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Resources

Only confirmed stranding activities involving species under the jurisdiction of NOAA Fisheries (cetaceans and pinnipeds, except walrus) are included in this report. All data were obtained, analyzed, and validated from the NOAA Fisheries National Marine Mammal Stranding Database. Any duplicate events, and entries of free-swimming entangled large whales, were removed from the following analyses.

Additional Information

This fact sheet provides a national overview. For additional details, please refer to the five supplemental 2018 regional overviews.

All images were taken prior to the COVID-19 pandemic.

Photo (top): Release of a young harbor seal rescued and rehabilitated by members of the U.S. Marine Mammal Stranding Response Network. **Photo:** Seacoast Science Center and National Marine Life Center.



2018 Report of Marine Mammal Strandings in the United States: National Overview

Executive Summary

In 2018, there were 7,320 confirmed marine mammal strandings documented in the United States involving species under NOAA Fisheries' jurisdiction: cetaceans (whales, dolphins, and porpoises) and pinnipeds (seals and sea lions).

Marine mammals strand for a variety of reasons. Results from examinations and necropsies (animal autopsies) show common causes of strandings include: disease; harmful algal blooms and associated biotoxins; injuries due to vessel collisions; entanglements, or from other human interactions such as gunshots; malnutrition; marine debris (entanglement or ingestion); pollution exposure; or some combination of these factors. Some strandings may also be related to unusual weather or oceanographic events. Additionally, in many cases the cause(s) of a stranding remains undetermined, especially when carcasses are found in advanced states of decomposition. This report provides an overview of marine mammal stranding activities in the United States for calendar year 2018.

A "stranding" occurs when a marine mammal is either:

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

The U.S. Marine Mammal Stranding Response Network



Photo (above): Responders collect biological samples from a dead common bottlenose dolphin that stranded in Florida. Photo: Hubbs-SeaWorld Research Institute.

The U.S. Marine Mammal Stranding Response Network (National Stranding Network) is comprised of more than 120 organizations that provide first response capabilities for cetaceans and pinnipeds that are sick, injured, in distress, in peril, or dead. Some organizations also rehabilitate live stranded cetaceans and pinnipeds. The overarching goals of the National Stranding Network are to:

- Provide for the welfare of live animals;
- Investigate the causes of mortalities;
- Minimize risks to public health and safety;
- Obtain important scientific information on marine mammal health, life history, and natural history;
- Advance public education; and
- Enhance the conservation and management of wild populations and, in turn, our marine ecosystems.

The organizations that make up the National Stranding Network are authorized and overseen by the Marine Mammal Health and Stranding Response Program (MMHSRP), which is part of the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) Office of Protected Resources. NOAA Fisheries has jurisdiction over all cetacean and pinniped species, except walrus. The MMHSRP—formalized through an amendment to the Marine Mammal Protection Act (MMPA) in 1992—focuses on four primary areas:

1. Coordinating the stranding and entanglement response networks, including the management of data collected;
2. Leading Unusual Mortality Event (UME) responses and investigations;
3. Conducting and supporting biosurveillance and baseline marine mammal health research; and
4. Supporting stranding and entanglement response networks through administration of the John H. Prescott Marine Mammal Rescue Assistance Grant Program.

Every marine mammal stranding event is unique and poses different challenges. Organized stranding response by highly trained and authorized personnel best

serves the well-being of the stranded animals, and helps manage risks to public health and safety. The majority of responses to stranding events by the National Stranding Network involve relatively abundant species such as common bottlenose dolphins (*Tursiops truncatus*), gray whales (*Eschrichtius robustus*), harbor seals (*Phoca vitulina*), and California sea lions (*Zalophus californianus*). Although these species are not listed as threatened or endangered under the Endangered Species Act (ESA), the information and experience gleaned from these cases helps monitor population health trends and keeps the National Stranding Network organizations well trained and prepared for emergency events involving ESA-listed species such as Cook Inlet beluga whales (*Delphinapterus leucas*), Guadalupe fur seals (*Arctocephalus townsendi*), Hawaiian monk seals (*Neomonachus schauinslandi*), North Atlantic right whales (*Eubalaena glacialis*), and Southern Resident killer whales (*Orcinus orca*).

Live animals that are able to be rescued and rehabilitated provide additional valuable information on the biology, physiology, and health of those species. The National Stranding Network's primary goal is to always return live-stranded and rehabilitated animals to the wild when it is safe to do so for that individual animal and the wild populations. In some cases, such as when injuries are severe or the overall prognosis is poor, euthanasia is the most humane course of action for the welfare of the animal. The decision to euthanize an animal is never approached lightly and all other options are considered, in consultation with veterinary professionals, prior to making a decision. The euthanasia procedure is conducted humanely, respectfully, and efficiently by experienced and qualified personnel in consultation with NOAA Fisheries and in accordance with approved veterinary methods.

Necropsies of dead animals provide valuable insight into causes of mortality, life history (age and reproductive status), disease and contaminant exposure, physiology, and the population health of animals that cannot be readily observed in the wild. For some species, the only information available about their biology and natural history has been gained from stranded specimens. Data collected from live or dead stranded animals can also provide important information regarding human impacts on marine mammals such as interactions between marine mammals and fisheries, vessels, marine debris, or the effects of pollution (oil spills, contaminants, and heavy metals). The National Stranding Network provides data to the MMHSRP using a standardized reporting form, and these data are stored in the [National Stranding Database](#). Data collected from stranding responses help NOAA Fisheries monitor and understand wild marine mammal stocks and populations, as well as make informed decisions for their management and conservation. The information the National Stranding Network collects on human interaction cases can become important evidence in law enforcement cases, and Network members are trained to follow strict "chain of custody" protocols to assist investigations.

Since stranded marine mammals are large, wild, and unpredictable animals that might have been exposed to disease or contaminants, all stranding responses prioritize human safety to ensure National Stranding Network members avoid injuries. Over the past several decades, the MMHSRP has worked with the National Stranding Network to develop and update Best Practices to follow in the field based on lessons learned and the advancing husbandry techniques.



Photo (above): Trained response volunteers from The Marine Mammal Center in Sausalito, CA, attempt a dock rescue on a sick California sea lion. Photo: Clive Beavis/The Marine Mammal Center.

National Overview

Marine Mammal Health Threats



Environmental Degradation and Ecosystem Change

- Climate and ecosystem change
- Habitat degradation, including contaminants (e.g., toxic chemicals, heavy metals, etc.)



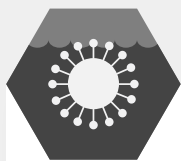
Ocean Noise and Disturbance

- Acoustic disturbance
- Energy exploration
- Ocean and vessel noise



Fisheries Impacts

- Direct interactions/competition with fisheries
- Effects of fisheries on prey
- Entanglement in active or derelict fishing gear (i.e., "bycatch")



Disease

- Biotoxins
- Pathogens (e.g., viruses, bacteria, parasites)



Predator-Prey Dynamics

- Predation
- Prey availability



Pollution

- Chemical contaminants
- Oil spills
- Marine debris



Vessel Interactions

- Vessel harassment
- Vessel strikes



Direct Human Take

- Illegal feeding, harassment, and disturbance
- Illegal human-caused mortality (including illegal shooting)

What Type of Marine Mammals Strand in the United States?

There are 66 species of marine mammals found in the jurisdictional waters of the United States, all of which are protected by the MMPA, and all of which may strand. Marine mammals are classified into four different taxonomic groups: cetaceans (whales, dolphins, and porpoises); pinnipeds (seals, fur 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 (U.S. FWS) oversees the management of manatees, sea otters, walruses, and polar bears. This report only includes data for species under the jurisdiction of NOAA Fisheries.

Pinnipeds

All pinnipeds come ashore (on land or ice) to rest, breed, nurse and rear pups, molt, or avoid predators. When pinnipeds are observed sick, injured, in distress, or dead, the National Stranding Network responds to provide care, including rehabilitation in some cases, or to examine the carcass. The five most frequently stranded pinniped species nationwide in 2018 (Table 1) were the harbor seal, California sea lion, gray seal (*Halichoerus grypus*), Northern elephant seal (*Mirounga angustirostris*), and Steller sea lion (*Eumetopias jubatus*).

Table 1: Most common pinniped species to strand nationally in 2018.

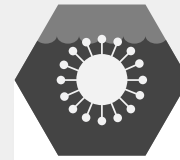
Species	Confirmed Stranding Reports 2018	12-Year Average \pm Standard Deviation ¹ (2006-2017)
Harbor Seal	2,144	1,146 \pm 120
California Sea Lion	1,854	2,346 \pm 1,202
Gray Seal	608	178 \pm 63
Northern Elephant Seal	437	437 \pm 97
Steller Sea Lion	126	126 \pm 25



Photo (above): Hawaiian monk seal RO40 “Ka’ena” has the unfortunate distinction of being the most frequently hooked seal. Photo: Angie Kaufman/Pacific Islands Fisheries Science Center.

¹ A standard deviation is a measure used to quantify the amount of variation within a set of values.

Main Health Threats for Pinnipeds



Disease

- Biotoxins
- Pathogens (e.g., viruses, bacteria, parasites)



Environmental Degradation and Ecosystem Change

- Climate and ecosystem change
- Habitat degradation, including contaminants (e.g., toxic chemicals, heavy metals, etc.)



Direct Human Take

- Human-caused mortality (including illegal shooting)
- Illegal feeding, harassment, and disturbance



Fisheries Impacts

- Direct interactions/competition with fisheries
- Entanglement in fishing gear or fishery debris

Harbor Seal² (*Phoca Vitulina*):**Weight:** Up to 285 pounds**Oceans:** Atlantic and Pacific**Status:** Not endangered**California sea lion (*Zalophus californianus*):****Weight:** Up to 700 pounds**Oceans:** Pacific**Status:** Not endangered**Gray seal (*Halichoerus grypus*):****Weight:** Up to 800 pounds**Oceans:** Atlantic**Status:** Not endangered**Northern elephant seal (*Mirounga angustirostris*):****Weight:** Up to 4,400 pounds**Oceans:** Pacific**Status:** Not endangered**Steller sea lion (*Eumetopias jubatus*):****Weight:** Up to 2,500 pounds**Oceans:** Pacific**Status:** Endangered (Western Pacific DPS³); not endangered (Eastern Pacific DPS)

² Species illustrations throughout this report are not to scale relative to each other.

³ A Distinct Population Segment (DPS) is a group of animals separate from, but related to, other populations of the same species.

Small Cetaceans

Small cetaceans are dolphins, porpoises, and the toothed species of whales (except sperm whales, *Physeter macrocephalus*). The small cetaceans found in U.S. waters have diverse life history patterns—some are solitary, others occur in large groups; some live in bays and estuaries, and some live far offshore. The five most frequently stranded small cetaceans nationally in 2018 (Table 2) were the common bottlenose dolphin, harbor porpoise (*Phocoena phocoena*), short-beaked common dolphin (*Delphinus delphis*), Atlantic white-sided dolphin (*Lagenorhynchus acutus*), and long-beaked common dolphin (*Delphinus capensis*).

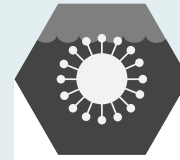
Table 2: Most common small cetacean species to strand nationally in 2018.

Species	Confirmed Stranding Reports 2018	12-Year Average \pm Standard Deviation ² (2006-2017)
Common Bottlenose Dolphin	851	799 \pm 326
Harbor Porpoise	152	201 \pm 38
Short-beaked Common Dolphin	100	139 \pm 90
Atlantic White-sided Dolphin	47	29 \pm 21
Long-beaked Common Dolphin	35	50 \pm 18



Photo (above): Response to a dead common bottlenose dolphin entangled in a pound net. Photo: Virginia Aquarium.

Main Health Threats for Small Cetaceans



Disease

- Biotoxins
- Pathogens (e.g., viruses, bacteria, parasites)



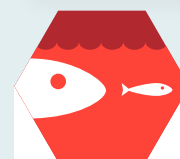
Environmental Degradation and Ecosystem Change

- Climate and ecosystem change
- Habitat degradation, including contaminants (e.g., toxic chemicals, heavy metals, etc.)



Fisheries Impacts

- Direct interactions/competition with fisheries
- Entanglement in fishing gear (i.e., "bycatch")



Predator-Prey Dynamics

- Predation
- Prey availability

Common bottlenose dolphin (*Tursiops truncatus*):**Weight:** Up to 1,400 pounds**Oceans:** Atlantic, Gulf of Mexico, and Pacific**Status:** Not endangered***Harbor porpoise (*Phocoena phocoena*):*****Weight:** Up to 170 pounds**Oceans:** Atlantic and Pacific**Status:** Not endangered***Short-beaked common dolphin (*Delphinus delphis*):*****Weight:** Up to 170 pounds**Oceans:** Atlantic and Pacific**Status:** Not endangered***Atlantic white-sided dolphin (*Lagenorhynchus acutus*):*****Weight:** Up to 500 pounds**Oceans:** Atlantic**Status:** Not endangered***Long-beaked common dolphin (*Delphinus capensis*):*****Weight:** Up to 500 pounds**Oceans:** Pacific**Status:** Not endangered

Large Whales

Large whales are all of the baleen whales plus the largest toothed whale, the sperm whale. Nationally, the five most commonly stranded large whales in 2018 (Table 3) were the humpback whale (*Megaptera novaeangliae*), gray whale, minke whale (*Balaenoptera acutorostrata*), sperm whale, and fin whale (*Balaenoptera physalus*).

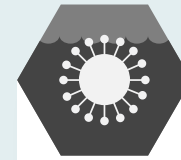
Table 3: Most common large whale species to strand nationally in 2018.

Species	Confirmed Stranding Reports 2018	12-Year Average \pm Standard Deviation ² (2006-2017)
Humpback Whale	63	50 \pm 19
Gray Whale	46	31 \pm 9
Minke Whale	38	15 \pm 8
Sperm Whale	11	10 \pm 4
Fin Whale	9	8 \pm 3



Photo (above): A vessel struck minke whale on the bow of a vessel moored in the Newark Container Terminal, New Jersey. Photo: United States Coast Guard.

Main Health Threats for Large Whales



Disease

- Biotoxins
- Pathogens (e.g., viruses, bacteria, parasites)



Environmental Degradation and Ecosystem Change

- Climate and ecosystem change
- Habitat degradation, including contaminants (e.g., toxic chemicals, heavy metals, etc.)



Fisheries Impacts

- Direct interactions/competition with fisheries
- Entanglement in fishing gear (i.e., "bycatch")



Vessel Interactions

- Vessel harassment
- Vessel strikes

Humpback whale (Megaptera novaeangliae):

Weight: Up to 40 tons

Oceans: Atlantic, Gulf of Mexico, Pacific

Status: Endangered/threatened (some Pacific subpopulations); not endangered (Atlantic subpopulations)



Gray whale (Eschrichtius robustus):

Weight: Up to 45 tons

Oceans: Pacific

Status: Endangered (Western North Pacific population); not endangered (Eastern North Pacific population)



Minke whale (Balaenoptera acutorostrata):

Weight: Up to 10 tons

Oceans: Atlantic, Gulf of Mexico, Pacific

Status: Not endangered



Sperm whale (Physeter macrocephalus):

Weight: Up to 45 tons

Oceans: Atlantic, Gulf of Mexico, Pacific

Status: Endangered



Fin whale (Balaenoptera physalus):

Weight: Up to 80 tons

Oceans: Atlantic, Gulf of Mexico, Pacific

Status: Endangered



A Species in Severe Decline



North Atlantic Right Whale (*Eubalaena glacialis*)

The North Atlantic right whale, a NOAA Fisheries “Species in the Spotlight,” is one of the world’s most endangered large whale species, with fewer than 350 individuals⁴ remaining and fewer than 100 breeding females. In the spring, summer, and into the fall, many of these whales can be found in waters off New England and further north into Canadian waters, where they feed and mate. Each fall, some individuals migrate along the East Coast of North America to calving grounds off the southeastern United States. NOAA Fisheries has designated two areas of critical habitat along the U.S. coast, which provide important feeding, nursery, and calving habitat. The population has been in decline since 2010; in 2017, an Unusual Mortality Event (UME) was declared after several deaths were documented in the United States and Canada. **In 2018, three North Atlantic right whales were reported dead to the National Stranding Network and five were reported seriously injured.**⁵ The loss of any one individual could have negative impacts on an already critically endangered population where deaths are outpacing births. **Since 2017, North Atlantic right whales have experienced an ongoing UME, and as of the end of 2018, 27 individual right whales (20 confirmed dead, 7 seriously injured) were included in the UME for the two-year period (2017 and 2018 combined).** Entanglement in fishing gear and vessel strikes are the leading causes of serious injuries and mortalities. NOAA Fisheries and our partners are dedicated to conserving and rebuilding the North Atlantic right whale population. The UME continued past 2018; for more information on the current status of the North Atlantic right whale UME, please visit:

<https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event>



Photo (left): An endangered North Atlantic right whale seen in poor health off Jekyll Island, Georgia; determined to be seriously injured, this individual was included in the ongoing Unusual Mortality Event. Photo: Clearwater Marine Aquarium Research Institute.

⁴ For the most recent estimates, please see: <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale>.

⁵ The MMPA requires NOAA Fisheries to distinguish between injuries to marine mammals that are serious and those that are non-serious. Serious injury determination is a detailed assessment process that uses data, such as body condition and parameters of the human-caused injury, collected from living whales to determine an individual whale’s prognosis for survival. A serious injury designation indicates a whale is likely to die from those injuries (although it was alive at its last sighting).

Comparing Confirmed Stranding Reports in 2018 to Past Years

In most cases, a stranded marine mammal is observed by a member of the public, who reports it to a member of the National Stranding Network via a hotline call (or by notifying local emergency services). A National Stranding Network member then responds to confirm, document, and take the appropriate actions (as resources allow). In 2018, there were 7,320 confirmed marine mammal strandings nationwide. This number is comparable to the 12-year (2006–2017) average (n= 6,268 + 1,250), a time period over which national effort remained relatively consistent (Figure 1). Of the confirmed reports in 2018, 78 percent involved pinnipeds, 19 percent involved small cetaceans, and 3 percent involved large whales. Sometimes carcasses were too decomposed to classify animals to species, or the location of the stranding limited access to, and close examination and recovery of, the carcass. These animals were categorized as “unknown cetacean.” In 2018, <1 percent of stranded animals were classified as an unknown cetacean.

The high number of strandings reported in Figure 1 for 2009, 2013, 2015, and 2018 can generally be attributed to increased strandings of live and dead animals connected with oceanographic changes or UMEs that occurred in these years. In 2018, there were several new and ongoing UMEs (Table 4); the elevated stranding numbers for pinnipeds (Figure 1 and Figure 2) were driven by an infectious disease outbreak of Phocine distemper virus (PDV) affecting primarily harbor and gray seals in the Northeast.

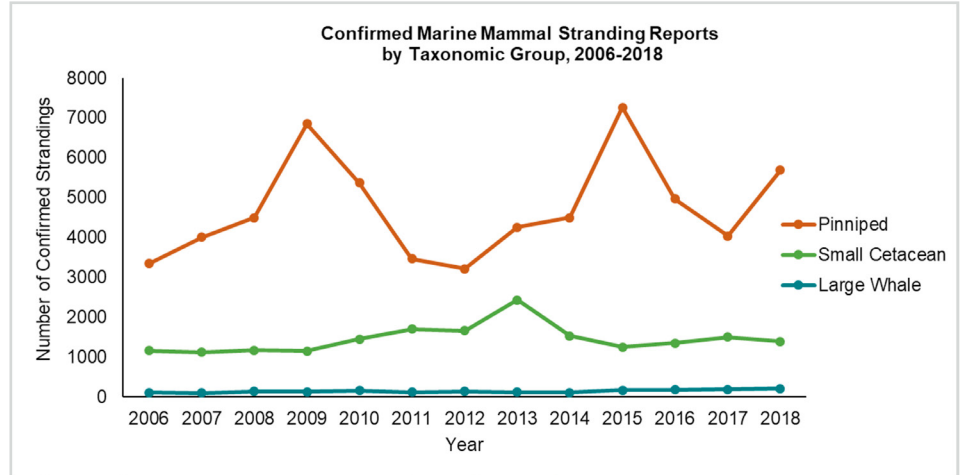


Figure 1: Confirmed marine mammal stranding reports nationwide by taxonomic group, 2006–2018. In 2018, confirmed stranding reports increased for pinnipeds and large whales as compared to recent years, whereas there was a slight decline for small cetaceans.

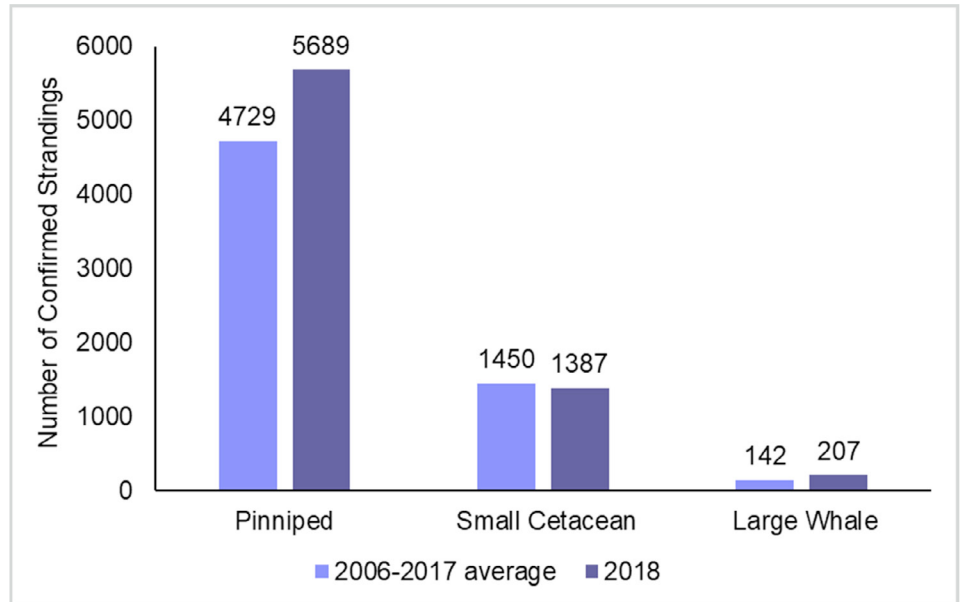


Figure 2: Nationwide stranding summary. In 2018, an additional 37 dead stranded marine mammals were classified as an “unknown cetacean.”

Unusual Mortality Events

Marine mammal strandings that are “unexpected, involve a significant die-off of any marine mammal population, and demand immediate response” are defined as UMEs under the MMPA. There are seven criteria that define when a mortality event is “unusual,” and the Working Group on Marine Mammal Unusual Mortality Events determines if an event meets at least one of the UME criterion, after which NOAA Fisheries may formally declare the event as an official UME. Understanding and investigating marine mammal UMEs is crucial because these events can serve as indicators of ocean health, giving insight into larger environmental or anthropogenic issues. Since 1991, NOAA Fisheries has documented UMEs along the U.S. coasts of the Atlantic and Pacific oceans, including the Gulf of Mexico, Alaska, and Hawaii. In recent years, increased efforts to examine carcasses and live-stranded animals have improved the knowledge of mortality rates and causes, allowing a better understanding of population threats and stressors, and the ability to determine when a situation is “unusual.” In 2018, three new UME investigations were declared and three were ongoing from previous declarations for marine mammal species under the jurisdiction of NOAA Fisheries (Table 4; an additional UME was ongoing for Florida manatees, under U.S. FWS jurisdiction). More information about UMEs is available at:



<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-unusual-mortality-events>

Table 4: Marine mammal UMEs occurring in the United States during calendar year 2018.

Year Declared	UME Name	Number of Animals to Strand in 2018	UME Total (from Declaration Through 12/31/2018)	Body of Water/Location	Preliminary Cause
2019 ⁶	Alaska Ice Seal	112	112	Bering and Chukchi Seas	Undetermined
2018	Southwest Florida Bottlenose Dolphin	134	134	Gulf of Mexico	Biotoxin
2018	Northeast Pinniped	~1,416	~1,416	Atlantic Ocean	Infectious Disease
2018 ⁷	Atlantic Minke Whale	30	57	Atlantic Ocean	Suspect Human Interaction (Entanglement)/ Infectious Disease
2017 (ongoing)	North Atlantic Right Whale	U.S. = 3 dead; 3 seriously injured Canada = 2 seriously injured	U.S. = 8 dead; 4 seriously injured Canada = 12 dead; 3 seriously injured	Atlantic Ocean, Canada and U.S.	Human Interaction (Vessel Strike/Rope Entanglement)
2017 ⁸ (ongoing)	Atlantic Humpback Whale	25	85	Atlantic Ocean	Suspect Human Interaction (Vessel Strike)
2015 (ongoing)	Guadalupe Fur Seal	45	282	Pacific Ocean, California	Ecological Factors

⁶ This UME was not formally declared until 2019; however, elevated ice seal strandings occurred in the Bering and Chukchi seas beginning in June 2018 (and these animals were included as part of the UME investigation).

⁷ This UME was not formally declared until 2018; however, elevated minke whale strandings occurred in the Atlantic Ocean beginning in January 2017 (and these animals were included as part of the UME investigation).

⁸ This UME was not formally declared until 2017; however, elevated humpback whale strandings occurred in the Atlantic Ocean beginning in January 2016 (and these animals were included as part of the UME investigation).

Featured Unusual Mortality Event: North Atlantic Right Whale



Photo (above): A North Atlantic right whale carcass is towed to shore for necropsy. Photo: Virginia Aquarium

NOAA Fisheries declared an UME for the North Atlantic right whale in 2017 throughout their range, following elevated mortalities along the U.S. Atlantic coast and Canada. The investigation is still ongoing; however, preliminary results from necropsied animals indicate “human interactions” as a leading cause since the majority of cases involved whales that died from either entanglements or vessel strikes. Additionally, several live animals have been documented as seriously injured by either vessel strikes or entanglements, and are therefore included in the UME numbers. Despite mitigation measures to reduce vessel and fisheries interactions in both the United States and Canada, 27 individuals (20 confirmed dead, 7 seriously injured) were included in this UME as of the end of 2018.

NOAA Fisheries continues to work closely with National Stranding Network members and other scientific partners

who are studying the North Atlantic right whale population, and together we are monitoring changes in whale distribution and habitat use to better understand the spatial and temporal overlap between boaters, fishermen, and whales. We also work with partners in the fishing industry and mariners to identify and implement additional protective measures. Ocean users are reminded to keep an eye out for whales and remember to follow safe viewing guidelines and regulations, which include staying at least 500 yards away from North Atlantic right whales for your safety as well as theirs.

The UME continued past 2018; for more information on the current status of the North Atlantic right whale UME, please visit:

<https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event>

Evidence of Human Interaction

Although animals may strand due to natural causes, some strandings are caused by human interactions. These interactions can be accidental or deliberate, can inflict severe pain and suffering to individual animals, and can have detrimental impacts on marine mammal populations. In some cases, animals have evidence of past human interactions, which may or may not have played a role in the immediate stranding event. Entanglements in fishing gear or marine debris (including ingestion), interaction with vessels (including vessel strikes), excessive underwater noise, direct harm (e.g., gunshots), general harassment by people (e.g., feeding, touching, interacting with, or moving animals), and close proximity to unleashed pets are common examples of human-caused threats.

In 2018, there were 738 confirmed strandings where at least one type of human interaction was identified,⁹ accounting for roughly 10 percent of all reported animals. Of the individuals documented with evidence of human interaction (Figure 3), pinnipeds were affected by fishery interactions (e.g., entanglement in gear or scars, ingested gear), and a number of individuals (n=61) were found with gunshot wounds. A large proportion of small cetaceans also had injuries consistent with fishery interactions, and three presented evidence of gunshot wounds. Large whales had wounds consistent with both fishery and vessel strikes (e.g., propeller scars, bruising, fractures, internal bleeding). One gray whale was also found with gunshot wounds in Alaska. Note that for the data in this report, presence of human interaction does not necessarily mean that the interaction was the cause of stranding or death; these interactions could have been incidental to the stranding or from the past (such as healed scars).

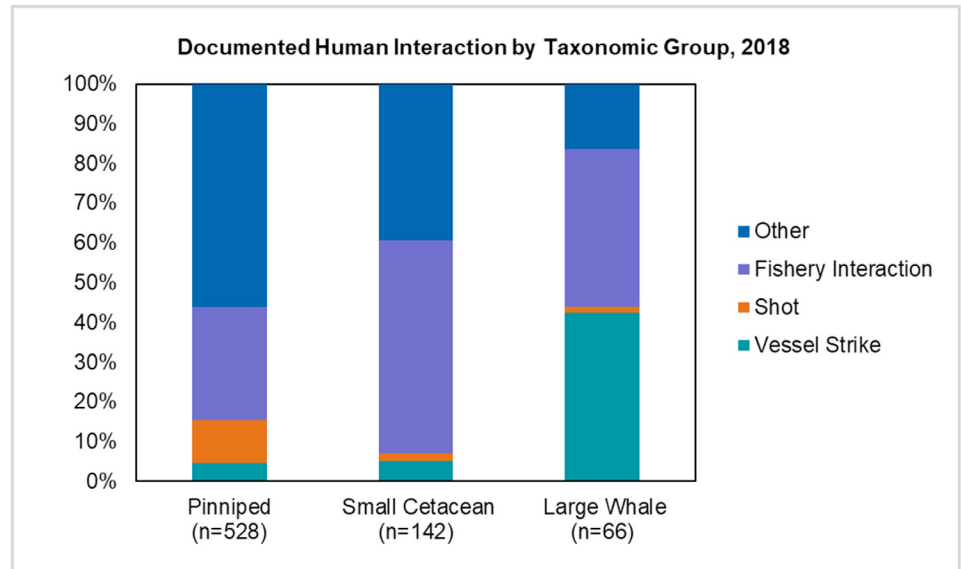


Figure 3: Number of confirmed strandings with at least one human interaction documented in 2018 (n=738). Two dead stranded marine mammals, classified as “unknown cetacean,” are not shown above. 52 animals (7 percent) exhibited more than one type of human interaction at time of stranding.

Photo (right): A humpback whale photographed off the southern California coast with deep wounds following a vessel strike. Photo: SeaWorld San Diego.



⁹ Documented human interaction cases in 2018 (n=790); 52 animals exhibited more than one type of human interaction at time of stranding.

Rehabilitation and Release of Stranded Marine Mammals



Photo (above): A malnourished Northern elephant seal pup undergoing rehabilitation is transported for a medical examination in one of The Marine Mammal Center's "Sealbarrows." Photo: Bill Hunnewell/The Marine Mammal Center.

Some National Stranding Network organizations are authorized to rehabilitate live-stranded marine mammals with the primary goal of returning animals back to the wild once healthy. Pinnipeds are the most common candidates for rehabilitation since they are relatively small and live partially on land, making them easier to care for than cetaceans, and there are facilities on both the East and West coasts that specialize in pinniped care and treatment. Since cetaceans live entirely in water, fewer facilities nationwide can accommodate them, and none are equipped to provide care for adult large whales. Regulations require a marine mammal in rehabilitation be released within six months unless an attending veterinarian determines the release is unlikely to be successful due to physical condition and behavior of the animal, more time is needed for assessment and medical treatment, or the release might adversely affect wild populations.

In 2018, 1,648 animals were rehabilitated nationwide (Figure 4). Stranded animals in poor health sometimes die on their own or are euthanized in rehabilitation depending on the seriousness of their medical condition. Occasionally, a rehabilitated marine mammal might be deemed non-releasable due to behavioral, ecological, and/or medical concerns that have made them unlikely to survive in the wild. The MMHSRP and NOAA Fisheries' Permits and Conservation Division work with marine mammal public display or research facilities to place non-releasable animals in permanent managed care for the individual animal's continued welfare. More information on NOAA Fisheries' non-releasable policy can be found at:

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/non-releasable-marine-mammals>

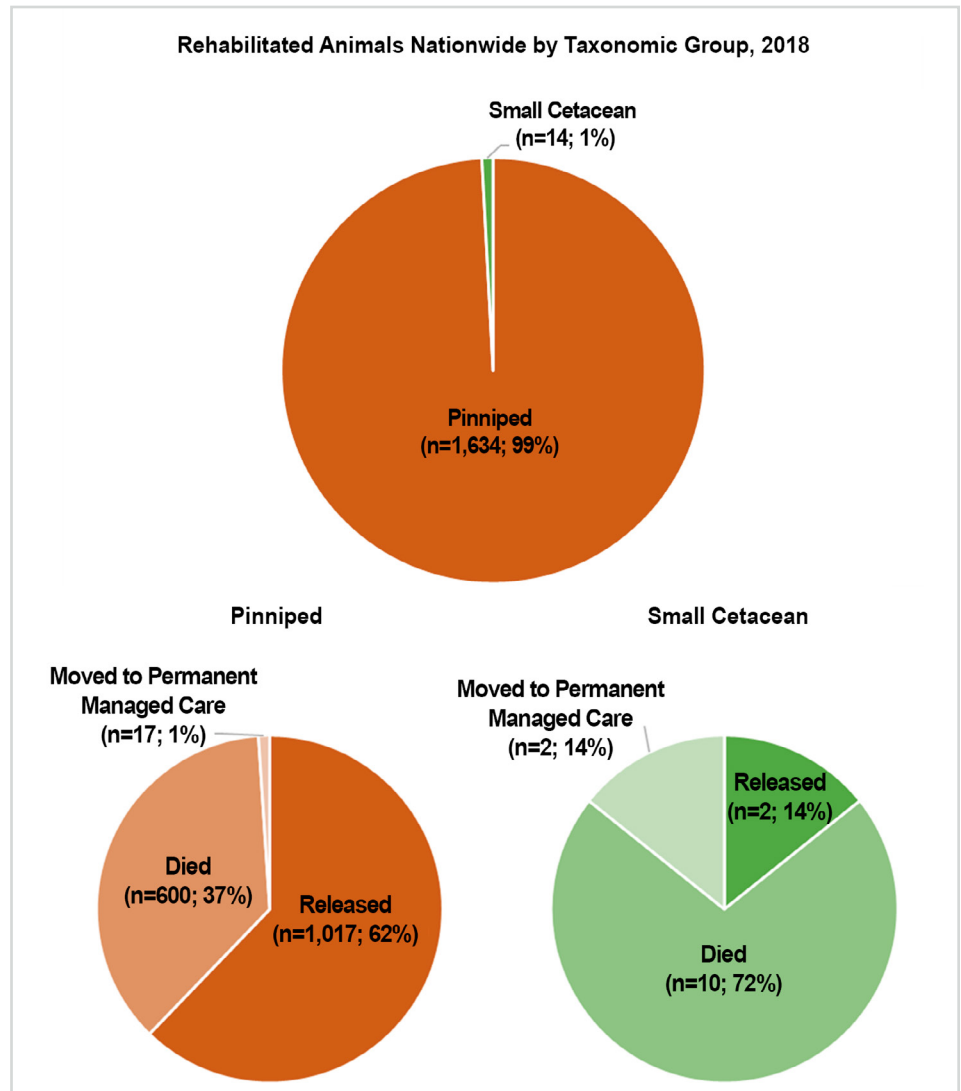


Figure 4: Number of animals rehabilitated nationwide at facilities authorized by NOAA Fisheries, 2018.

Regional Differences and National Standards

The National Stranding Network is comprised of highly skilled and trained individuals from professional organizations, including aquaria, for-profits, government agencies, higher education institutions, museums, non-profits, and tribes. These organizations are authorized under the MMPA to respond to and rehabilitate stranded marine mammals, either through Stranding Agreements issued by NOAA Fisheries or in their capacity as federal, state, or local governments. The MMHSRP has developed a national template for Stranding Agreements that outlines the responsibilities of NOAA Fisheries as well as the Stranding Agreement holder. Depending on available resources, technical expertise, and experience, organizations may be authorized for dead marine mammal response, live animal response and transport, live animal rehabilitation, or a combination of all three roles. Trained National Stranding Network members conduct the on-the-ground activities required to safely respond to marine mammal strandings and are committed to animal welfare and education. Often faced with challenging circumstances, trained National Stranding Network members are responsible for making decisions that ensure appropriate care is provided to stranded animals.

Each of NOAA Fisheries' five jurisdictional regions (Figure 5) has a Regional Stranding Coordinator and/or Regional Stranding Administrator, who processes and administers Stranding Agreements and coordinates stranding response within their region: Alaska Region (AKR), Greater Atlantic Region (GAR; Maine through Virginia), Pacific Islands Region (PIR; Hawaii, Guam, the Northern Mariana Islands, and American Samoa), Southeast Region (SER; North Carolina through Texas, Puerto Rico, and U.S. Virgin Islands), and West Coast Region (WCR; California, Oregon, and Washington). Marine mammal strandings vary widely across the United States (Table 5), and can fluctuate within the same geographical area between years (Figure 6). There are regional differences in the species, abundance, and distribution of marine mammals most likely to strand, in the frequency and seasonality of stranding events, and in the likelihood of detection and reporting of stranding events. In light of these regional differences, national standards and protocols have built in regional flexibility to enable local and nuanced implementation.

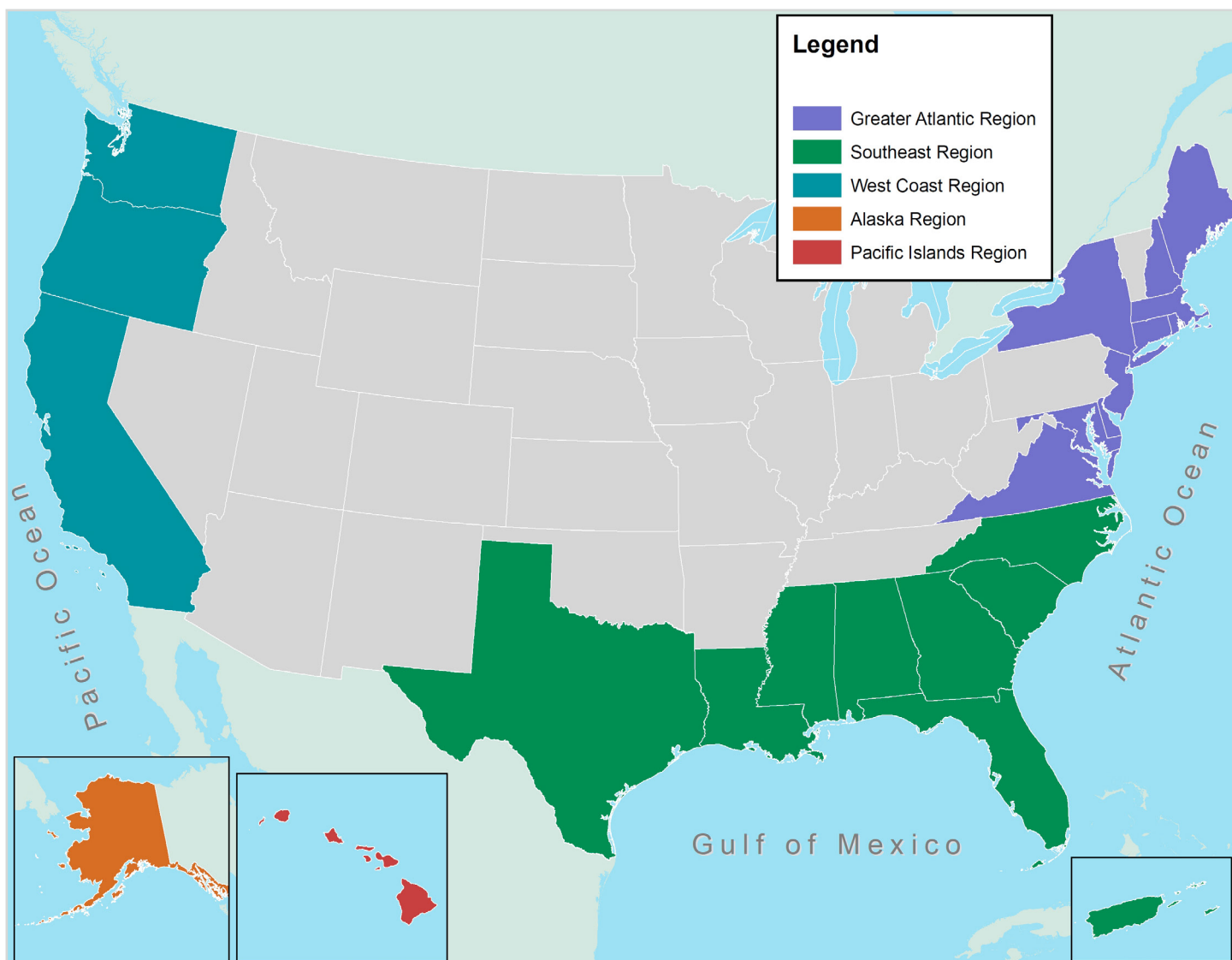


Figure 5: NOAA Fisheries' five jurisdictional regions.

Table 5: Nationwide stranding summary by region for 2018.

2018 Strandings	WCR	GAR	SER	AKR	PIR	Total
Pinnipeds	3,253	2,193	12	203	28	5,689
Small Cetaceans	202	356	780	42	7	1,387
Large Whales	54	74	11	52	1	207
Unknown Cetacean	5	10	9	28	0	37
Total Strandings	3,514	2,633	812	325	36	7,320
(% of National Total)	(48%)	(36%)	(11%)	(4%)	(1%)	-

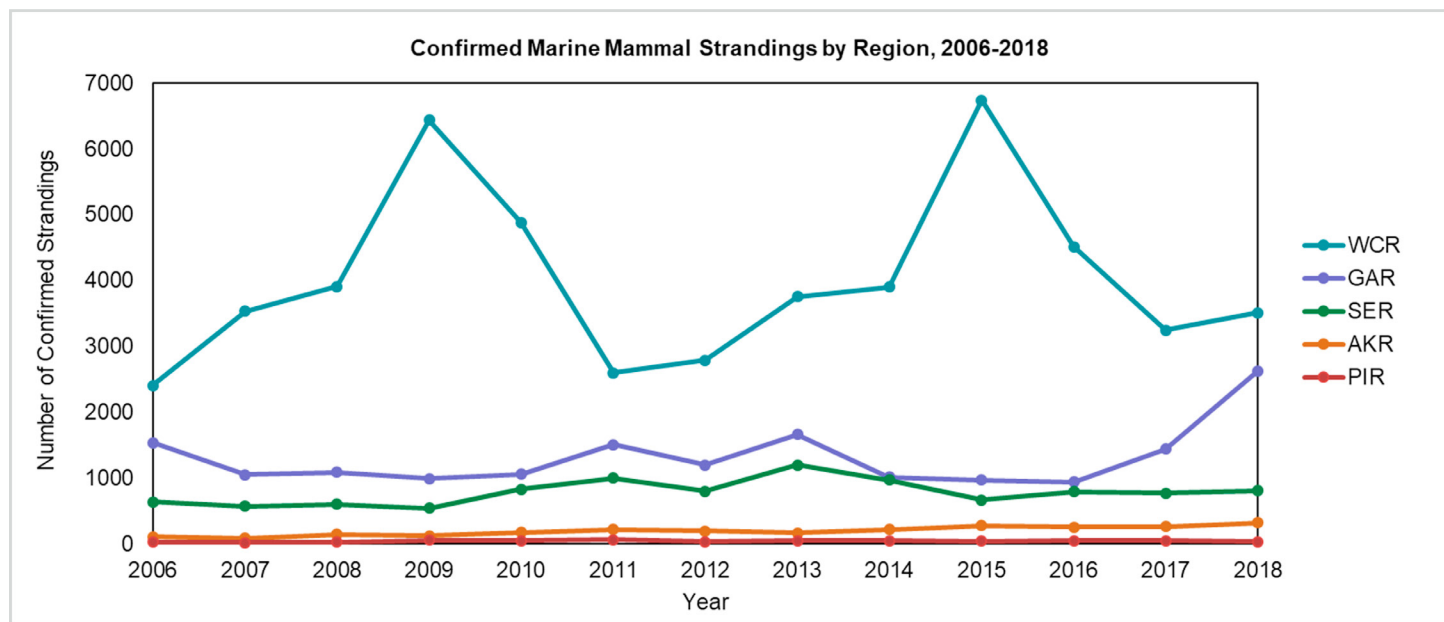


Figure 6: Confirmed marine mammal strandings by region from 2006 to 2018. In 2018, strandings in most regions remained level as compared to recent years; WCR and GAR stranding totals increased.



Photo (above): Dead stranded humpback whale in Cape Henlopen State Park, Delaware. Photo: Marine Education, Research and Rehabilitation Institute.

What Can Members of the Public Do?



Regional 24/7 Hotline

The Marine Mammal Health and Stranding Response Program relies on reports of stranded marine mammals by the public. If you come across a stranded marine mammal please report it to your regional 24/7 hotline.

<i>Alaska:</i>	<i>(877) 925-7773</i>
<i>Greater Atlantic:</i>	<i>(866) 755-6622</i>
<i>Pacific Islands:</i>	<i>(888) 256-9840</i>
<i>Southeast:</i>	<i>(877) 942-5343</i>
<i>West Coast:</i>	<i>(866) 767-6114</i>



Photo (above): An endangered Hawaiian monk seal resting inside the Papahānaumokuākea Marine National Monument. Photo: Mark Sullivan/Pacific Islands Fisheries Science Center.

Report a Stranding

When reporting a stranded marine mammal, please include the following information:

- Date
- Location of stranding (including latitude and longitude)
- Number of animals
- Condition of the animal (alive or dead)
- Species (if known)

Photos or videos (from a safe and legal distance of 100 yards, unless greater restrictions apply) can also provide valuable information

to Network responders. Only trained and permitted responders should approach or pick up a stranded marine mammal. You can also download the Dolphin & Whale 911 Stranding App in the Apple Store to help report a stranding.

Get Involved

The National Stranding Network relies on government, private, and public support to conduct its vital work to save animals in distress and understand causes of injuries and mortalities. You can make a difference by contacting your local Stranding Network (list available at: <https://www.fisheries.noaa.gov/report>) to see how you can get involved.

**Marine Mammal Health and Stranding Response
Program Marine Mammal and Sea Turtle
Conservation Division
Office of Protected Resources**



NOAA FISHERIES



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Only trained and permitted responders should approach or pick up a stranded marine mammal.

U.S. Secretary of Commerce

Gina M. Raimondo

Under Secretary of Commerce for
Oceans and Atmosphere

Richard W. Spinrad, Ph.D.

Assistant Administrator for Fisheries

Janet L. Coit

March 2022

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Only confirmed stranding activities involving species under the jurisdiction of NOAA Fisheries (cetaceans and pinnipeds, except walrus) are included in this report. All data were obtained, analyzed, and validated from the NOAA Fisheries National Marine Mammal Stranding Database. Any duplicate events, and entries of entangled large whales, were removed from the following analyses. All data and information described within this report are correct as of September 22, 2020 (when the data query of the National Stranding Database was performed). All photographs were taken under Stranding Agreement, Section 109(h) authority, or NMFS research permits.