9	8	3
Unknown	27	19	12	9	8
	48	45	24	18	11



Gray whale (2020005) Hooper Bay



# Threats to Cetaceans

## Vessel Strike

There were seven confirmed reports of vessel strikes involving live baleen whales (6 humpback whales, 1 unidentified whale) in Alaska in 2023. The majority of vessel strikes (n=6) occurred in Southeast Alaska with one report occurring in Prince William Sound (Figure 24). These reports were either self reported by the vessel operator (n=5) or by witnesses (n=2). The whales' condition after these vessel strikes were unknown. A live humpback whale (SEAK-5490) was observed during an entanglement response on October 11th with healing propeller marks. Based on sighting history, the injury was acquired between August 15 and October 11, 2023.

One humpback whale carcass (2023228, "Tango") had evidence of both blunt force and sharp trauma as a result of a vessel strike. The calf had previously been photographed by researchers in the Juneau area with evidence of three previous strikes from small vessels.

## Entanglements

There were nine dead stranded cetaceans with evidence of entanglements, including entanglement scars or gear on the animal. A tenth cetacean (Pacific white-sided dolphin) was reported alive within a net and released with an unknown outcome (Figure 25). One beached gray whale carcass (2023051) had gear present and was observed on July 17th on Kodiak Island. This whale was initially reported alive and entangled on June 1, 2023 near Ragged Island, Resurrection Bay (see Live, large whale entanglement section).

The most common stranded cetacean entanglements were harbor porpoises in set nets (n=4) followed by one Pacific white-sided dolphin and one killer whale caught by research surveys. There was one gray whale carcass with a rope of unknown source, and one humpback whale carcass with entanglement scars but no other gear observed.

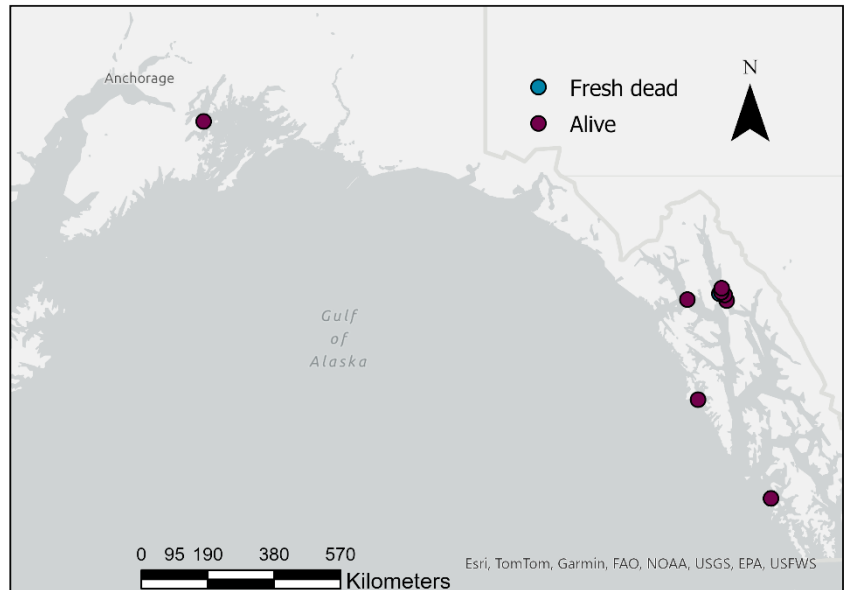


Figure 24. General location of vessel strikes of baleen whales including 7 live whales and 1 fresh dead humpback whale.

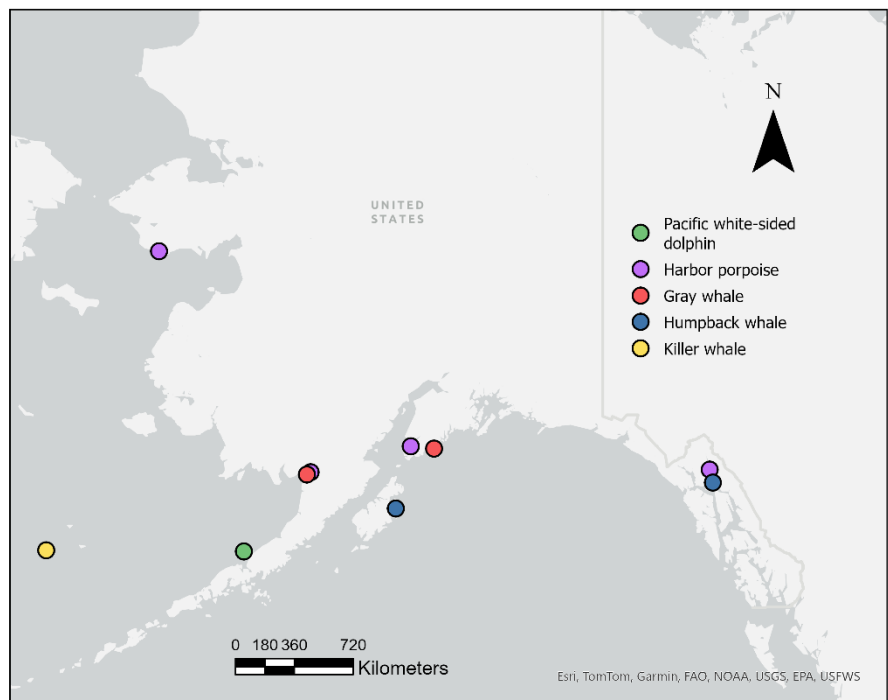


Figure 25. General location of the nine dead cetaceans and one live Pacific white-sided dolphin with evidence of entanglements by species.

## Live, Entangled Large Whales

Ten live entangled large whales were reported to the NOAA Alaska Large Whale Entanglement Response Program (Figure 26). These reports are not included in the numbers or summaries of stranded marine mammals. Although on-water disentanglement efforts were not possible for all live large whale entanglement cases (e.g., remote locations, weather, or uncertainty of the whale's location), responders fully disentangled three humpback whales and partially disentangled two humpback whales. One live entangled gray whale was later observed dead on Kodiak Island with gear still attached.

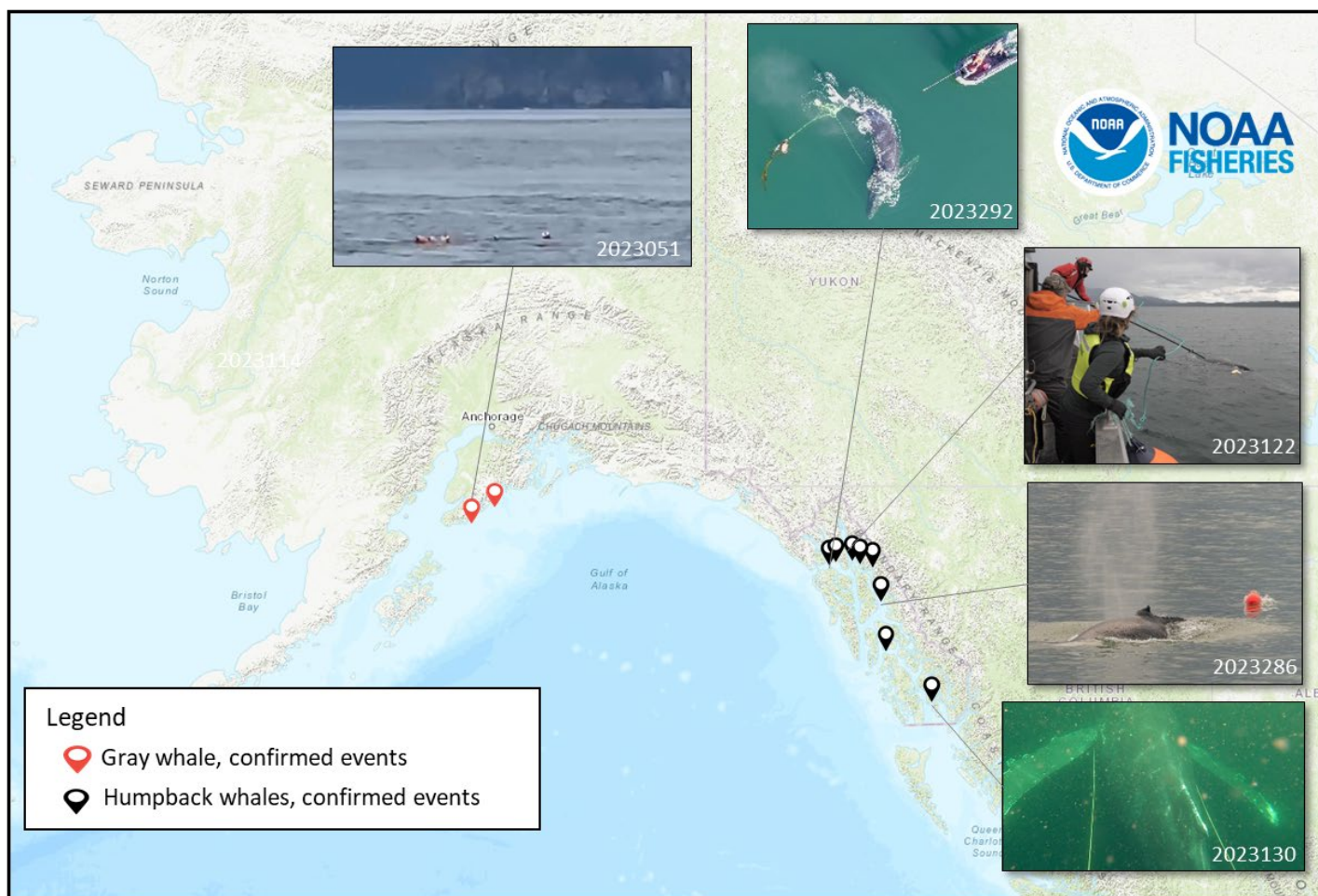


Figure 26. Map showing the locations of the 10 live large entangled whales reported in 2023.

The most commonly observed entanglement for live large whales was line and buoy ( $n=4$ ), followed by crab pot entanglements ( $n=3$ ), and it is possible that some entanglements identified as line and buoy entanglements originated from pot gear. Other gear types observed that entangled large whales consisted of mooring line ( $n=1$ ), gillnet ( $n=1$ ), and a crab ring ( $n=1$ ).



## **2023 Alaska Region Stranding Agreement Holders**

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

## **109(h) Federal, State and Local Officials**

- Alaska Department of Fish and Game
- Alaska State Troopers
- Yakutat Ranger District, Tongass National Forest
- NOAA Fisheries Alaska Region Protected Resources Division





## What can the Public Do?

Report all dead, injured, distressed, or entangled marine mammals to:

**1-877-925-7773**

24-Hour Stranding Hotline

DO



For your safety and that of the marine mammal, keep people and dogs away.



Take photos from as many angles as possible without getting too close.

### Report:

**ANIMAL ID:** species, size, color, and if alive, its behaviors or vocalizations.

**ANIMAL STATUS:** Is the animal dead or alive? If alive, is it lethargic, emaciated, injured or entangled? If dead, does it look like it died recently, is it rotten, or just skin and bones?

**LOCATION:** GPS coordinates are best, but naming the bodies of water, landmarks and/or beach accessibility are helpful. Is the animal on shore or in the water?

**SCIENTIFIC MARKINGS:** Note the color, location, and shape of any tags or brands on the animal.

DON'T



Move, touch, or disturb the animal, even if dead.



Try to drive animal back into the water.



Pour water on or attempt to feed.



Approach within 100 yards or attempt to respond to entangled marine mammals without specific authorization from NOAA Fisheries.



Sometimes it's not possible or safe to respond to a marine mammal stranding.



An abandoned harbor seal pup (2023053, PV2310) on the beach in Homer, Alaska prior to transportation to the Alaska SeaLife Center for rehabilitation (SA-AKR-2022-05)