NOAA FISHERIES

National Report on Large Whale Entanglements Confirmed in the United States in 2019

June 2022

National Marine Fisheries Service
Office of Protected Resources
Marine Mammal and Sea Turtle Conservation Division

Marine Mammal Health and Stranding Response Program

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Cover photo (background): An entangled humpback whale seen off Maui, Hawaii, on March 6, 2019. The entanglement looped through the whale's mouth and included more than 400 feet of line and a trap that weighed more than 66 pounds. This whale was partially disentangled by the Hawaii Large Whale Entanglement Response Network. Credit: Ed Lyman; Permit No. 18786-03.

Cover photo (circle): Responders practice throwing a grapple during training in Auke Bay, Alaska, in May 2019. Credit: NOAA/David Gann.

Introduction

In 2019, there were **75** confirmed entangled large whales documented along the coasts of the United States, with 68 cases involving live animals and seven cases involving animals that were dead (floating or stranded) when initially reported. All 75 whales were independently confirmed as entangled by members of the U.S. Large Whale Entanglement Response Network (Network), through photographic or video documentation, reports from multiple and/or experienced members of the on-water community, or through field responses. The number of confirmed cases for 2019 (n=75) does not include repeat reports of any individual entangled whale. NOAA Fisheries tracks subsequent reports of previously reported entangled whales to better understand the nature of the entanglement, associated injuries, and the animal's health status. The subsequent reports have been combined into a single record for the purposes of this summary to provide clarity on the number of entangled individuals.

Beyond the 75 cases, 10 additional cases were reported that could not be confirmed with the information received and the whales were not re-located by Network members; thus, those reports were tracked but are not included in the overall total. Therefore, this summary report represents a conservative estimate of the number of large whale entanglements detected in U.S. waters. Some of these entanglements may have originated in waters outside the United States, given that many large whale species travel long distances between their feeding and breeding grounds, and across international boundaries and oceans. Importantly, confirmed entanglements underestimate the true number of entangled whales, as many entangled whales go undetected. Moreover, the number of entanglements in any given year and the relative increases and decreases observed and confirmed by the Network may not be representative of true increases and decreases in entanglements, given that the number of confirmed entanglements is not a precise estimator of actual entanglements.[1] NOAA Fisheries' goal is to collect and identify entangling gear during each response in order to better understand the threats and work with industry and communities to reduce future entanglements. However, definitive identification of gear is not always possible.

Entangled large whales are always considered to be in distress and may be facing a life-threatening situation. Entanglements often interfere with swimming, feeding, breathing, or other vital functions. Severe entanglements can cause serious injuries and significant pain and suffering, and can lead to amputations of flippers or flukes and death. Response operations to remove entangling gear are mounted by the Network for humane and welfare reasons to provide relief to individually entangled animals. Response activities also collect and document important information on the nature of individual entanglements, the identity and source of the entangling gear, and which fishing gear and marine debris pose observable risks to the animals. Ultimately, response operations can have a significant positive impact on the conservation of these species, and have broader risk reduction benefits. All large whales are protected under the Marine Mammal Protection Act (MMPA) of 1972, and several species or populations are listed as threatened or endangered under the Endangered Species Act (ESA) of 1973. Although the majority of responses in 2019 involved species and/or populations in the United States that are no longer listed as threatened or endangered, each response attempt by the Network provides an important opportunity for responders to hone their skills and provide increased humane care when responding to threatened and endangered species (e.g., North Atlantic right whales, *Eubalaena glacialis)*, cases in which the disentanglement of an individual can be vital for the survival of their species.

1 Pace III, R.M., Williams, R., Kraus, S.D., Knowlton, A.R. and Pettis, H.M., 2021. Cryptic mortality of North Atlantic right whales. Conservation Science and Practice, 3(2), p.e346.

Responders from the Center for Coastal Studies in Provincetown, Massachusetts, work to disentangle a male 18 year old North Atlantic right whale (#3125; case #37 in the North Atlantic right whale Unusual Mortality Event). Credit: CCS; Permit No. 18786-04.

Comparing Confirmed Entanglements in 2019 to Past Years

The number of confirmed large whale entanglement cases nationwide in 2019 (n=75) is very similar to the average annual number of confirmed entanglements over the previous 12 years from 2007–2018 (n=73.6 ± 22.8; average ± one standard deviation). All NOAA Fisheries regions of the United States experienced a decrease or the same number of confirmed large whale entanglements in 2019 when compared to 2018 (Figure 1).

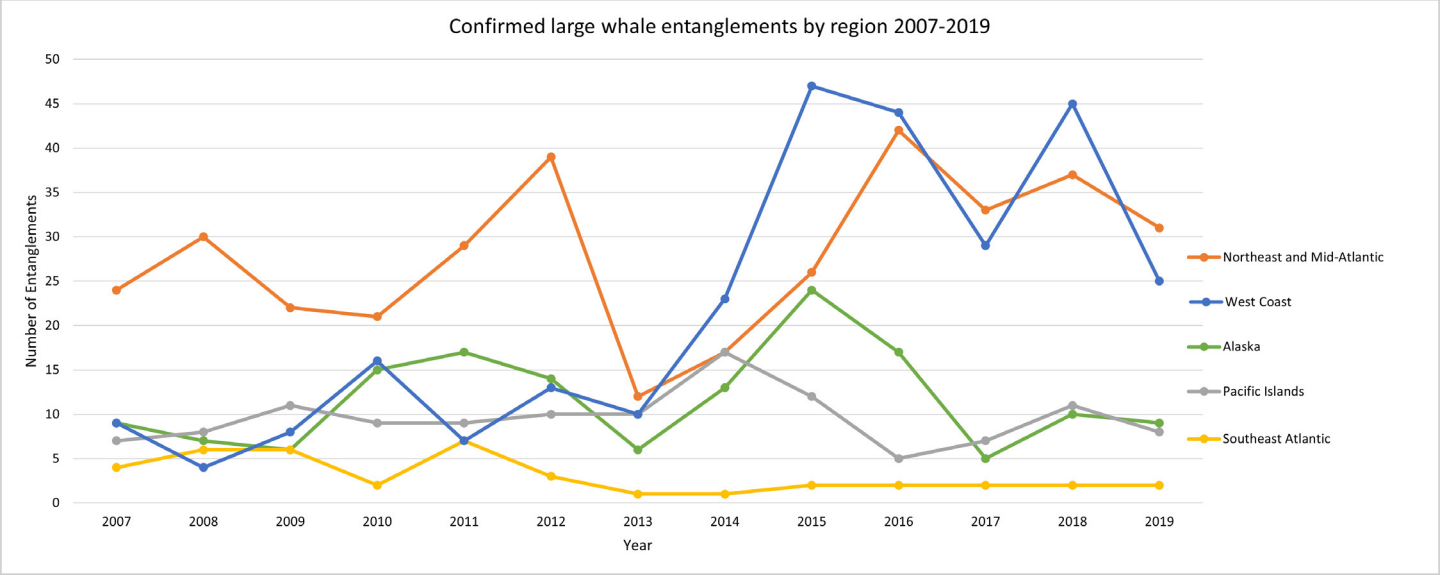


Figure 1. Confirmed large whale entanglements from 2007–2019. In 2019, most regions had a decrease in confirmed entanglements, with only one region (Southeast Atlantic) experiencing the same number of entanglements.

Entanglements by Whale Species

In 2019, five species of large whales had documented entanglements: humpback whales (*Megaptera novaeangliae*), gray whales (*Eschrichtius robustus*), minke whales (*Balaenoptera acutorostrata*), North Atlantic right whales, and fin whales (*Balaenoptera physalus*). This breakdown was similar to the most frequently entangled species in the past few years.

Humpback whale (n=53 in 5 Regions)

In 2019, the number of confirmed entanglements of humpback whales was similar to the 12-year average (Table 1). In the Pacific, 32 humpback whales were confirmed entangled, which is the same as the 12-year average for this ocean basin (32.2 ± 16.5). In the Atlantic, entanglements involving this species were a little higher than the average for this ocean basin (18.9 ± 9.2), with 21 confirmed entanglements in 2019.

Humpback whales are the most frequently reported entangled large whale species, representing 69 percent of all confirmed entanglements since 2007. Humpback whales are found in all the world's oceans and several populations have rebounded in recent years, so the frequency of entanglements reported involving this species could be due to the increasing number of whales, a high degree of overlap in the distribution of whales and fishing, and/or reporting effort, a combination of these factors, or some other unidentified factors. The U.S. MMPA protects all humpback whales, and the ESA provides additional protections for those populations listed as endangered or threatened. In U.S. waters, humpback whales in the western north Atlantic and Hawaii are no longer listed under the ESA but some humpback whales in the eastern north Pacific are still listed. An Unusual Mortality Event (UME) was declared for humpback whales in the North Atlantic in 2016 and is ongoing. Several of the whales that are included in the UME were determined to have died from entanglements, including one in 2019.

Table 1. Number of confirmed entanglements in 2019 and the 12-year average number of entanglements for each large whale species[2].

Species	2019	2007-2018 Average
Blue Whale	0	0.6 ± 1.1
Bowhead Whale	0	0.2 ± 0.4
Bryde's Whale	0	0.1 ± 0
Fin Whale	1	2.3 ± 1.9
Gray Whale	8	9.1 ± 4.2
Humpback Whale	53	50.8 ± 19.6
Minke Whale	8	5.4 ± 1.5
North Atlantic Right Whale	5	4.3 ± 2.6
Sei Whale	0	0.4 ± 0.5
Sperm Whale	0	0.3 ± 0.9
Unidentified Whale	0	2.1 ± 1.9

Gray whale (n=8 in 1 Region)

The number of confirmed gray whale entanglements in 2019 in U.S. waters was fewer than in recent years, but similar to the 12-year average for gray whales (Table 1). In the United States, gray whales only occur in the Pacific Ocean, and all confirmed entanglements this year were first reported along the coast of the West Coast Region (California, Washington, and Oregon). Most gray whales migrate between their summer foraging grounds off the coast of Alaska and their winter breeding grounds in Mexico, passing by Washington, Oregon, and California on each trip; however, a few gray whales have been reported in the Arctic and Gulf of Alaska in winter, and

2 Large whale species not listed in the table have never been documented with a confirmed entanglement in U.S. waters.

some remain in waters off of northern California, Washington, and Oregon during the summer. The eastern North Pacific population that is found along the U.S. West Coast and Alaska was delisted from the ESA in 1994, so they are not considered a threatened or endangered species. However, the western North Pacific population, typically found along the coast of Russia and Asia, is listed as endangered under the ESA and some individuals from that population have been documented in the eastern Pacific. Both populations of gray whales are protected under the MMPA. An UME was declared for gray whales in 2019 and is ongoing. Several of the whales that are included in the UME were determined to have died from entanglements, including two in 2019.

Minke whale (n=8 in 2 Regions)

The number of confirmed minke whale entanglements in 2019 in U.S. waters was higher than the 12-year average (Table 1). Although minke whales are present in both the Atlantic and Pacific Oceans, most confirmed entanglements in 2019 occurred in the Northeast. Seven of the eight confirmed minke whale entanglements were first reported along the coast of New England, in the Gulf of Maine, or along Long Island, New York. One minke whale was confirmed entangled near San Francisco, California. Minke whales are protected under the MMPA and are not listed under the ESA. An UME was declared for minke whales in the North Atlantic in 2017 and is ongoing. Several of the whales that are included in the UME were determined to have died from entanglements, including two in 2019.

Fin whale (n=1 in 1 Region)

The number of fin whale entanglements in 2019 in U.S. waters was the same as the number of entanglements in 2018, and slightly below the 12-year average (Table 1). Fin whales are present in both the Atlantic and Pacific Oceans, and the single confirmed fin whale entanglement was observed in Alaska. Fin whales are protected under the MMPA and are also listed under the ESA.

A Species in Severe Decline: North Atlantic Right Whales

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 individuals remaining and fewer than 100 breeding females. The loss of any one individual has 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 2019, 38 individual right whales (30 confirmed dead, 8 seriously injured) were included in the UME for the 3-year period (2017–2019).*** *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 2019; 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

North Atlantic right whale (n=5 in 1 Region)

The number of confirmed North Atlantic right whale entanglements in U.S. waters in 2019 (five) was higher than the number confirmed in 2018 (four), but close to the 12-year average (Table 1). All confirmed entanglements in 2019 were first reported in the Northeast. Of these five confirmed entanglements, one whale was found dead and entangled, three were partially disentangled (one eventually was confirmed self-released from the remaining entanglement), and one successfully self-released from the entanglement before responders could remove it. The United States confirmed North Atlantic right whale entanglements were close to the historic average, and the overall number of entanglements of this species remains of grave concern.[3] In addition to being protected under the MMPA, North Atlantic right whales are listed as endangered under the ESA because their population is small, with fewer than 350 individuals remaining, and the species continues to decline. Entanglements in fishing gear and vessel collisions are the two main threats impeding recovery of the species. NOAA Fisheries declared an UME for this species in 2017, which was ongoing throughout 2019, and also designated it a "Species in the Spotlight." The UME investigation has documented a high number of dead and seriously injured whales discovered in Canadian and U.S. waters, several of which were caused by entanglements, including one whale that died in 2019. Some North Atlantic right whales migrate from cold water feeding grounds to warm water breeding grounds (historically along the U.S. East Coast between New England and Canada and Georgia and northern Florida). This migration is physically demanding and, even if an entanglement is not life threatening, the stress and drag created by entangling gear may prevent females from successfully giving birth or delay reproduction (resulting in a skipped year or years between calves).[4] Given the critically endangered status of North Atlantic right whales and declining trend of the species, any entanglement is a major threat to the species' recovery.[5]

3 Sharp, S.M., McLellan, W.A., Rotstein, D.S., Costidis, A.M., Barco, S.G., Durham, K., Pitchford, T.D., Jackson, K.A., Daoust, P.Y., Wimmer, T. and Couture, E.L., 2019. Gross and histopathologic diagnoses from North Atlantic right whale (*Eubalaena glacialis*) mortalities between 2003 and 2018. Diseases of aquatic organisms, 135(1), pp.1-31.

4 van der Hoop, J., Corkeron, P. and Moore, M., 2017. Entanglement is a costly life-history stage in large whales. Ecology and evolution, 7(1), pp.92-106.

5 NMFS 2019. "US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2019" U.S. Dep. Commer., NOAA Tech. Memo. NMFS-NE-264.

Reported Locations of Confirmed Live Entangled Whales

In 2019, live large whale entanglements were reported and confirmed off the coast of 12 states and one U.S. territory. Over half of all confirmed entanglement reports of live whales were observed and reported off the coasts of two states: 24.6 percent off the coast of California (n=16) and 26.2 percent off the coast of Massachusetts (n=18). The entanglement reports confirmed off the coast of Massachusetts were concentrated along Cape Cod and Cape Cod Bay, and approximately two-thirds were humpback whales (n=12; Figure 2). Off the coast of California, a large number of entangled whales, primarily humpbacks, were observed off the coast of central and southern California, specifically Monterey Bay (n=6) and the Southern California Bight (n=6).

The location where an entangled whale is reported may be close to where the entanglement occurred, or it may be far removed from the location of the initial entanglement. Whales have been documented carrying entangling gear for thousands of kilometers and for many months, and even years. For example, fishing gear that was set off the coast of British Columbia, Canada was observed on one confirmed entangled whale that was reported off the coast of Hawaii in 2019. The whale became entangled while feeding off the coast of North America in the summer, and traveled with the entanglement to its winter breeding grounds off the coast of Hawaii. In another case, one North Atlantic right whale was first confirmed entangled in the Gulf of St. Lawrence in Canada. Over the course of a month, the whale slowly swam south, which allowed Canadian large whale entanglement responders to partially disentangle the whale over several days. This individual was later seen off the coast of Massachusetts, and members of the Network were able to remove more, but not all, of the remaining line. These cases highlight how large whale entanglements are an issue in many areas of the country, and may cross international boundaries. These cases also highlight the importance of the Network, as the data from these events (including gear identification) help NOAA Fisheries work with stakeholders across regions and countries to reduce the frequency and impacts of these events and coordinate responses. These data also show how ocean users (whale watchers, scientific researchers, fishermen, etc.) in particular geographic areas may help whales coast-wide, as the high number of observed and confirmed entanglement cases from these locations can be used to identify impacts from a much larger area.

Responders from the Center for Coastal Studies in Provincetown, Massachusetts, assist NARW #3125 (case #37 in UME) who had a severe mouth entanglement with broken baleen protruding from his mouth. Entanglements such as this one that involve a whale's mouth and damages its baleen are particularly problematic, as they may prevent the animal from effectively feeding, leading to starvation, even if the entangling gear is successfully removed. Credit: CCS; Permit No. 18786-04.

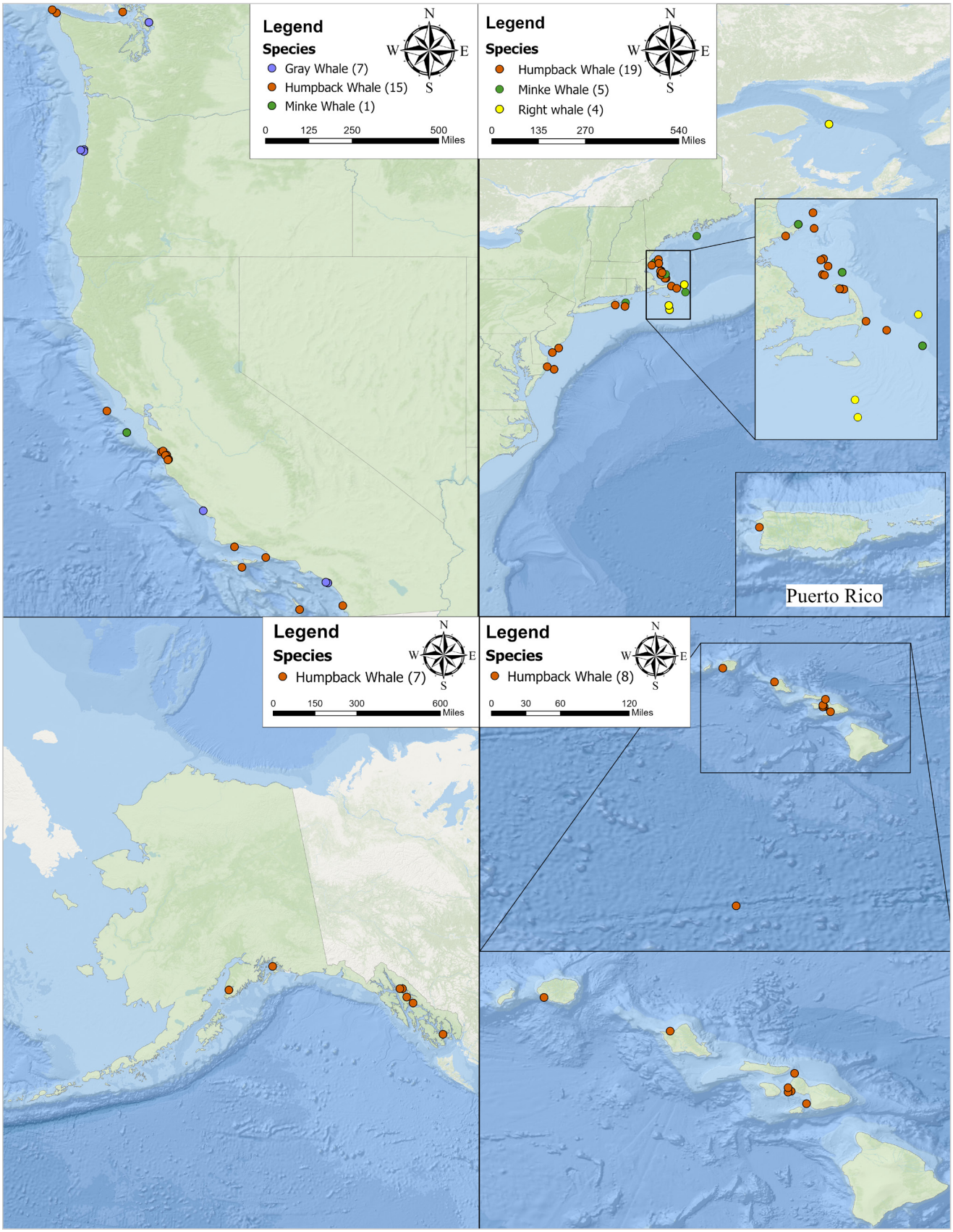
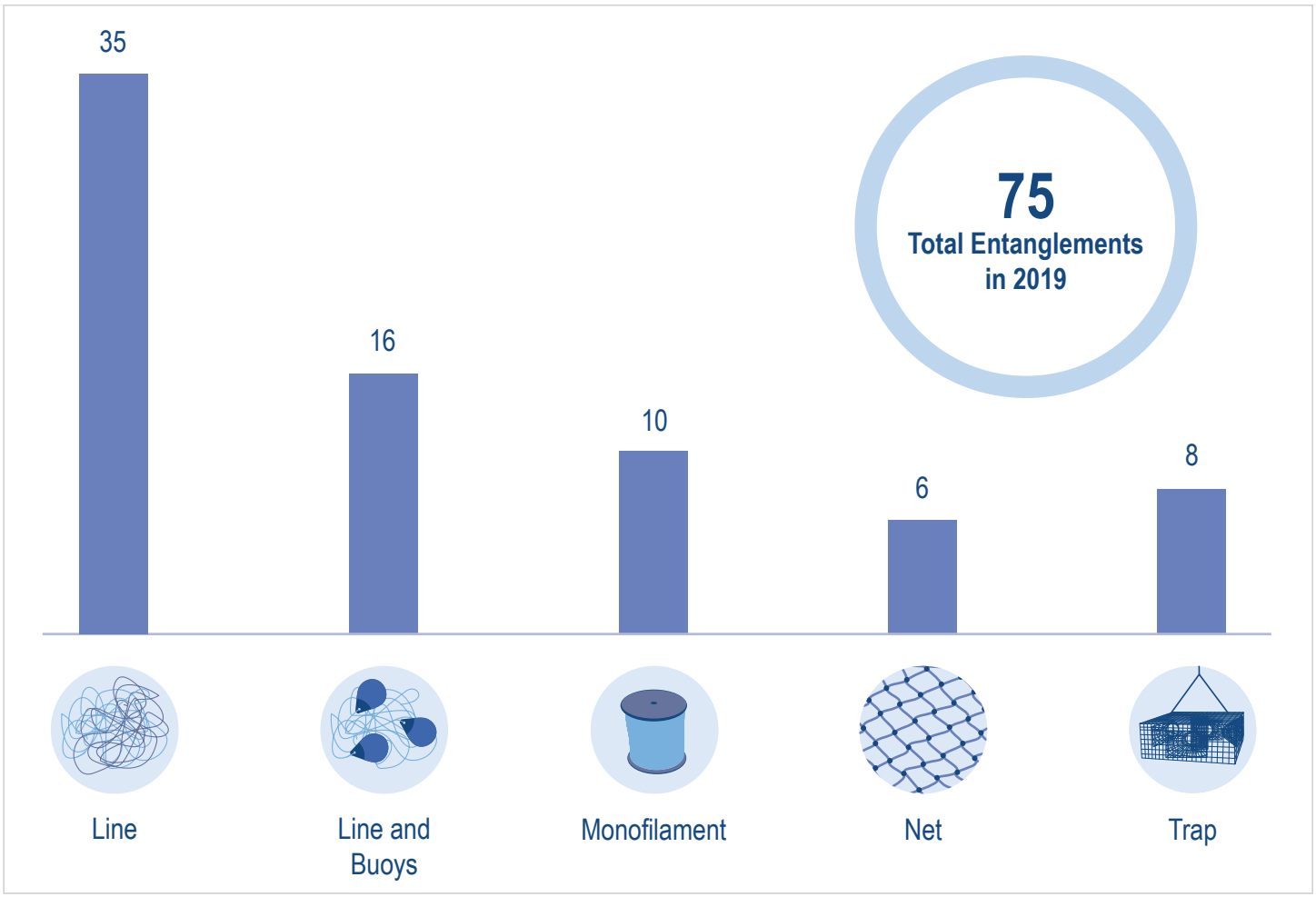


Figure 2. The locations of all confirmed live large whale entanglements in U.S. waters in 2019. Note that whales may be reported either near or far from where the entanglement occurred, as they have been known to travel great distances while entangled.

Sources of Entanglements

Fifty-three percent (n=40) of identified entangling gear in 2019 involved gear definitely used in fishing (e.g., line and buoys, traps, nets, and monofilament line). In recent years, NOAA Fisheries has been working to better investigate the sources of entanglements. By identifying the source of entangling gear, NOAA Fisheries can work with fishers and coastal communities to identify areas, fisheries, and gear configurations that are more likely to result in whale entanglements. These data can help NOAA Fisheries better understand the threat in order to mitigate the risk to, and its impacts on, whales and fishers alike. Forty-seven percent (n=35) of the cases in 2019 involved line that could not be directly attributed to a fishery or other source (i.e., no clear evidence of traps, nets, or other gear associated with fishing). Although various marine industries introduce gear into the ocean (e.g., ropes, lines, nets, chains, and cables), one of the most common sources of line is commercial or recreational fishing gear. Therefore, it is likely some of the cases involving only line were related to fishing activities.



Types and the number of cases of entanglements.

Responders cut line entangling a humpback whale off Maui, Hawaii, on March 6, 2019. The entanglement looped through the whale's mouth and included more than 400 feet of line and a trap that weighed more than 66 pounds. This whale was partially disentangled by the Hawaii Large Whale Entanglement Response Network. Credit: Ed Lyman; Permit No. 18786-03.

The National Large Whale Entanglement Response Network

NOAA Fisheries coordinates the national Network, which is composed of five regional networks: Greater Atlantic (Maine to Virginia), Southeast (North Carolina to Texas and the Caribbean), West Coast (Washington to California), Alaska, and Pacific Islands. Network members represent a wide range of non-profit, academic, industry, and government organizations, with significant experience gained from trainings and responses. All large whale entanglement response operations on ESA-listed species are conducted under the authority of the MMPA/ESA Scientific Research and Enhancement Permit (No. 18786) issued to NOAA Fisheries' Marine Mammal Health and Stranding Response Program. The trained professional expert responders who are authorized to closely approach whales are listed as Co-Investigators under this permit.

Table 2. Number of permitted Level 3, 4, and 5 entanglement responders.

Location	Level 3	Level 4	Level 5
Atlantic Coast	33	4	5
Pacific Coast	39	9	1
Total	72	13	6

In general, Level 1 and 2 responders are fishermen, boaters, and other ocean experts who are trained to recognize entangled whales and assess a situation. To date, more than 1,000 individuals have completed the basic training to be a Level 1 or 2 responder. There are several training opportunities to familiarize ocean users with assessing and reporting entangled large whales, including a web-based course[6] that has been developed in a partnership between NOAA and The Nature Conservancy. However, completion of this course alone does not provide a qualification as a network member. Responders at Level 3, 4, and 5 are experienced ocean users—frequently biologists, whale watch captains, or stranding network members—who are authorized under the MMPA/ESA permit to conduct entanglement response activities after submitting documentation of their training and experience. Nationwide, 91 people were authorized as Level 3, 4, or 5 responders in 2019, located across a wide geographic range (Figure 3). Large whales are the largest animals on Earth, and disentangling them is inherently dangerous. NOAA supports the Network by providing tools, training, protocols, funding, and oversight across the country to ensure that these activities are conducted in a manner that prioritizes human and animal safety.

Responder Levels

Responders are categorized into five levels, based on training and expertise:

Level 1 and 2 *responders are trained to assess entangled large whales, and may be asked to assist in entanglement response activities by tracking and documenting entangled whales from a distance.*

Level 3 *responders closely approach entangled whales for visual health assessments, and may attach tracking devices (telemetry buoys) to entangling gear so entangled whales can be followed and quickly located.*

Level 4 *responders use tools to cut and remove entangling gear. Level 4 responders can perform these activities on all whale species except North Atlantic right whales, as disentangling this species is particularly dangerous.*

Level 5 *responder duties are similar to Level 4 and responders may remove entangling gear from all species of whales, and have additional training and skills for responding to North Atlantic right whales.*

6 Links to the web-based courses can be found in the "What Members of the Public Can Do" section of this report.

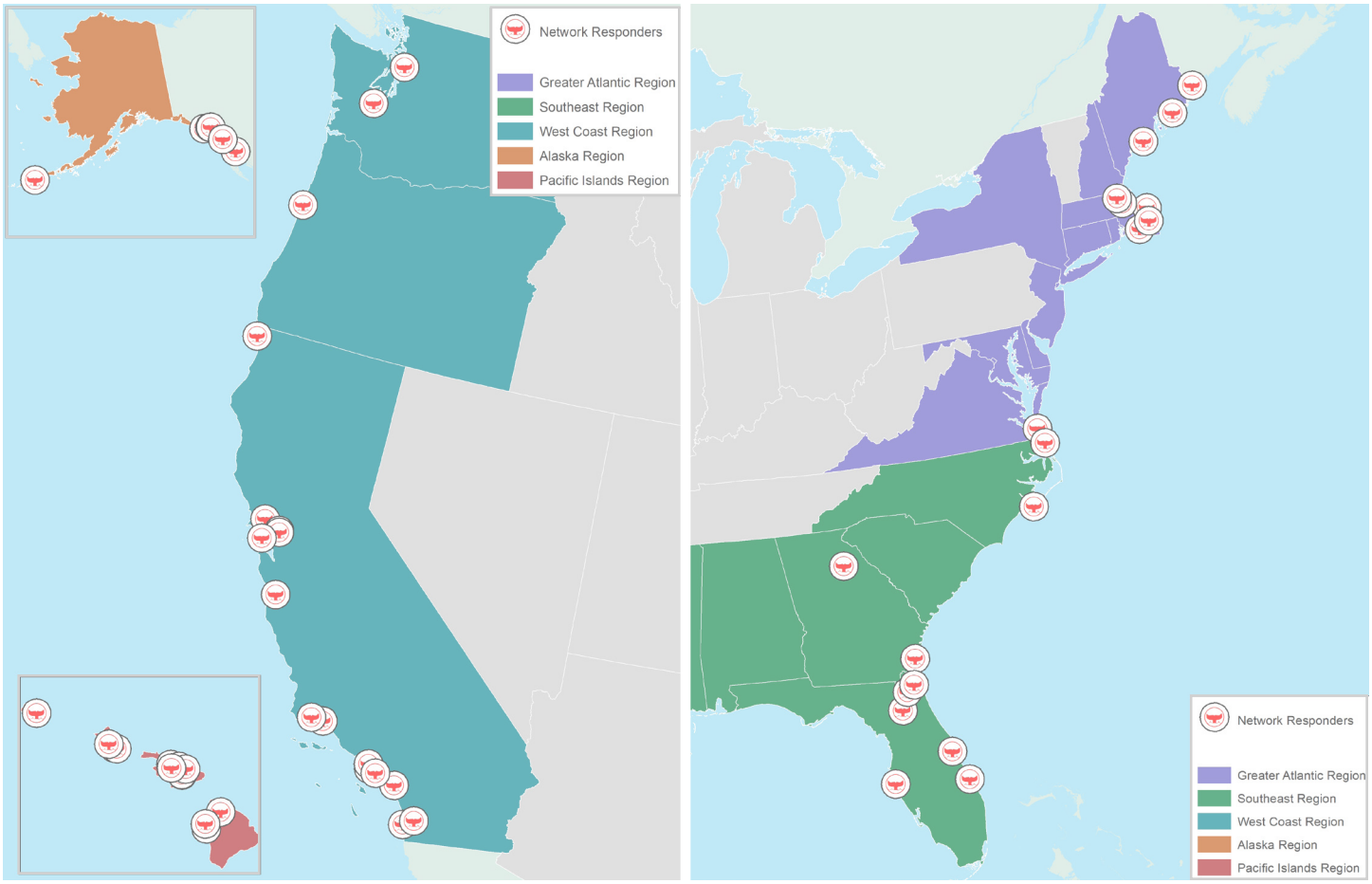


Figure 3. The locations of all Level 3, 4, and 5 responders in the Large Whale Entanglement Response Network. Note that multiple responders may be based at the same location.

Response Operations to Disentangle Large Whales

Assisting Whales in Distress

Entangled large whales are always considered to be in distress and may be facing a life-threatening situation, as entanglements can interfere with swimming, feeding, breathing, or other vital functions. Severe entanglements cause suffering and serious injuries, and eventually lead to a painful death.[7]

Approximately 200 feet of line and buoys recovered from an entangled humpback whale in Kachemak Bay, AK. Credit: NOAA Fisheries.

Supporting Conservation of Threatened and Endangered Species

Response operations are conducted not only for humane and welfare reasons to provide relief to individually entangled animals, but also to provide an important opportunity to collect information that may reduce the risk of future entanglements, and ultimately aid in the conservation and management of the species. This is particularly important for species that are listed as threatened or endangered under the ESA, because each individual can contribute meaningfully to population recovery. Although the majority of responses in 2019 involved species with populations in the United States that are no longer listed as threatened or endangered under the ESA (e.g., humpback whales in the western north Atlantic and eastern North Pacific gray whales), the experiences and lessons learned by the Network members from responding to those cases helped hone their skills and expertise so that future responses to endangered species like North Atlantic right whales and blue whales can be conducted as skillfully and safely as possible. Therefore, disentangling all large whale species, regardless of their ESA status, will ultimately have a positive impact on the conservation of threatened and endangered species.

Entanglements Can Be Lethal

Several cases in 2019 highlighted the lethal nature of some large whale entanglements. A humpback whale was documented and confirmed entangled swimming far offshore of Santa Barbara, California. The Network was unable to mount a response due to the location of the report, and the whale was documented dead only 5 days later. A juvenile gray whale was successfully disentangled by the Network off the coast of southern California, but had severe injuries from the entanglement and was found dead a few days after the response. A juvenile humpback whale stranded alive on a beach in Humboldt County, California, with a severe entanglement that likely contributed to its stranding. The Stranding Network (not the U.S. Large Whale Entanglement Response Network) disentangled the whale on the beach, but was unable to refloat the animal due to its size, so it was euthanized to end its suffering. While this case represented a confirmed entanglement, the response was not conducted by members of the U.S. Large Whale

7 Moore, M.J. and Van der Hoop, J.M., 2012. The painful side of trap and fixed net fisheries: chronic entanglement of large whales. Journal of Marine Biology.

Entanglement Response Network; the response has not been included in the operations statistics for the U.S. Large Whale Entanglement Response Network, as it was conducted on the beach after the whale was stranded.

Response Operations Outcomes, 2019

- **Network Response (25.4%):** In 2019, the Network mounted at least 19 responses to the 67 confirmed entangled, free-swimming whales, which resulted in the full or partial disentanglement of 13 individual animals.
- **Confirmed Self-Release (14.9%):** Two of the 19 whales that received a Network response shed their gear before the Network could intervene. Separately, seven other whales were also documented to have shed the entangling gear on their own, and did not necessitate a Network response.
- **No Response (53.7%):** The Network mobilized a response for an additional four live whales reported to the hotlines, but were unsuccessful in locating those animals and the outcome of those cases is not known; they may have remained entangled, died, or shed the entangling gear. The Network was unable to mount a response in the remaining 36 cases due to the location of the report (i.e., the whale was too far offshore to mount an effective response) or due to the conditions (i.e., reports received late in the day or during bad weather).
- **Public Response (6.0%):** Four separate cases involved members of the public attempting to disentangle large whales.[8] While likely well-intentioned, these responses needlessly put members of the public at risk. Even for trained responders, disentangling large whales is dangerous. In 2017, a trained and very experienced responder was killed by a whale during a response operation in Canada. Additionally, responses by untrained members of the public typically do not free the animal from the lethal part of the entanglement (i.e., only some gear is removed), and reduce the chances of experienced network response. Cutting off trailing gear and buoys, which is typically what the public is able to do, makes it harder for the animal to be re-located and disentangled. Additionally, experienced disentanglement teams prioritize the order in which specific cuts should be made to increase the likelihood

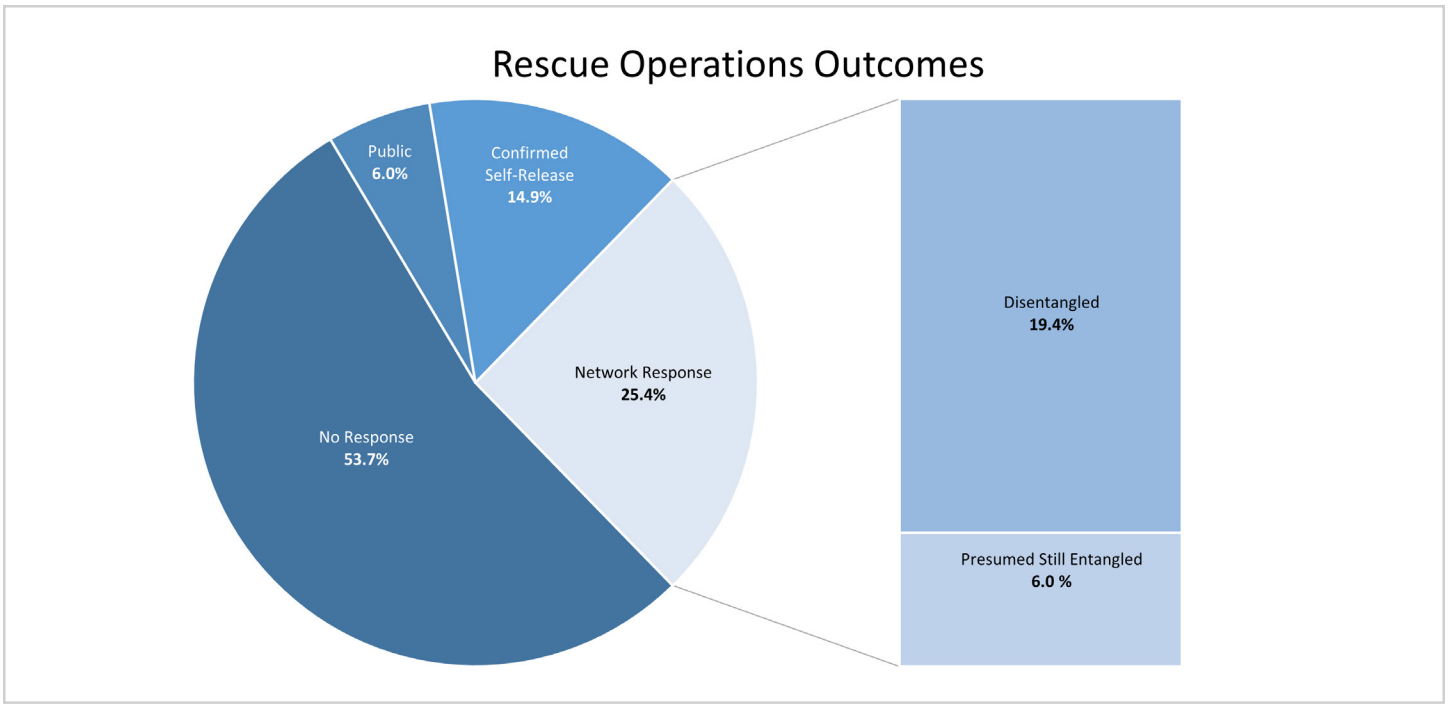


Figure 4. **The outcomes of all live, free-swimming entangled large whales confirmed in 2019.**

8 Section 101(d) of the MMPA allows "Good Samaritans" to assist entangled marine mammals under special conditions. However, since the ESA does not have a comparable provision, the "Good Samaritan Exemption" does not apply to ESA-listed species of large whales. Thus, only responders authorized under MMPA/ESA Permit No. 18786-05 should attempt rescues of ESA-listed species. Due to human safety concerns including serious injury and death, we further recommend that only professionally trained responders attempt whale disentanglements, even if legal under the MMPA.

of all gear being removed. Finally, Network members are trained on the types of data that should be collected from entangled whales. These data are often not recorded properly by members of the public, which may hamper efforts to effectively address this threat to large whales. Therefore, NOAA Fisheries and our partners urge the public to contact their regional entanglement hotline to alert trained and equipped members of the Network if they encounter an entangled whale instead of taking matters into their own hands. This is for the safety of the public as well as the whales.

What Members of the Public Can Do

The U.S. Large Whale Entanglement Response Network relies on reports of entangled whales from the public. If you encounter a whale that may be entangled, please contact your local network via the 24/7 regional hotline or contact the U.S. Coast Guard on VHF CH-16.

Regional Entanglement Hotlines

Region	Phone Number
Maine through Virginia	1-866-755-6622
North Carolina through Texas and the Caribbean	1-877-942-5343
California, Oregon, and Washington	1-877-SOS-WHALE (1-899-969-9425)
Alaska	1-877-925-7773
Hawaii	1-888-256-9840

Information Needed When Reporting

When reporting an entangled whale, please include the following information:

- **Whale location:** Location of the animal.
- **Entanglement description:** A detailed description of the entangling gear or debris.
- **Entanglement location:** Where the entanglement is located on the animal.
- **Whale movement and presence of other whales:** The direction the whale is moving, and whether it is solitary or with other whales.
- **Whale behavior:** The behavior of the whale.
- **Whale species:** Species of the whale.
- **Whale size and condition:** The approximate size and condition of the whale.
- **Photo or video documentation:** Photos and videos, if taken.

Only trained and permitted responders should attempt to disentangle or closely approach an entangled large whale.

Photo or Video Documentation

Photos or videos of the whale (from a safe and legal distance of at least 100 yards, unless greater restrictions apply) can also provide valuable information to entanglement responders. Only trained and permitted responders should attempt to disentangle or closely approach an entangled large whale. Whales are unpredictable and attempting to remove an entanglement is extremely dangerous. Entanglement response in the U.S. should only be conducted by members of the Network who have been trained and authorized by NOAA Fisheries.

Regional Level 1 Responder Courses

If you are interested in learning more about the Network, you can take our free web-based course Level 1 Responder course (see below). This course, which was developed in a partnership between NOAA and The Nature Conservancy, will familiarize you with assessing and reporting entangled large whales. Completion of this course alone does not provide qualification as a network member.

Region	Web
Atlantic and Gulf Coasts	https://east-coast-training.whaledisentanglement.org/#/
California, Oregon, and Washington	https://west-coast-training.whaledisentanglement.org/#/
Alaska	https://alaska-training.whaledisentanglement.org/#/
Hawaii	https://pacific-islands-training.whaledisentanglement.org/#/

A decomposed humpback whale calf with a severe entanglement around the peduncle, reported in the Bering Sea. While carcasses in advanced stages of decomposition can make it difficult to identify the whale species or other details, each case still provides valuable information for scientists and managers. Credit: U.S. Coast Guard.

Additional References

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- Global Whale Entanglement Response Network

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Responders practice throwing a grapple during training in Auke Bay, Alaska, in May 2019. Credit: NOAA/David Gann.