



2019 West Coast Whale Entanglement Summary

Each year, NOAA Fisheries collects, verifies, documents, and responds to reports of large whale entanglements from a variety of sources including boaters, fishermen, law enforcement, marine resource agencies, and the public. The reports received or known to have originated from U.S. West Coast sources in 2019, along with other relevant information and developments surrounding the entanglement issue on the U.S. West Coast, are included in this summary. NOAA Fisheries publishes a separate national entanglement report that summarizes national data on reports and confirmed entanglements, as well as highlights emergency response activities to help whales in U.S. waters by the U.S. Large Whale Entanglement Response Network nationwide.

In 2019, entanglement reporting on the U.S. West Coast continued to be higher than what had occurred historically prior to 2014, although fewer reports were received than in some of the recent record high years (Figure 1). A total of 26 whales were confirmed entangled off the coasts of Washington, Oregon, and California in 2019. Similar to recent years, humpback whales continue to be the most common species entangled with 17 separate entanglements confirmed in 2019. There were also eight gray whales confirmed entangled and one confirmed minke whale entanglement. Information on the identified origins of entanglements, the locations of observations, and known outcomes from these entanglements are provided in this summary.

In addition, important fishery management developments during 2019 are also summarized. Finally, we note one leatherback sea turtle was confirmed entangled in California fixed fishing gear.

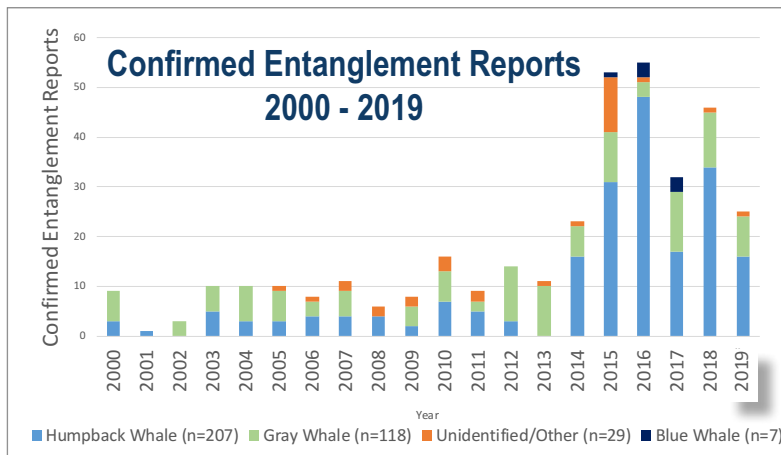


Figure 1. Number of confirmed entanglements by species reported to the West Coast Region each year from 2000 to 2019.



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Species	Confirmed (U)	Report Location ²	Fisheries
Humpback	17 (2)	13 CA, 3 WA, 1 MX	5 commercial Dungeness crab, 1 recreational Dungeness crab, 1 Dungeness crab and rock crab, 10 unknown
Gray	8 (1)	4 OR, 3 CA, 1 WA	2 gillnet, 1 commercial Dungeness crab, 1 mooring buoy, 4 unknown
Minke	1 (0)	1 CA	1 unknown

¹ Unconfirmed reports received in parentheses ² CA = California; OR = Oregon; WA = Washington; MX = Mexico

Alive/Dead

- There was 1 dead gray whale reported entangled in OR (June).
- There was 1 humpback whale originally reported alive on the beach in CA (October), but it subsequently died.
- All the remaining entanglement reports were associated with live animals.



Note: One dead leatherback sea turtle was confirmed entangled in southern California with rock crab gear.

Entanglement Response Outcomes

- 8 cases where a response was initiated (6 humpbacks and 2 grays):
 - 4 response cases (all humpback whales) where all gear was removed,
 - 3 response cases (2 humpbacks and 1 gray) where some but not all the gear was removed,
 - 1 response case where no gear was removed (gray whale).
- There were 18 cases where no response was initiated (11 humpback, 6 gray, 1 minke).
- There was 1 case where the whale (gray) self released from the gear.

Explanatory Notes

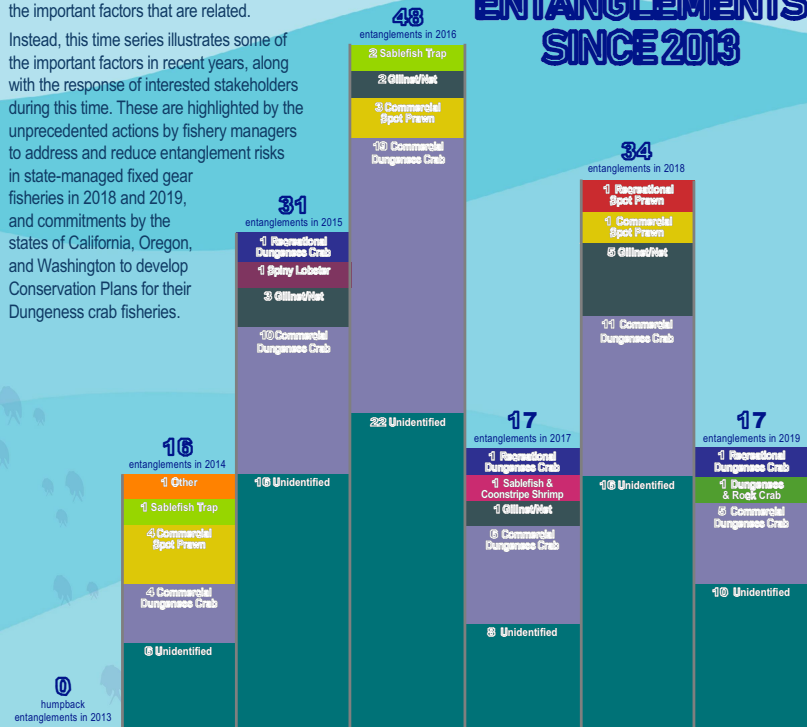
- The humpback whale entanglement report from Mexico was confirmed to have gear from OR Dungeness crab.
- One humpback whale entanglement report involved both rock crab and Dungeness crab gear.
- The origins of commercial Dungeness crab gear entanglements were: CA (5), OR (1), WA (1), and unknown origin (1). The recreational Dungeness crab gear entanglement originated in CA.

Since 2013, there has been a large increase in the overall number of whale entanglements reported along the U.S. west coast. While ~50% of entanglement reports cannot be attributed to a specific source, Dungeness crab fishing gear is the most common source that has been identified during this period. The causes for the increase in reported entanglements are complex, and the time series of developments as presented here does not attempt to explain or account for all the important factors that are related.

Instead, this time series illustrates some of the important factors in recent years, along with the response of interested stakeholders during this time. These are highlighted by the unprecedented actions by fishery managers to address and reduce entanglement risks in state-managed fixed gear fisheries in 2018 and 2019, and commitments by the states of California, Oregon, and Washington to develop Conservation Plans for their Dungeness crab fisheries.



HUMPBACK WHALE ENTANGLEMENTS SINCE 2013



2013 2014 2015 2016 2017 2018 2019

NOAA West Coast Region and Northwest and Southwest Fisheries Science Centers have been directly involved in providing scientific and management expertise and support to interested stakeholders through a wide variety of interactions as these entanglements have unfolded. In particular, NOAA Fisheries works to understand the ecosystem dynamics that are contributing to entanglement risk and develop the means to provide information, analysis, and advice to managers and interested stakeholders as quickly as possible.

MANAGEMENT ACTIONS

Summer 2015
NOAA Fisheries/ California Department of Fish & Wildlife (CDFW) whale entanglement public meeting convened in response to increased entanglement reports.
Fall 2015
California Dungeness Crab Fishing Gear Working Group convened. ([link](#))

Spring 2017
Pacific States Marine Fisheries Commission (PSMFC)/ NOAA Fisheries Workshop on Gear Innovations to Reduce Whale Entanglement. ([link](#))
Spring 2017
Oregon Whale Entanglement Working Group convened. ([link](#))
Fall 2017
Washington Whale Entanglement Working Group convened. ([link](#))

Summer 2018
PSMFC/NOAA Fisheries Whale Entanglement Forensic Review Workshop ([link](#))
Fall 2018
CA legislation passed provides authorities to take action in commercial Dungeness crab fishery in response to entanglement issue. ([link](#))

Spring 2019
Statewide closure of commercial CA Dungeness crab fishery in concert with litigation settlement. ([link](#))
Spring/Summer 2019 - CA, OR, and WA announce intentions to draft Conservation Plans and seek ESA permits for their commercial Dungeness crab fisheries.
Fall 2019
Washington Department of Fish & Wildlife proposes regulations in the commercial Dungeness crab fishery to take action in response to entanglement issue. ([link](#))
Fall 2019
CDFW Director delays opening of commercial Dungeness crab season to avoid marine life entanglement risk. ([link](#))

ENVIRONMENT
Early 2014 to Mid 2016
California Current Ecosystem (CCE) Large Marine Heatwave
End of 2014 to Summer 2016
Strong El Niño Conditions

SCIENCE
Summer/Fall 2018
California Current Ecosystem (CCE) Marine Mammals Survey – NOAA Fisheries survey collects data on whale population abundance, environmental monitoring, photo ID, entanglement reporting.

MANAGEMENT ACTIONS
2013
Trap limit programs and buoy tags are in effect for CA/OR/WA Commercial Dungeness crab fisheries.

MANAGEMENT ACTIONS
Late 2015 to Spring 2016
Unprecedented delays in Dungeness crab seasons delayed for domoic acid concerns.

ENVIRONMENT
Fall 2019
Northeast Pacific Marine Heatwave "NEP19" (ongoing)

How to Report an Entangled Whale

The public plays an important role in saving distressed whales, like those that become entangled. Prompt reporting and monitoring of the animal are the best ways to help.

You can report whales in distress to either:
the 24/7 reporting hotline
1-877-SOS-WHALE
(767-9425)
or
the United States Coast Guard on VHF CH-16

Entangled whales are unpredictable and potentially dangerous. Please keep a safe distance and do not approach the animal. You can continue to monitor the animal's condition and document the encounter while waiting for a response team to arrive.

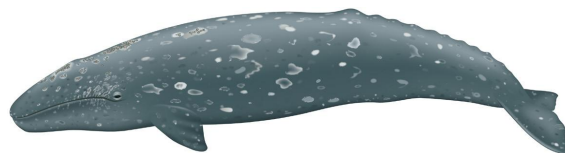
What to include in your report

1. Location of the animal
2. A detailed description of the color and gauge of rope
3. Location of gear on the whale
4. Color and size of buoys
5. Direction of the whale's movement, including whether it is solitary or with a group
6. Behavior of the whale, including whether it is surfacing or diving, and the length of dive times
7. Species of whale
8. Size and condition of the whale

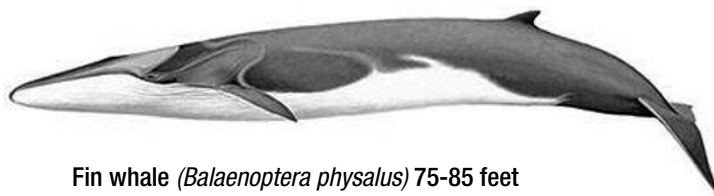
Documentation in the form of photos and videos of the entangled whale can provide valuable information to the responders and resource managers. The information from each whale entanglement contributes to our larger knowledge base and can be a valuable tool in helping to prevent future entanglements.



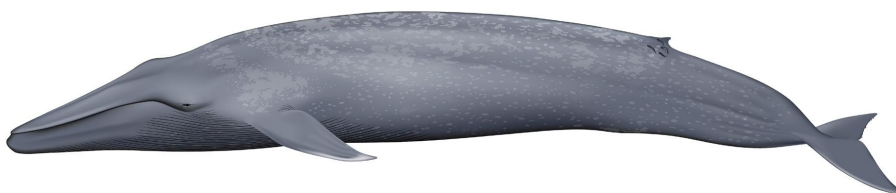
Humpback whale (*Megaptera novaeangliae*) 40-60 feet



Gray whale (*Eschrichtius robustus*) 39-46 feet



Fin whale (*Balaenoptera physalus*) 75-85 feet



Blue whale (*Balaenoptera musculus*) 88-108 feet



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