

# National Report on Large Whale Entanglements Confirmed in the United States in 2020

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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):** Line and buoys wrapped tightly around a humpback whale's tail. Entanglements may eventually begin to cut into the whale, as seen in this photo, and may ultimately lead to amputations and/or death. Credit: Pieter Folkens; Permit No. 18786-04.

**Cover photo (circle):** Floating ropes and fishing buoys are visible on the surface near the tail flukes of a diving entangled humpback whale in Monterey Bay, California in May 2020. Credit: Stephanie Marcos; Permit No. 18786-04.

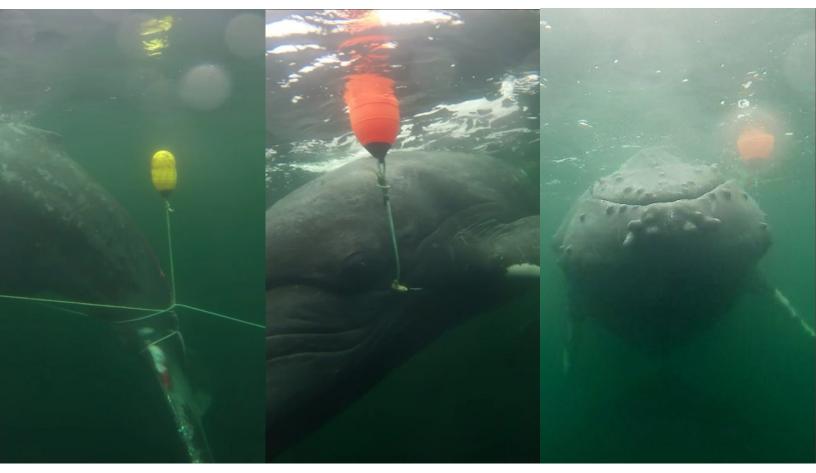
# Introduction

In 2020, there were 53 confirmed entangled large whales documented along the coasts of the United States, with 42 cases involving live animals and 11 cases involving animals that were dead (floating or stranded) when initially reported. All 53 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 entanglement cases for 2020 (n=53) are unique individual whales and do not represent multiple reports of the same individual. NOAA Fisheries tracks subsequent reports of previously reported entangled whales to understand the nature of the entanglement, monitor associated injuries, and assess the animal's health status. Any subsequent reports of individual whales have been combined into a single record for the purposes of this summary to provide clarity on the number of entangled individuals in 2020.

Twelve additional cases were reported, but those entanglements could not be confirmed with the information received, and the whales were not re-located by network members. Those 12 additional reports were tracked, but are not included in the overall annual total. Therefore, this summary report represents a conservative estimate of the number of large whale entanglements in U.S. waters as it only accounts for confirmed cases. Given that large whales travel long distances between their feeding and breeding grounds, and across international boundaries and oceans, some of these entanglements may have originated in waters outside the United States. Importantly, confirmed entanglements underestimate the true number of entangled whales, as many entangled whales go undetected (e.g., are not sighted and die at sea). 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.<sup>1</sup> NOAA Fisheries' goal is to collect and identify entangling gear during each response in order to better understand the threats and work with fishers and coastal communities to reduce future entanglements. However, definitive identification of gear is not always possible.

Entangled large whales may face a number of life-threatening risk factors and associated impacts. Entanglements often interfere with swimming, feeding, breathing, and/ 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 and to provide relief to individually entangled animals. Response activities also collect important information and documentation to identify how whales become entangled, 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. 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 rescues in 2020 involved species and/or populations in the United States that are no longer considered threatened or endangered under the ESA, each intervention attempt by the Network provides an important opportunity for responders to hone their skills and apply lessons learned from those cases to respond more effectively and safely to threatened and endangered species (e.g., North Atlantic right whales, *Eubalaena glacialis*), cases in which the rescue of each individual can be vital for the survival of their species.

<sup>1</sup> 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.



Thanksgiving Whale: Entangled humpback first observed near Tenakee, Alaska, on November 25, 2020. An assessment was conducted that day and a response launched on November 26 (Thanksgiving), resulting in nearly a complete disentanglement. This is a known whale that returns to this area annually, and observers resighted this whale in July 2021 approximately 85 miles south of Tenakee, AK. The observers confirmed that the whale was no longer entangled, but scars from the entanglement were still visible. Credit: Gordon Chew/Steve Lewis; Permit No. 18786-04

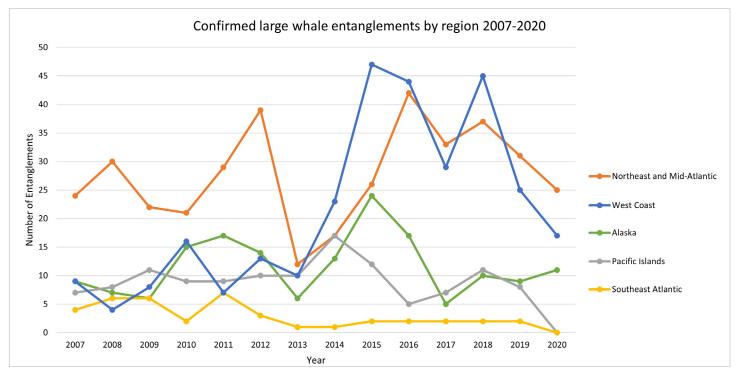
# Comparing Confirmed Entanglements in 2020 to Past Years

### **Historical Trends**

The number of confirmed large whale entanglement cases nationwide in 2020 (n=53) is below the average of the annual number of confirmed entanglements over the previous 13 years from 2007–2019 (n=73.8  $\pm$  22.0; average  $\pm$  one standard deviation).

### Confirmed Large Whale Entanglements by Region, 2007–2020

Nearly every NOAA Fisheries region experienced a decrease in the number of confirmed large whale entanglements in 2020 when compared to 2019, with the exception of the Alaska region, which documented two more confirmed large whale entanglements in 2020 (n=11) compared to 2019 (n=9) (Figure 1). Two regions (the Southeast Region and the Pacific Islands Region) did not document any confirmed large whale entanglements during 2020.



**Figure 1.** Confirmed large whale entanglements from 2007–2020. In 2020, most regions had a decrease in confirmed entanglements.

### The Year 2020: Impacts of the COVID-19 Pandemic on Reported Entanglements

It is unknown what factors may be responsible for the decrease in confirmed large whale entanglements in U.S. waters in 2020, and whether it is reflective of a true reduction in the number of whales becoming entangled or instead represents that there were fewer people on the water to observe and report cases. The year 2020 was upended by the global COVID-19 pandemic, which impacted many human activities, reducing the number of people on the water who would have been able to sight and report entangled whales. Scientific field work (surveys, photo identification work, and other assessments) were halted for months, or in some cases the entire year. Whale watch tours were significantly reduced or did not occur in some areas. Similarly, fishing operations were reduced in many areas during the pandemic. Further complicating the data analysis, all of these activities were reduced in different ways and at different times as restrictions varied across the different U.S. localities in response to local conditions. The Network was also impacted by

the pandemic. Fewer responses were initiated and, if conducted, were often more limited with fewer people per response vessel to maintain human safety. All of these factors may have contributed to a decrease in the observation, documentation, and confirmation of large whale entanglements in 2020. It is also possible that the decrease in confirmed large whale entanglements in 2020 may have been unrelated to the COVID-19 pandemic. For example, some regions have reported large-scale environmental changes, like marine heat waves, that may also be affecting large whale entanglement rates and reporting.<sup>2</sup> Therefore, the decrease in confirmed large whale entanglements in 2020 may be due to some or all of these factors. NOAA Fisheries will continue to analyze data from 2020 and will continue to document future large whale entanglements in U.S. waters to better understand if the decrease in confirmed entanglements is a temporary decrease (possibly attributable to the COVID-19 pandemic) or a long-term reduction.

### Entanglements by Whale Species

In 2020, five species of large whales were documented with entanglements: humpback whales (*Megaptera novaeangliae*), gray whales (*Eschrichtius robustus*), minke whales (*Balaenoptera acutorostrata*), North Atlantic right whales, and sperm whales (*Physeter macrocephalus*). This breakdown was similar to the most frequently entangled species in the past few years. In two of the 53 confirmed large whale entanglement cases, the entanglement was confirmed but the whale could not be identified to species, and therefore those two cases have been classified as "unidentified."

**Table 1.** Number of confirmed entanglements in 2019 and 2020 and the 13-year average number of entanglements for each large whale species.<sup>3</sup>

| Species                       | 2019 | 2020 | 2007-2019 Average |
|-------------------------------|------|------|-------------------|
| Blue Whale                    | 0    | 0    | 0.5 ± 1.1         |
| Bowhead Whale                 | 0    | 0    | 0.2 ± 0.4         |
| Bryde's Whale                 | 0    | 0    | 0.1 ± 0.3         |
| Fin Whale                     | 1    | 0    | 2.2 ± 1.6         |
| Gray Whale                    | 8    | 7    | 7.2 ± 4.0         |
| Humpback Whale                | 53   | 33   | 51.0 ± 19.7       |
| Minke Whale                   | 8    | 6    | 5.6 ± 1.6         |
| North Atlantic Right<br>Whale | 5    | 4    | 4.4 ± 2.4         |
| Sei Whale                     | 0    | 0    | 0.4 ± 0.5         |
| Sperm Whale                   | 0    | 1    | 0.3 ± 0.8         |
| Unidentified Whale            | 0    | 2    | 1.9 ± 1.6         |

<sup>2</sup> Lyman, Edward., et al. 2019. "Are recent population-level changes in the central North Pacific humpback whales

<sup>(</sup>Megaptera novaeangliae) affecting entanglement threat and reporting rate?" Poster for 2019 Society for Marine Mammalogy Conference.

<sup>3</sup> Large whale species not listed in the table have never been documented with a confirmed entanglement in U.S. waters.

#### Humpback whale (n=33 in 3 Regions)



In 2020, the number of confirmed entanglements of humpback whales was significantly fewer than the 13-year average (Table 1). In the Pacific, 19 humpback whales were confirmed entangled, which is much lower than the 13-year average for this ocean basin ( $32.0 \pm 15.8$ ). Entanglements involving this species in the Atlantic were also lower than the corresponding average ( $18.8 \pm 6.9$ ), with 14 confirmed entanglements in 2020.

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 seen in this species could be due to many factors, such as the increasing number of whales, a high degree of overlap in distribution of whales, growing coastal communities, and fishing effort, or a combination of these or additional factors. The MMPA protects all humpback whales that occur in U.S. waters, and the ESA provides additional protections for those populations listed as endangered or threatened. 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 two in 2020. 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.

#### Gray whale (n=7 in 2 Regions)



The number of confirmed gray whale entanglements in 2020 in U.S. waters was fewer than recent years, but similar to the 13-year average for gray whales (Table 1). In the United States, gray whales only occur in the Pacific Ocean, and confirmed entanglements in 2020 were first documented in the West Coast and Alaska Regions. 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 some remain off the coast of northern California, Washington, and Oregon during the summer. All gray whales are protected under the MMPA. 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. 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 one in 2020.

#### Minke whale (n=6 in 1 Region)



The number of confirmed minke whale entanglements in 2020 in U.S. waters was slightly fewer than the number of entanglements confirmed in 2019, and similar to the 13-year average (Table 1). Although minke whales are present in both the Atlantic and Pacific Oceans, all confirmed entanglements in 2020 were first documented in the Northeast United States. Minke whales are protected under the MMPA and are not listed as threatened or endangered under the ESA. An UME was declared for minke whales on the East Coast in 2017 and is ongoing. Several of the whales included in the UME were determined to have died from entanglements, including three in 2020.

### 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 negatively impacts 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 2020, 44 individual right whales (32 confirmed dead, 12 seriously injured) were included in the UME for the 4-year period (2017–2020). 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 2020; for more information on the current status of the North Atlantic right whale UME, please visit:

https://www.fisheries.noaa. gov/national/marine-lifedistress/2017-2021-northatlantic-right-whaleunusual-mortality-event

#### North Atlantic right whale (n=4 in 1 Region)

The number of confirmed North Atlantic right whale entanglements in U.S. waters in 2020 was near the 13-year average (Table 1). Although the



confirmed right whale entanglements in the United States were near average, the overall entanglement risk to this species is of great concern.<sup>4</sup> North Atlantic right whales are protected under the MMPA and listed as endangered under the ESA. 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 factors impeding recovery of the species. NOAA Fisheries declared an UME for this species in 2017, which was ongoing through 2020, and also designated it a "Species in the Spotlight." The UME was declared because a high number of dead or seriously injured whales were discovered in Canadian and U.S. waters. Several of the whales included in the UME were determined to have died or become injured from entanglements, but no deaths from entanglements were documented in 2020. 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 in the north and Georgia and northern Florida). All entanglements of right whales are of concern; even if an entanglement is not life threatening, the stress and drag created by entangling gear may delay reproduction (resulting in a skipped year or years between calves) or prevent females from successfully giving birth.<sup>5</sup> Given the critical status of North Atlantic right whales and declining trend of the species, any entanglement is a major threat to the species' recovery.<sup>6</sup>

#### Sperm whale (n=1 in 1 Region)

In 2020, a sperm whale was confirmed entangled near Santa Barbara, California. Sperm whales are



found in all the world's oceans, and this is the first live confirmed entanglement of this species in U.S. waters. Sperm whales hunt for food during deep dives and can remain submerged for over an hour. Therefore, locating and documenting an entangled sperm whale can be more difficult than documenting entanglements on species that surface more regularly.

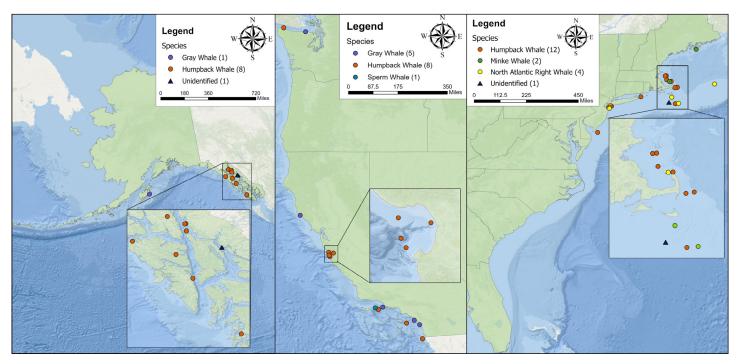
<sup>4</sup> Sharp, S.M., McLellan, W.A., Rotstein, D.S., Costidis, A.M., Barco, S.G., Durham, K., Pitchford, T.D., Jackson, K.A., Daoust, P.Y., Wimmer, T. and Couture, E.L., 2019. Gross and histopathologic diagnoses from North Atlantic right whale (*Eubalaena glacialis*) mortalities between 2003 and 2018. Diseases of aquatic organisms, 135(1), pp.1-31.

<sup>5</sup> 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.

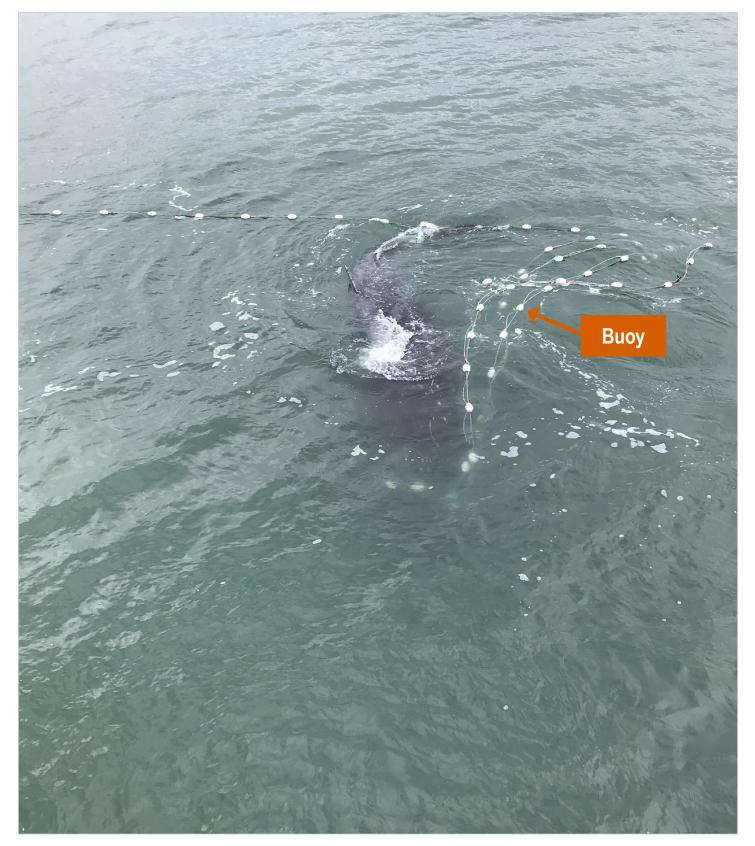
<sup>6</sup> NMFS 2019. "US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2019" U.S. Dep. Commer., NOAA Tech. Memo. NMFS-NE-264.

# Reported Locations of Confirmed Live Entangled Whales

In 2020, live large whale entanglements were reported and confirmed off the coast of 10 states. Half of all confirmed live whale entanglements were observed and reported off the coast of two states; 25 percent off the coast of California (n=13) and 25 percent off the coast of Massachusetts (n=13). The entanglement reports off the coast of Massachusetts were concentrated along Cape Cod and Cape Cod Bay, and approximately half were humpback whales (n=7) (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=4) and the Southern California Bight (n=7). The location where an entangled whale is reported may be either close to where the entanglement occurred, or it may be far away from the origin of the entanglement in both time and space. Whales have been documented carrying entangling gear thousands of kilometers and for many months, and even years. These data also show how ocean users (whale watchers, scientific researchers) in particular geographic areas may help whales coastwide, as the high number of observed and confirmed entanglement cases from these spots can be used to identify impacts from a much larger area.



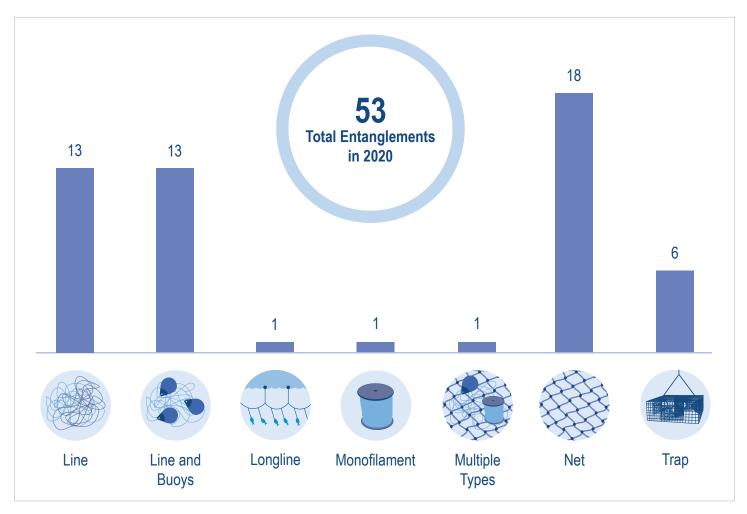
**Figure 2.** The locations of all confirmed live large whale entanglements in U.S. waters in 2020. Note that whales may be reported either near or far from where the entanglement occurred, as they have been known to travel great distances while entangled.



A success story: this humpback whale calf became entangled in salmon gillnet with a series of white buoys on the surface north of Juneau, Alaska on July 26, 2020. Fishers used best management practices developed by fishermen and recommended by the Alaska Large Whale Entanglement Response Network to enable the calf to free itself from the net. This animal was observed repeatedly in the following weeks by Alaska Large Whale Entanglement Response Network members and, besides a few scratches, appeared to be fine. Credit: Daniel Chambley; Permit No. 18786-04

# Sources of Entanglements

In recent years, NOAA Fisheries has been working to better investigate the sources of entanglements. By identifying the source of entangling fishing 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. Fifty-five percent (n=29) of confirmed live and dead cases in 2020 involved commercial or recreational fishing gear (e.g., buoys with identifiable marks, traps, nets, and monofilament line). In one case, a whale was simultaneously entangled in two different types of fishing gear—a gillnet and a troll line. The remaining cases in 2020 involved line that could not be directly attributed to a fishery or other source (i.e., no clear identifying features such as numbered buoys, traps, nets, or other gear with a known source). 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. Therefore, it is likely some of the cases involving only line were related to fishing activities.



Types and the number of cases of entanglements.





One of two buoys removed by members of the public from a humpback whale entangled in recreational shrimp pot gear near Sitka, Alaska. The Large Whale Entanglement Response Network was unable to re-locate and re-assess this entangled animal to determine if it was able to self-release. Please don't remove buoys from an entangled whale unless you've received guidance to do so from the NOAA Fisheries Large Whale Entanglement Response Network. Credit: NOAA Fisheries; Permit No. 18786-04.

# 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 (MMHSRP), and the trained professional expert responders who are authorized to closely approach whales are listed as Co-Investigators under the permit.

| Location       | Level 3 | Level 4 | Level 5 |
|----------------|---------|---------|---------|
| Atlantic Coast | 33      | 4       | 5       |
| Pacific Coast  | 43      | 9       | 1       |
| Total          | 76      | 13      | 6       |

In general, Level 1 and 2 responders are fishermen, boaters, and other ocean users 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<sup>7</sup> 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. Level 3, 4, and 5 responders are experienced ocean users—frequently biologists, whale watch captains, and stranding network members—who are authorized under the MMHSRP permit to conduct entanglement response activities after submitting documentation of their training and experience. Nationwide, 95 people were authorized as Level 3, 4, or 5 responders in 2020, and were widely distributed geographically (Figure 4). 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 emphasizes human and animal safety.

## **Responder Levels**

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

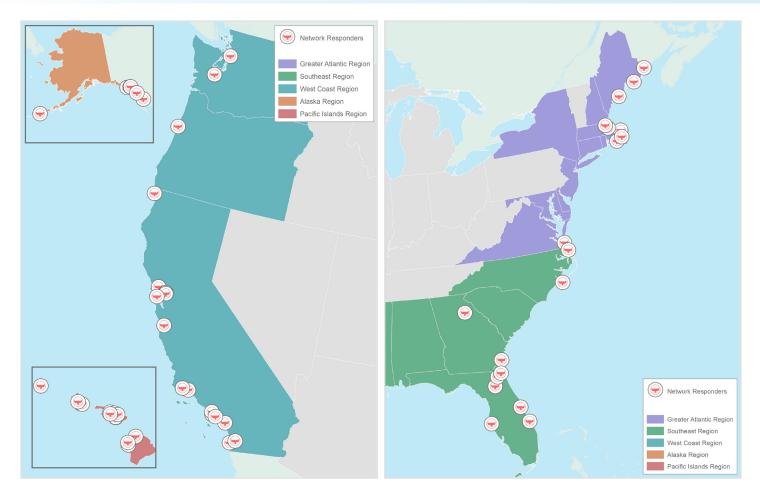
**Level 1 and 2** responders are trained to assess entangled large whales, and may be asked to assist in entanglement response activities by tracking and documenting entangled whales from a distance.

**Level 3** responders closely approach entangled whales for visual health assessments, and may attach tracking devices (tags) 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 experience in responding to North Atlantic right whales.

<sup>7</sup> Links to the web-based courses can be found in the "<u>What Members of the Public Can Do</u>" 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

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 can eventually lead to a painful death.<sup>8</sup> 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 helps their population recover. Although the majority of rescues in 2020 involved species with populations that are not listed as threatened or endangered, the experiences and lessons learned by Network members from responding to those cases helped maintain and hone their skills so that responses to critically endangered species, like North Atlantic right whales, were 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.

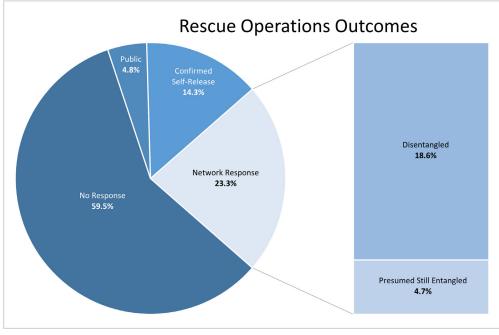
# The Impacts of the COVID-19 Pandemic Impact on the National Large Whale Entanglement Response Network

As mentioned above, the year 2020 was severely impacted by the COVID-19 pandemic, which limited the capacity of the Network to respond to confirmed reports and disentangle large whales. For some response organizations, COVID-19-related social distancing requirements could not be achieved on the vessels normally used for entanglement response events. As a result, fewer responses were initiated nationwide. If conducted, responses often used fewer responders in the vessel than in a typical year, and responders were required to wear personal protective equipment to reduce the likelihood of disease transmission, which restricted the activities that could be safely conducted.

<sup>8</sup> 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.

### **Response Operation Outcomes, 2020**

- Network Response (23.3%): Despite the pandemic impacts, the Network was able to mount 14 responses to the 42 confirmed reports of entangled, free-swimming whales, which resulted in the full or partial disentanglement of eight individual animals.
- **Confirmed Self-Release (14.3%):** Two of the 14 whales that received a Network response shed their gear before the Network needed to intervene. Separately, four other whales were also documented to have shed the entangling gear on their own, and did not receive a Network response.
- No Response (59.5%): 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 29 cases due to the location of the report (e.g., the whale was too far offshore to mount an effective response), the conditions (i.e., reports received late in the day or during bad weather), or local COVID-19 pandemic safety restrictions.
- **Public Response (4.8%):** Three cases involved members of the public attempting to disentangle large whales<sup>9</sup>. 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 of all gear being removed. Finally, Network members are properly 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.

**Figure 4.** The outcomes of all live, free-swimming entangled large whales confirmed in 2020.

<sup>9</sup> 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.

# What Members of the Public Can Do

The 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 (1-877-767-9425) |
| 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/#/ |



Members of the West Coast Large Whale Entanglement Response Network work to free an entangled humpback whale off of California in May 2020. Credit: Jen Osborn; Permit No. 18786-04.

## **Additional References**

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- Global Whale Entanglement Response Network

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





Members of the West Coast Large Whale Entanglement Response Network work to free an entangled humpback whale in Monterey Bay, California in May 2020. Credit: Stephanie Marcos; Permit No. 18786-04.





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