

SC/69A/IST/02

Sub-committees/working group name: IST

Ship strikes and entanglements of gray whales in the North Pacific Ocean, 1924-2021

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ABSTRACT

Non-hunting, human-caused injuries and mortalities (NHHCIM) can have significant impacts on cetacean populations. Gray whales are likely more vulnerable than most whale populations to interactions with humans due to their nearshore migratory and feeding behavior. We compiled all known sources of data on NHHCIM of gray whales in the North Pacific to document the frequency and source of NHHCIM. Data was compiled from national stranding and human-interaction databases, published reports, and newspaper articles. We documented 513 reports of NHHCIM of gray whales for the time period of 1924 through 2021. The majority of reports were from the time period of 1980 through 2021 when stranding networks were established along the US west coast. Of the 513 reports, 194 documented whale deaths. The remaining 319 reports were assessed using the policy developed by NOAA for distinguishing serious from non-serious injuries and prorating a probability of death to seriously injured whales and found that 250 documented serious injuries and 69 were non-serious injuries. Responders in the USA, Canada, and Mexico successfully disentangled 50 whales which resulted in the whale receiving non-serious injury. The sum of serious injuries and mortalities was 388.44 gray whales. The primary regions for reports were California (58%) and Northern California through Northern British Columbia (24%). The most common form of NHHCIM in gray whales was entanglement in net fisheries in the 1980s and 1990s. In the 2000s and 2010s the most common cause of NHHCIM was entanglement were pot fishery gear and entanglements of an unknown source. During the 2020s, unknown entanglements and ship strikes were the most common source of NHHCIM. During the five most recent years of data collection (2017-2021) there was an average of 14.3 NHHCIM per year which was substantially more than the previous five-year period of 2012-2016 which had 9.9 NHHCIM per year. This report represents a minimum estimate of the number of NHHCIM because it is difficult to definitively determine the cause of death of stranded whales, stranding networks had poor spatial coverage during all or part of the reporting time period, and because injured or killed whales not documented at sea may not wash to shore or be reported at-sea.

INTRODUCTION

The International Whaling Commission (IWC) carefully evaluates the potential impacts of permitted whale hunts through a management strategy evaluation (MSE) process called an implementation review (Punt and Donovan, 2007). The implementation review incorporates known and estimated parameters to forecast the future trajectory of hunted whale populations for 100 years modeling period. Multiple trials are run to account for uncertainty in parameters used in the modeling to allow evaluation of hunt impacts under a variety of plausible scenarios. Some parameters, such as removals due to hunting, are easily incorporated into the modeling because hunters and government agencies that oversee the hunts keep records of removals. Other parameters, such as the rate of growth at the maximum sustainable yield level, have more uncertainty and a range of plausible values for the growth rate must be modeled.

One parameter that is hard to estimate is the amount of mortality in the population due to non-hunting activities of humans. Non-hunting, human-caused injuries and mortality (NHHCIM) can have significant impacts on whale populations (Moore, 2014). Gray whales are likely at greater risk of interaction with fishing gear than other great whales in North Pacific due to their nearshore migratory and feeding behavior (Ford et al., 2013). The IWC incorporated estimates of NHHCIM into an *Implementation Reviews* (IR) that were completed in 2013 (International Whaling Commission, 2014) and 2020 (International Whaling Commission, 2020) and in a range wide review of gray whale stock structure and status (International Whaling Commission, 2018). The 2020 IR utilized data on NHHCIM from Scordino et al. (2020). The IR modeled mortalities from NHHCIM multiplied by 4 in the base case to increase

the number of observed mortalities to a plausible amount accounting for under reporting based on recovery rates of bottlenose dolphins (Carretta et al., 2016a). The IR also included trials with the number of observed mortalities multiplied by ten and 20 and trials with the observed mortalities and serious injuries.

The objective of this paper is to provide an update to Scordino et al. (2020) with three additional years of data (2019-2021) of known records of NHHCIM of gray whales throughout the North Pacific Ocean.

METHODS

Methods for compiling NHHCIM data is described in Scordino et al. (2017, 2020). To update Scordino et al. (2020) with data from 2019 through 2021, we sent inquiries to government officials and university researchers that maintain marine mammal stranding and human interaction databases from countries that border the range of gray whales in the North Pacific Ocean. Reports of NHHCIM were provided for this updated analysis for all gray whale range states with the exceptions of Russia and China.

Each event causing an injury, or having the potential to cause an injury, to a whale with an unknown outcome on the whale's survival was analyzed using a classification procedure developed by NOAA (2012) to account for the uncertainty in outcome of injuries to large whales due to entanglements and ship strikes. This procedure makes it possible to prorate mortality values for injuries based on the known fates of individual whales observed with similar injuries in the past. The full list of classifications used are listed in appendix 1.

Data was summarized by season, year, and region for the number of serious injuries, non-serious injuries, and deaths due to non-hunting human interactions. Data was also examined for trends in interaction types through time and by regions.

All NHHCIM reports used in this paper are listed in appendix 2.

RESULTS AND DISCUSSIONS

We documented 513 reported incidents of NHHCIM with gray whales from 1924 through 2021 with the majority of records occurring after 1980 when most gray whale range states had developed stranding networks. Of the 513 reports, 194 involved incidents where the whale was known to have died, 250 resulted in serious injuries in which the fate of the whale was not known, and 69 resulted in non-significant injuries which were not expected to cause the whale's death. Using the methodology developed by NMFS, we determined that the serious injuries likely resulted in an additional 194.44 mortalities resulting in a total estimate of 388.44 mortalities due to non-hunting human interactions. During the five most recent years of data collection (2017-2021) there was an average of 14.3 NHHCIM per year which was substantially more than the previous five-year period of 2012-2016 which had 9.9 NHHCIM per year. By season, 393 reports of NHHCIM were during the migratory season, 109 were during the feeding season, and 11 did not have enough information to assess season. NHHCIM was most commonly reported in the modeling regions of California (58%) and Northern California through Northern British Columbia (24%). The fact that the majority of reports occurred along the US west coast may in part be an artifact of the region establishing a stranding network sooner and having more complete reporting than other regions.

The number of NHHCIM mortalities (deaths plus prorated serious injuries) was dynamic by year (Figure 1). The number of NHHCIM mortalities per year had peak occurrences from 1985-1988 and 2017-2019. The primary causes of NHHCIM of gray whales were net fisheries (36.2%), unknown entanglements (23.2%), ship strikes (20.8%), and pot fisheries (16.9%). Many of the unknown entanglements were described as ropes and sometimes included descriptions of attached buoys and were likely from pot fisheries, but lacked enough detail in reporting to classify as a pot fishery. We found that the relative contribution of mortalities by interaction type changed by decade (Figure 2). Prior to 1980 through the 1990s, entanglement in net fisheries were the most commonly reported source of NHHCIM. In the 2000s and 2010s, the primary cause of NHHCIM shifted to pot fisheries and unknown entanglements. The unknown entanglements were often described as ropes or lines that sometimes had buoys attached. It is likely that many, if not most, of the unknown entanglements were from pot fisheries that could not be definitively assigned to a pot fishery. In the 2020s, the two most common sources of NHHCIM were unknown entanglements and ship strikes. As noted previously, the unknown entanglements likely include pot fisheries. The large increase in the proportion of whales documented as ship strike may be due to the extra diligence in performing necropsies of dead gray whales due

to the unusual mortality event from 2019 through present (Fauquier et al., 2022) resulting in improved documentation of ship strike injuries. In the data set there were a couple of odd NHHCM reported including whales trapping themselves under docks (2 cases) and being entangled in a bed frame.

The shift in primary contributing factor of NHHCM from net fisheries to pot fisheries could be caused by a variety of reasons. One possible reason is that gillnet fishing effort declined. Barlow et al. (1994) reported that almost all gillnet fisheries on the west coast of the United States and Canada had declined in effort from the 1980s. Changes in regulations in the California halibut and white seabass set-net fishery were also instrumental in reducing gray whale entanglements in nets. In 1990, rules were put in place to prohibit fishing in state waters south of Point Arguello and within 70 fathoms or one mile, whichever is less, around the Channel Islands (Barlow et al., 1994). In 2002, the California Department of Fish and Game added additional regulations and prohibited the set-net fishery in ocean waters less than 60 fathoms from Point Reyes to Point Arguello (Carretta et al., 2015b).

The number of reports, and expected mortalities, represents a minimum estimate of number of non-hunting, human-caused mortality of gray whales in the North Pacific during the duration of time this analysis covers. Stranding networks were not well established in the United States until the 1980s and were not established in Canada until 2007. Without dedicated effort prior to establishment of stranding networks to find strandings and determine cause of death of whales, it is likely that many NHHCM were not recorded. Some areas, like Alaska, are logistically challenging for stranding network operations due to the extensive coastline, sparse population, and extensive regions that are not easily accessible (Heyning and Dahlheim, 1995). It is often difficult for responders to determine the cause of death of a stranded whale. Heyning and Lewis (1990) noted that whales that were observed at sea entangled sometimes stranded with no signs of entanglement. The challenge also occurs for ship struck whales because the stranding responders can often determine that trauma has occurred, but cannot determine if the trauma happened antemortem or postmortem or if the trauma observed could be confidently identified as caused by a ship or entanglement (Douglas et al., 2008). Last, an unknown portion of the whales that die at sea due to human interactions do not wash to shore (Punt and Wade, 2012, Williams et al., 2011, Carretta et al., 2016).

ACKNOWLEDGEMENTS

This paper would not be possible without the dedicated efforts of many individuals to collect and record NHHCM data.

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Tables and Figures

Table 1: Regions representing frequently used feeding grounds and migratory coordinators of gray whales.

Region Name	Acronym	Description
Mexico	M	All waters adjacent to Mexico including the wintering lagoons
California	CA	Waters adjacent to California from the Mexico border north to 41° N.
British Columbia to Northern California	NBNC	Waters from 41° N to 52° with the exception of waters of the Puget Sound
Puget Sound	PS	Waters of the Puget Sound and eastern Strait of Juan de Fuca.
Southeast Alaska	SEA	Waters from 52° N to the north and west to the Gulf of Alaska
Kodiak Island	K	Waters adjacent to Kodiak Island
Alaska	AK	Alaska not specified to specific area
Far North Feeding Grounds	FN	Northern feeding grounds of gray whales including the Gulf of Alaska, Alaska Peninsula, Bering Sea, Bering Strait, Bristol Bay, Chukchi Sea, and Beaufort Sea
East Kamchatka and Kuril Islands	EKKK	East Kamchatka and the Kuril Islands
Okhotsk Sea	OS	Areas of the Okhotsk Sea excluding waters adjacent to Sakhalin Island
Sakhalin Island	SI	Waters adjacent to Sakhalin Island
Eastern side of the Sea of Japan and Pacific coast of Japan	EJPJ	Waters adjacent to eastern side of the Sea of Japan and the Pacific coast of Japan
Korea and western side of Sea of Japan	KWSJ	Waters adjacent to Korea and western side of Sea of Japan
Vietnam to South China Sea	VSCS	Waters of Asia south of Korea and the Sea of Japan.

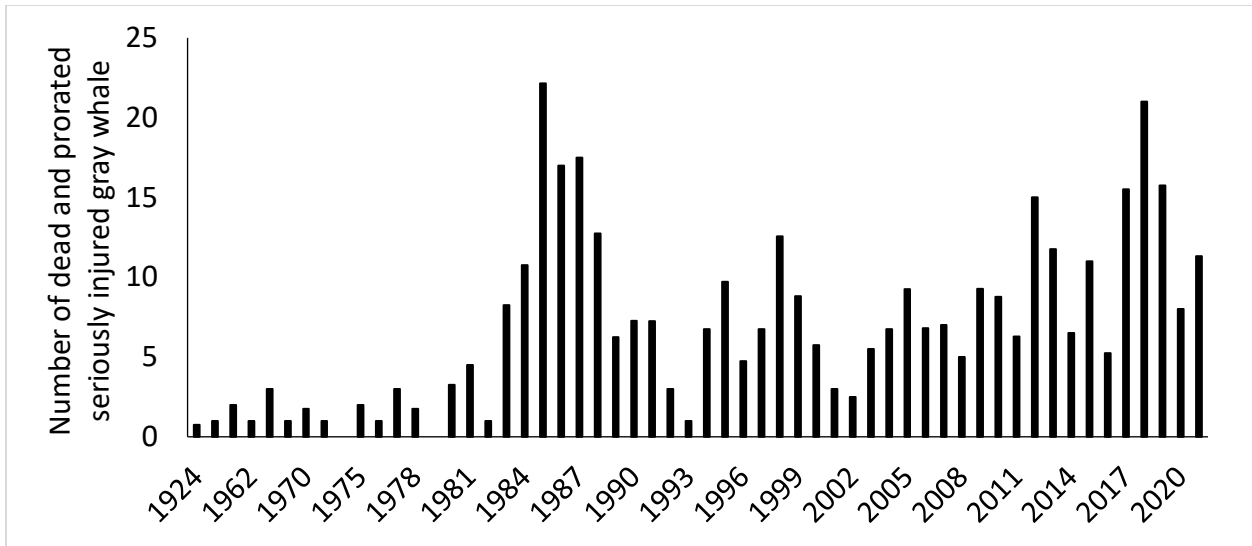


Figure 1: The observed number of non-hunting human-caused deaths and prorated serious injuries of gray whales in the North Pacific based on available reports from 1974 through 2021.

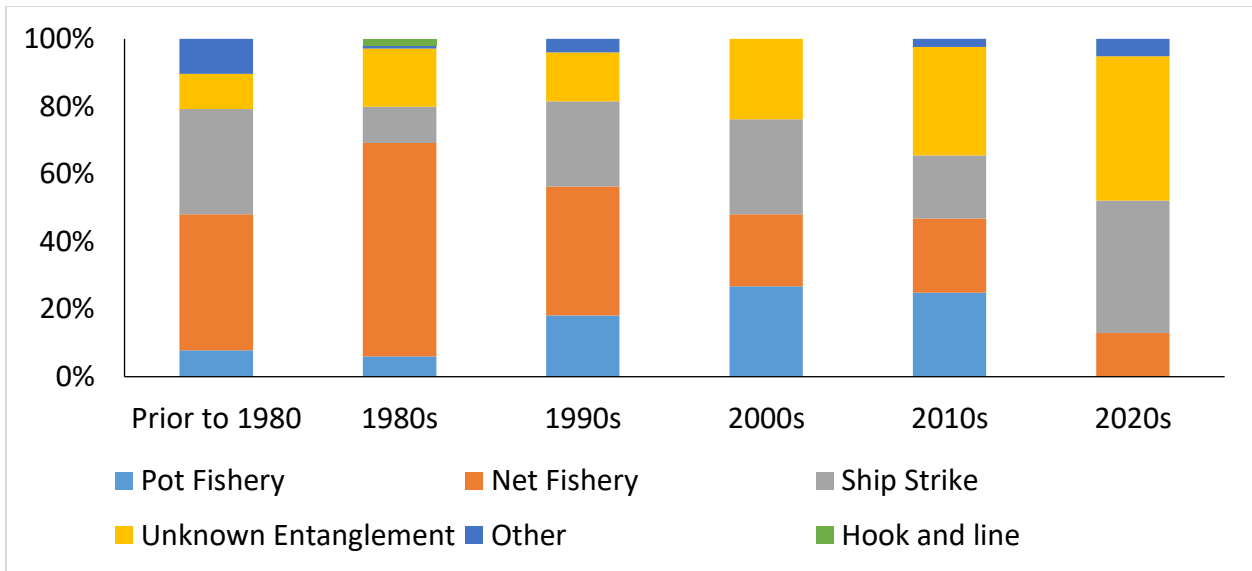


Figure 2: The proportion of observed mortalities plus serious injury due to net fisheries, pot fisheries, hook and line fisheries, other sources, unknown entanglements, and ship strikes by decade for gray whales in the North Pacific Ocean. The 2020s include 2020 and 2021 whereas other decades include data for all ten years. The period 'Prior to 1980' contains data collected prior to the establishment of nationwide stranding networks and is mostly informed by news reports and regional publications and was not collected as systematically as subsequent decades.

Appendix 1: Summary of Large Cetacean Injury Categories and Criteria (Table 1 from NOAA 2012)

<p>Instructions: Each large cetacean injury event is recorded to the appropriate injury/information category using all available information and scientific judgment, as described in the Procedural Directive. Criteria L10 - L12 accommodate events that lack details necessary for assignment to a more specific category. For a single injury event to which several categories apply, the injury determination with the highest level of severity is assigned. More detailed information or extended observation on an individual case/animal may justify a determination differing from the guidance of this table. An animal that is fully disentangled would generally be considered not seriously injured, unless there is additional evidence of a serious injury. Any injury leading to apparent significant health decline (e.g., skin discoloration, lesions near the nares, fat loss, increased cyamid loads) is a serious injury.</p>			
Category	Injury/ Information	Injury Determination	Criteria
L1	Ingested gear or hook(s)	SI 3	Swallowed, not simply draped through mouth
L2	Constricting wrap	SI	Tightly wrapped line anywhere on body that indents the skin or does not shift with whale's movement, or line that is likely to become constricting as the whale grows. Indication that a whale that is heavily weighted, anchored or has a discolored appendage is sufficient evidence of constricting gear
L3	Loose wrap, bridled or draped gear	NSI4	Loosely wrapped gear that moves or shifts freely with whale's movement. Absence of constricting gear must be confirmed
L4	External hook	NSI	Fishing hook of any size on any part of the body (i.e., not ingested)
L5a	Deep laceration ⁵	SI	Laceration with the potential to affect major artery (e.g., laceration or severing at insertion of flipper/fluke), penetrating body cavity, or cutting bone
L5b	Superficial laceration	NSI	Laceration not deeper than blubber layer, does not affect major artery, or cut bone
L6a	Vessel much greater in size than whale or vessel $\geq 65'$ and >10 knots	SI	Struck by vessel much greater in size than the whale and traveling greater than 10 knots, or struck by vessel equal or greater than 65' and traveling greater than 10 knots, and no information on injury to the whale

L6b	Vessel smaller in size than whale or vessel <65' and >10 knots	Prorate6: 0.20	Struck by vessel smaller in size than the whale and traveling greater than 10 knots, or struck by vessel less than 65' and traveling greater than 10 knots, and no information on injury to the whale. A strike to a calf by a vessel of any size and traveling greater than 10 knots will be considered a serious injury
L6c	Vessel any size ≤10 knots	NSI	Struck by vessel of any size traveling at equal or less than 10 knots and no information on injury to the whale
L7a	Vessel much greater in size than whale or vessel ≥65' and speed unknown	Prorate: 0.56	Struck by vessel much greater in size than the whale traveling at an unknown speed, or struck by vessel equal or greater than 65' and traveling at unknown speed, and no information on injury to the whale. A strike to a calf by a vessel of any size when speed is unknown will be considered a serious injury
L7b	Vessel smaller in size than whale or vessel <65' and speed unknown	Prorate: 0.14	Struck by vessel smaller than the whale traveling at an unknown speed, or struck by vessel less than 65' and traveling at unknown speed, and no information on injury to the whale. A strike to a calf by a vessel of any size when speed is unknown will be considered a serious injury
L8	Dependent7	SI	Dependent calf of a dead or seriously injured mother
L9	Brought on deck	SI	Whale removed from water and brought on deck
L10	Evidence of entanglement	Prorate: 0.75	Confirmed entanglement but insufficient information available to

			place in any of the L1-L4 criteria with a high degree of certainty
L11	Vessel strike laceration	Prorate: 0.52	Whale confirmed with non-entanglement related laceration but lacking details to place in either criteria L5a or L5b with a high degree of certainty. Includes observation of blood in water
L12	Vessel strike observed	Prorate: 0.36	Confirmed vessel strike report where there is insufficient detail to assign event to criteria L6a – L7b with a high degree of certainty. A strike to a calf by a vessel of unknown size traveling at an unknown speed will be considered a serious injury

Appendix 2. All known reports of NHHCM of gray whales in the North Pacific Ocean. Rows with orange highlight depict cases that were documented for the current analysis that were not included in Scordino et al. (2017). Injury determinations are SI – Serious Injury, NSI – Non Serious Injury, and Dead. SI are assigned a prorated chance of mortality as reported in appendix 1. Highlighted rows present data that were not included in Scordino et al. (2020) including all records from 2019 to 2021 and some records prior to 2019.

Date	Location	Model Region	Season	Interaction	Fishery	Remarks	Source	Final Assessment and Criteria	SI Proration Value
28-Oct-24	Monterey, CA	CA	Feeding	Net Fishery	Sardine Net	A young California gray whale reported to enter a sardine net. Whale broke through net but much of the net went with the whale, draped over the whale's head.	Oakland Tribune	SI - L10	0.75
16-Mar-55	Toyama (Toyama Bay) 36 41N, 137 12'E	EJPJ	Migratory	Unknown Entanglement	Unknown		Kato et al. 2016	Dead	1
9-Jan-61	San Francisco, CA	CA	Migratory	Other	Dock Entrainment	Whale entrapped itself in a dock between pilings. Whale injured itself against the ocean liner President Hayes in trying to escape. The whale was still stuck after the ocean liner was pulled away from dock. The whale was shot and killed by a humane officer.	Pottstown Mercury, 12 January 1961	Dead	1
1-Mar-61	San Diego County, Silverstand State Park	CA	Migratory	Net Fishery	Net Unknown	Stranded in some nets and exhibited injury	Brownell, 1971	Dead	1
13-Jul-62	Hermosa Beach, CA	CA	Feeding	Net Fishery	Net Unknown	Whale caught in net, net caught propeller of vessel, sharpshooters fired eight rifle shots to kill the whale. Boat became entangled when fisherman tried to rescue whale. [According to Brownell, 1971 event occurred on 13 Jun 1962]	The Daily Herald, Provo, Utah, 16 July 1962	Dead	1
27-Jan-63	Imperial Beach, CA	CA	Migratory	Ship Strike		Stranded. "Deep gash in its back and side indicated the possible cause of whale's death.	LA Times - 28 Jan 1963; Brownell, 1971	Dead	1
15-Jun-63	La Jolla	CA	Feeding	Net Fishery	Net Unknown	Whale caught in net and shot	Brownell, 1971	Dead	1
1-Aug-63	Portuguese Bend, Los Angeles County	CA	Feeding	Net Fishery	Net Unknown	Stranded after being caught in net	Brownell, 1971	Dead	1
19-Apr-67	Pales Verdes Peninsula, CA	CA	Migratory	Net Fishery	Net Unknown	Whale was presumably one that drowned in a fisherman's net two-weeks ago (April 2, 1967 according to LA Times; whale released from net after having been in net for more than 15 hours)	Independent (Long Beach) 19 April 1967	Dead	1
31-Mar-70	Hoh Head	NBNC	Migratory	Pot Fishery	Crab Pot	Live report. Crab float on flukes.	NOAA NWR - Joe Scordino files	SI - L10	0.75
1-Apr-70	Toyama (Toyama Bay) 36 41N, 137 12'E	EJPJ	Migratory	Unknown Entanglement	Unknown		Kato et al. 2016	Dead	1
19-Mar-71	400 miles south of San Diego	M	Migratory	Other	Research Hoop Net	Calf captured by Sea World for research and display. Whale was freed in March of 1972. 1977 article in Pittsburg Press suggests Gigi was confirmed alive based on photographs at the lagoon.	The Burlington Free Press, 19 Mar 1971, main edition	SI - L9	1

2-Oct-74	San Clemente, CA	CA	Feeding	Net Fishery	Net Unknown	Gray whale caught in net but managed to struggle free	The Greenville News, main edition, 6 Oct 1974	NSI - Self-released	0
23-Jan-75	San Diego, CA	CA	Migratory	Ship Strike		USCG 72-ton hydrofoil hit whale while traveling 50 mph. The tail was almost severed and the fin was badly cut. Whale died and towed out to sea. Vessel was considerably damaged.	The Indiana Gazette, 24 Jan 1975, page 14	Dead	1
15-Jul-75	Pt. Vincent, CA	CA	Feeding	Net Fishery	Net Unknown	28 foot gray whale washed ashore and will be dissected. It may have drowned after becoming entangled in a fishing net. On dissection noted parts of net embedded in tail.	Independent (Long Beach) 18 July 1975	Dead	1
6-Mar-76	Cape Mears	NBNC	Migratory	Ship Strike		Deep propeller cuts laterally extending into peritoneal.	NOAA NWR - Joe Scordino files	Dead	1
17-Feb-77	Neskowin	NBNC	Migratory	Ship Strike		Fractured tail stock; large abrading wound. Unknown if caused by vessel collision. Strand numbers SEAN 2075, OSU MM77-3	NOAA NWR - Joe Scordino files	Dead	1
20-Feb-77	North Cove	NBNC	Migratory	Ship Strike		Fractured skull, propeller slash on peduncle and flukes severed suggesting collision. Lactating. Strand numbers SJJ-076, SEAN 2076	NOAA NWR - Joe Scordino files	Dead	1
16-Mar-77	Huntington Beach	CA	Migratory	Ship Strike		Lifeguard Pierce said the huge body bore many wounds, and photographs showed marks similar to those that might have been made by a big ship's propellers	LA Times, 16 Mar 1977	Dead	1
18-Mar-78	Winchester Bay, OR	NBNC	Migratory	Pot Fishery	Pot Gear	Barnacle encrusted whale caught in crap pot line, sighted by USCG. Could not find later.	The Statesman Journal, Salem 18 May 1978	SI - L10	0.75
14-Sep-78	Neah Bay	NBNC	Feeding	Net Fishery	Gillnet	entangled in gillnet; skeleton curated by UPS museum. Strand number SJJ-144, UPS-26811, SEAN 3358, MMD-78-003	NOAA NWR - Joe Scordino files	Dead	1
29-May-79	Neah Bay	NBNC	Migratory	Net Fishery	Gillnet	tangled in gillnet and released [most likely a salmon set net]	NOAA NWR - Joe Scordino files	NSI - Released	0
1-Mar-80	Halfmoon Bay, CA	CA	Migratory	Ship Strike		The huge whale was killed when struck by a freighter this weekend. Could have been Feb 29th.	Santa Cruz Sentinel, 7 Mar 1980 page 42	Dead	1
2-Apr-80	Cabrillo Beach, CA	CA	Migratory	Unknown Entanglement	Unknown	Lifeguard dove with whale to disentangle it from a bundle of rope wrapped around tail of whale. Whale was disentangled.	Argus Leader (Sioux Falls, SD), 4 Apr 198-	NSI - Released	0
15-Apr-80	Cape Lookout	NBNC	Migratory	Pot Fishery	Pot Gear	caught on crab pot line. Live, status unknown. Report number SEAN 5182	NOAA NWR - Joe Scordino files	SI - L10	0.75
14-Sep-80	Cape Flattery	NBNC	Feeding	Net Fishery	Net Unknown	live report, tangled in net. Reported by NMML	NOAA NWR - Joe Scordino files	SI - L10	0.75
1980-1982	Willapa Bay	NBNC		Pot Fishery	Crab Pot	Status unknown	NOAA NWR - Joe Scordino files	SI - L10	0.75
1981	Columbia River	NBNC		Net Fishery	Gillnet	Released.	NOAA NWR - Joe Scordino files	NSI - Released	0

1-Feb-81	Columbia River	NBNC	Migratory	Net Fishery	Gillnet	live, self released. Ripped through salmon gillnet. [may be same as 1981 gillnet report]	NOAA NWR - Joe Scordino files	NSI - Self-released	0
14-Mar-81	Santa Barbara, CA	CA	Migratory	Net Fishery	Gillnet	stranding, gillnet on caudal peduncle	Heyning and Lewis, 1990	Dead	1
5-May-81	Yaquina Bay	NBNC	Migratory	Pot Fishery	Crab Pot	live; caught in crab pot line; released. Strand number SEAN 6171 [not mention if self release or with assistance]	NOAA NWR - Joe Scordino files	NSI - Released	0
15-May-81	Sequim Bay	PS	Migratory	Net Fishery	Gillnet	Live report. Sighted with gillnet on flukes. Strand report SEAN 6173	NOAA NWR - Joe Scordino files	SI - L10	0.75
19-May-81	San Francisco, CA	CA	Migratory	Net Fishery	Net Unknown	30 foot gray whale ensnared in loose fishing net, visible from bridge during rush hour. Biologist from UC Berkley called to help free whale - no note on whether successful.	The Des Moines Register, 20 May 1981	SI - L10	0.75
30-May-81	Neah Bay	NBNC	Migratory	Net Fishery	Set Gillnet	Live, released. Caught in tribal set net; released. Strand number SEAN 6175	NOAA NWR - Joe Scordino files	NSI - Released	0
4-Jun-81	Palix River	NBNC	Feeding	Net Fishery	Shark Gillnet	Shark gillnet draped on whale; 37 pounds of net on flukes, tangled on bridge pilings, asphyxiated and died. Whale was seen alive on 5/31/81 at Willapa.	NOAA NWR - Joe Scordino files	Dead	1
15-Jun-81	Seattle	PS	Feeding	Other	Entrainment	Live, release. Ballard Locks; swam out [not entirely sure what report means but I am guessing whale swam into one of the locks for boats and got out]	NOAA NWR - Joe Scordino files	NSI - Self-released	0
22-Jun-81	Wauna	PS	Feeding	Hook and line	Hook and Line	Fishline and hooks in tongue; emaciated. Weight estimated at 3500 kg	NOAA NWR - Joe Scordino files	Dead	1
1-Aug-81	Newport	NBNC	Feeding	Net Fishery	Gillnet	Monofilament gillnet cut off flukes. [I assume this is 'cut off of flukes']	NOAA NWR - Joe Scordino files	NSI - Released	0
23-Dec-81	Everett	PS	Migratory	Net Fishery	Gillnet	unconfirmed report - caught in gillnet and released.	NOAA NWR - Joe Scordino files	NSI - Released	0
23-Mar-82	La Conchita, BEACH SOUTH OF RINCON POINT, VENTURA	CA	Migratory	Net Fishery	Gillnet	GILLNET WRAPPED AROUND TAIL [874 cm length according to Heyning and Lewis, 1990]	SWR Entanglement Database	Dead	1
1983	Alaska	AK		Net Fishery	Gillnet	Whale passed through net 4 times, several whales ripped net. Ennis' net.	Northwest Regional Office - Joe Scordino files	SI - L10	0.75
1983	Alaska	AK		Net Fishery	Gillnet	whale was in net and scared off with seal bombs. No note on whether the whale kept gear after leaving. Martin's net.	Northwest Regional Office - Joe Scordino files	SI - L10	0.75
1983	Alaska	AK		Net Fishery	Gillnet	Thru net; ripped net; Soresen's net	Northwest Regional Office - Joe Scordino files	SI - L10	0.75

31-Jan-83	San Diego, CA	CA	Migratory	Unknown Entanglement	Unknown	Floating. Possible rope marks at axilla and on right side.	Heyning and Lewis, 1990	Dead	1
2-Mar-83	Guerrero Negro, Mexico	M	Migratory	Ship Strike		In lagoons a tour group was watching a gray whale calf when a larger whale struck their boat. At least two passengers died. The report on the status of the whale.	Press and Sun Bulletin, 2 Mar 1983	NSI - L6C	0
1-Apr-83	China Beach, BC	NBNC	Migratory	Unknown Entanglement	Unknown	Unknown entanglement, Dead	Baird et al. 2002	DEAD	1
17-May-83	Estevan Point, BC	NBNC	Migratory	Net Fishery	Gillnet	Gillnet, Dead	Baird et al. 2002	DEAD	1
28-Jun-83	Area 4B, Neah Bay	NBNC	Feeding	Net Fishery	Set Gillnet	Caught in tribal set net; died.	NOAA NWR - Joe Scordino files	Dead	1
1-Nov-83	Santa Monica, CA	CA	Feeding	Other	Steel Wire	Gray whale was disentangled from steel wire by two CDFG wardens but later washed in dead	LA Times 14 Jul 1984	Dead	1
9-Dec-83	Rancho Palos Verdes	CA	Migratory	Net Fishery	Gillnet	Portions of gillnet on carcass	SWR Entanglement Database	Dead	1
1984	Alaska	AK		Net Fishery	Gillnet	Gillnet destroyed. Sorensen's net.	Northwest Regional Office - Joe Scordino files	SI - L10	0.75
1984	Alaska	AK		Net Fishery	Gillnet	thru net; webster's net.	Northwest Regional Office - Joe Scordino files	SI - L10	0.75
1984	Columbia River	NBNC		Net Fishery	Gillnet	dead	NOAA NWR - Joe Scordino files	Dead	1
1984	Neah Bay	NBNC		Net Fishery	Gillnet	In Cheeka's net. Gear damaged; Makah set net. Status of whale not reported.	NOAA NWR - Joe Scordino files	SI - L10	0.75
2-Jan-84	Gig Harbor	PS	Migratory	Unknown Entanglement	Unknown	tangled in ropes, released. Strand number MME 00884.	NOAA NWR - Joe Scordino files	NSI - Released	0
11-Feb-84	HUNTINGTON BEACH	CA	Migratory	Ship Strike		LEFT PECTORAL BROKEN OUT OF SOCKET; BACK BROKEN BEHIND BLOWHOLE	SWR CA 1983-87 datasheet	Dead	1
18-Feb-84	Rancho Palos Verdes	CA	Migratory	Net Fishery	Set Gillnet	ENTANGLED IN SET GILLNET; 10 FT OF HEMP ROPE TRAILING FROM ANIMAL; CONSIDERED A SUCCESSFUL DISENTANGLEMENT BECAUSE THOUGHT ROPE WOULD 'ROT OFF.'.	SWR Entanglement Database	SI - L10	0.75
3-Mar-84	Fort Canby	NBNC	Migratory	Net Fishery	Gillnet	6 fathoms of 8" gillnet around tail. WA State Parks buried carcass. [same as 1984 Columbia River entanglement?]	NOAA NWR - Joe Scordino files	Dead	1
21-Mar-84	Huntington Beach	CA	Migratory	Net Fishery	Gillnet	Gillnet around tail,	SWR Entanglement Database	Dead	1
11-Apr-84	Keyport	PS	Migratory	Unknown Entanglement	Unknown	tangled on ropes anchored to bottom. Asphyxiated.	NOAA NWR - Joe Scordino files	Dead	1

24-Apr-84	Boundary Bay, BC	NBNC	Migratory	Unknown Entanglement	Unknown	Unknown entanglement, Dead	Baird et al. 2002	DEAD	1
4-May-84	Cayucos	CA	Migratory	Net Fishery	Gillnet	8 inch gillnet around peduncle,	SWR Entanglement Database	Dead	1
Feb-Mar 1984	Columbia River	NBNC	Migratory	Net Fishery	Gillnet	Thru net. Johnson's net.	NOAA NWR - Joe Scordino files	SI - L10	0.75
4-Jan-85	13 MILES OFFSHORE DANA POINT	CA	Migratory	Net Fishery	Gillnet	COMPLETELY WRAPPED IN MONOFILAMENT GILLNET SEVERAL TIMES; 1/2 INCH POLYPRO LINE, NORWEGIAN FLOATS ATTACHED TO FLUKES; RIGHT PECTORAL FIN BADLY ABRAIDED; SIGNIFICANT BLEEDING [Heyning and Lewis recorded that it was alive and partially released by B. Talbot and resighted of Santa Barbara Island]	SWR Entanglement Database	SI - L10	0.75
10-Jan-85	20 MILES SOUTHWEST OF SANTA BARBARA ISLAND	CA	Migratory	Net Fishery	Gillnet	Entangled in gillnet,	SWR Entanglement Database	Dead	1
14-Jan-85	Santa Barbara	CA	Migratory	Net Fishery	Gillnet		Saez et al. 2020	DEAD	1
27-Jan-85	Camp Pendleton	CA	Migratory	Hook and Line	Hook and Line	FISHING LINE AROUND FLIPPERS; SLITTING ONE EYE; AND HOLDING WAD OF SEAWEED IN THROAT;,,	SWR Entanglement Database	Dead	1
28-Jan-85	SOUTH OF SANTA CRUZ ISLAND	CA	Migratory	Net Fishery	Set Gillnet	Entangled in gillnet, described as set net,	SWR Entanglement Database	NSI - Released	0
29-Jan-85	Mexico	M	Migratory	Net Fishery	Gillnet	ENTANGLED IN GILLNET; Status Unknown	SWR database	SI - L10	0.75
7-Feb-85	Port Hueneme, SPOTTED OFFSHORE PORT HUENEME AND OFFSHORE POINT MUGU	CA	Migratory	Net Fishery	Net Unknown	ANIMAL TOWING 1/4 MILE OF GILLNET; SPOTTED BY NEWS HELICOPTER,	SWR Entanglement Database	SI - L10	0.75
11-Feb-85	Vandenberg Air Force Base	CA	Migratory	Unknown Entanglement	Unknown	TAIL ENTANGLED BY UNIDENTIFIED ROPE AND A POLYSTYRENE FLOAT,	SWR Entanglement Database	Dead	1
15-Feb-85	Huntington Beach, OFFSHORE, HUNTINGTON BEACH	CA	Migratory	Net Fishery	Gillnet	Entangled in gillnet [alive according to Heyning and Lewis, 1990]	SWR Entanglement Database	SI - L10	0.75
21-Feb-85	Anacapa Island, 5 MILES NORTH OF ANACAPA ISLAND	CA	Migratory	Pot Fishery	Lobster Pot	TOWING LOBSTER TRAP LINE AND FLOAT FROM TAIL, ANIMAL APPEARED TO BE HAVING DIFFICULTY DIVING	SWR Entanglement Database	SI - L2	1
23-Feb-85	Huntington Beach, OFFSHORE BOLSA CHICA STATE BEACH, HUNTINGTON BEACH	CA	Migratory	Net Fishery	Gillnet	Entangled in gillnet,	SWR Entanglement Database	SI - L10	0.75

1-Mar-85	Bahía de La Paz	M	Breeding	Net fishery	Gillnet	fishing net around the head, stranded near to La Paz, BCS	You Tube (Canal 9 La paz)	Dead	1
12-Mar-85	San Diego, OFFSHORE POINT LOMA, SAN DIEGO	CA	Migratory	Net Fishery	Set Gillnet	Entangled in gillnet, described as set net,	SWR Entanglement Database	Dead	1
12-Mar-85	Seal Beach, OFFSHORE SEAL BEACH PIER	CA	Migratory	Unknown Entanglement	Unknown	Entangled, swimming towards beach	SWR Entanglement Database	Dead	1
25-Mar-85	San Pedro, LOS ANGELES HARBOR; CABRILLO BEACH PIER	CA	Migratory	Net Fishery	Set Gillnet	Entangled in gillnet, described as set net [self released according to Heyning and Lewis, 1990]	SWR Entanglement Database	NSI - Self-released	0
30-Mar-85	Oxnard	CA	Migratory	Net Fishery	Gillnet	Entangled in unknown net,	SWR Entanglement Database	Dead	1
30-Mar-85	Avalon, 10 MILES NORTHEAST OF AVALON, CATALINA ISLAND	CA	Migratory	Net Fishery	Gillnet	Entangled in unknown net,	SWR Entanglement Database	SI - L10	0.75
30-Mar-85	Ventura	CA	Migratory	Net Fishery	Gillnet		Saez et al. 2020	DEAD	1
31-Mar-85	Ventura	CA	Migratory	Net Fishery	Gillnet		Saez et al. 2020	DEAD	1
1-Apr-85	Rosarito Beach, CA	CA	Migratory	Ship Strike		During sail boat race a 41 foot sloop hit a whale while being pushed by a gentle southeasterly one mile off Rosario Beach. The whale became enraged and rammed the boat three times and hit it with its tail on the transom. [website for race says it is in April for 2017, not sure on timing in 1985]	LA Times, 14 Aug 1985	SI - L7b	0.14
2-Apr-85	Sunset Cliffs, CA	CA	Migratory	Net Fishery	Halibut Gillnet	Stranding. Halibut gillnet entangled in mouth, around blowhole and wrapped around right flipper, photo in Leatherwood et al. 1987:6	Heyning and Lewis, 1990	Dead	1
4-Apr-85	Ocean Beach	CA	Migratory	Net Fishery	Set Gillnet	CARCASS WRAPPED IN GILLNET; DESCRIBED AS SET NET; CARCASS TRANSPORTED TO LANDFILL (MIRAMAR DUMP) & BURIED BY CITY OF SAN DIEGO; GILLNET COLLECTED & TAKEN TO SOUTHWEST FISHERIES CENTER,	SWR Entanglement Database	SI - L10	0.75
8-Apr-85	La Jolla, IN SURF ZONE, LA JOLLA	CA	Migratory	Net Fishery	Set Gillnet	GILLNET ENTANGLING NEONATE; DESCRIBED AS SET NET, Swimming	SWR Entanglement Database	SI - L10	1
11-Apr-85	Long Beach Peninsula, WA	NBNC	Migratory	Ship Strike		Hit by a large vessel, unknown if the live when hit. 3 slashes. Flukes cut off; back broken, props severed the vertebrae; posterior to ventral prop slash. Length from Douglas et al. 2008	NWR-stranding database	Dead	1
17-Apr-85	San Diego, CORONADO ISLAND	CA	Migratory	Net Fishery	Set Gillnet	Entangled in gillnet, described as set net, Swimming	SWR Entanglement Database	SI - L10	0.75

23-Apr-85	Eureka, OFFSHORE EUREKA	NBNC	Migratory	Pot Fishery	Dungeness Crab	ENTANGLED IN CRAB POT LINES; ANIMAL SUCCESSFULLY RELEASED ALIVE BUT LIMITED INFORMATION AS TO HOW, ,	SWR Entanglement Database	NSI - Released	0
12-May-85	Pigeon Point, 100 YARDS DIRECTLY OFF PIGEON POINT, SAN MATEO	CA	Migratory	Unknown Entanglement	Unknown	TAIL APPEARS TO BE ENTANGLED IN SOME KIND OF LINE; APPEARS TEATHERED TO THE OCEAN BOTTOM WITH LINE,	SWR Entanglement Database	Dead	1
14-Jul-85	San Pedro, IN KELP OFF WHITE'S POINT, SAN PEDRO	CA	Feeding	Net Fishery	Set Gillnet	DEAD STRANDING ON SUNSET BEACH; GILLNET CUTS ON MANY PARTS OF EPIDERMIS; SET NET; ANIMAL WRAPPED IN GILLNET; DESCRIBED AS SET GILLNET,	SWR Entanglement Database	Dead	1
29-Jan-86	Point Loma, OFFSHORE POINT LOMA, SAN DIEGO	CA	Migratory	Net Fishery	Set Gillnet	Entangled in gillnet, described as set net,	SWR Entanglement Database	SI - L10	0.75
11-Feb-86	Malibu, OFFSHORE ZUMA BEACH, MALIBU	CA	Migratory	Net Fishery	Set Gillnet	Entangled in gillnet, described as set net,	SWR Entanglement Database	SI - L10	0.75
24-Feb-86	Malibu, POINT DUME, MALIBU	CA	Migratory	Net Fishery	Gillnet	ENTANGLED IN GILLNET, POSSIBLY HALIBUT GILLNET; DISENTANGLEMENT BY A LIFEGUARD WHO WAS ABLE TO CUT ANCHOR ROPE OFF NET; ANIMAL THEN SWAM AWAY; TRAILING THE REMAINDER OF THE NET,	SWR Entanglement Database	SI - L10	0.75
28-Feb-86	Pt. Loma, CA	CA	Migratory	Net Fishery	Gillnet	Alive. Neonate wrapped in gillnet [date was recorded inaccurately as 29 Feb 1986 in Heyning and Lewis, JS changed to 28 Feb 1986]	Heyning and Lewis, 1990	SI - L10	1
4-Mar-86	OFF BALBOA PIER, NEWPORT BEACH	CA	Migratory	Pot Fishery	Pot Gear	TANGLED IN TRAP LINE/TRAP GEAR, Swimming normally	SWR Entanglement Database	SI - L10	0.75
10-Mar-86	OFF HORSESHOE KELP, HUNTINGTON BEACH	CA	Migratory	Net Fishery	Gillnet	ENTANGLED IN GILLNET; RELEASED WITH 30 FT OF NET,	SWR Entanglement Database	SI - L10	0.75
22-Mar-86	NEAR MONTEREY HARBOR ENTRANCE	CA	Migratory	Net Fishery	Gillnet	TOWING ABOUT 20 'BASEBALL SIZED' FLOATS AND NETTING,	SWR Entanglement Database	SI - L10	0.75
31-Mar-86	OUTSIDE OF SANTA BARBARA HARBOR	CA	Migratory	Net Fishery	Halibut Gillnet	ENTANGLED IN GILLNET; CAUGHT IN ACTIVE HALIBUT GILLNET,	SWR Entanglement Database	SI - L10	0.75
1-Apr-86	Santa Barbara	CA	Migratory	Unknown Entanglement	Unknown		Saez et al. 2020	SI - L10	0.75
2-Apr-86	OFFSHORE OCEANSIDE	CA	Migratory	Unknown Entanglement	Unknown	ENTANGLED; ANIMAL DISENTANGLED, NO NOTES ON DISENTANGLEMENT [Heyning thought partial release]	SWR Entanglement Database	SI - L10	0.75
2-Apr-86	Santa Barbara	CA	Migratory	Net Fishery	Unknown		Saez et al. 2020	SI - L10	0.75

3-Apr-86	Newport	NBNC	Migratory	Pot Fishery	Crab Pot	live. Sighted tangled in crab line. OSU report	NOAA NWR - Joe Scordino files	SI - L10	0.75
10-Apr-86	SANTA BARBARA COUNTY	CA	Migratory	Unknown Entanglement	Unknown	ENTANGLED; DISENTANGLED, UNCERTAIN ABOUT RESPONSE [HEYNING THOUGHT PARTIAL RELEASE]	SWR Entanglement Database	SI - L10	0.75
15-Apr-86	Gaviota, GAVIOTA STATE BEACH, SANTA BARBARA	CA	Migratory	Unknown Entanglement	Unknown	FRESH CUTS ON LEFT FRONT FLIPPER & LEADING EDGES OF BOTH SIDES OF FLUKES; POSSIBLE NET/ROPE , BUT NOT PRESENT ON CARCASS, SUSPECT ENTANGLEMENT,	SWR Entanglement Database	Dead	1
25-Apr-86	OFF BELMONT OIL ISLAND, LONG BEACH	CA	Migratory	Net Fishery	Set Gillnet	ENTANGLED AROUND CAUDAL PEDUNCLE AND FLUKE BY SYNTHETIC YELLOW LINE AND MONOFILAMENT GILLNETTING, BLACK FLAGS ON FLOATS; SET NET,	SWR Entanglement Database	SI - L10	0.75
25-Apr-86	Malibu, PARADISE COVE	CA	Migratory	Net Fishery	Gillnet	EITHER MOTHER OR CALF ENTANGLED IN TRAPLINE; UNCLEAR WHICH ONE IS ENTANGLED; SUSPECT HALIBUT GEAR, Swimming	SWR Entanglement Database	SI - L10	0.75
27-Apr-86	Encinitas, ENCINITAS, SAN DIEGO	CA	Migratory	Net Fishery	Gillnet	ENTANGLED IN UNIDENTIFIED NET,	SWR Entanglement Database	SI - L10	0.75
27-Apr-86	OFFSHORE REFUGIO STATE BEACH, SANTA BARBARA	CA	Migratory	Net Fishery	Gillnet	ENTANGLED IN UNIDENTIFIED NET,	SWR Entanglement Database	SI - L10	0.75
29-Apr-86	Off Los Angeles, CA	CA	Migratory	Unknown Entanglement	Unknown	Alive. Released (probably only partial release)	Heyning and Lewis, 1990	SI - L10	0.75
28-May-86	Bellingham Bay	PS	Migratory	Pot Fishery	Pot Gear	Live. Sighted with rope/line/buoy on tail.	NOAA NWR - Joe Scordino files	SI - L10	0.75
28-Dec-86	San Pedro, ALONG BREAKWATER	CA	Migratory	Net Fishery	Set Gillnet	ENTANGLED IN MONOFILAMENT SET GILLNET, Swimming south	SWR Entanglement Database	SI - L10	0.75
31-Dec-86	San Pedro, 1000 YARDS OFFSHORE POINT FERMIN	CA	Migratory	Net Fishery	Set Gillnet	ANCHORED TO OCEAN FLOOR WITH MONOFILAMENT SET NET, 2-3 INCH STRETCH OPENING MESH, YELLOW POLYPRO LINES ON CAUDAL PEDUNCLE, Swam away after entanglement removed [Heyning reports that net remained on whale when it swam off]	SWR Entanglement Database	SI - L10	0.75
1987	Alaska	AK		Net Fishery	Gillnet	entangled in gillnet	Northwest Regional Office - Joe Scordino files	SI - L10	0.75
6-Jan-87	1.5 MILES SOUTHWEST OF PALOS VERDES POINT	CA	Migratory	Net Fishery	Set Gillnet	BLEEDING WOUNDS FROM SET GILLNET WRAPPED TIGHTLY AROUND FLUKES, Swimming west	SWR Entanglement Database	SI - L2	1
21-Jan-87	1/2 MILE SOUTH OF ARROYO GRANDE CREEK	CA	Migratory	Ship Strike		DEAD STRANDING; APPEARED TO HAVE BEEN HIT BY A BOAT PROPELLER	SWR Ship Strike Database	Dead	1
22-Jan-87	Palos Verdes, CA	CA	Migratory	Net Fishery	Gillnet	Dead. Animal was observed entangling itself in set gillnet by Sjors Horstman on 22 January; after about 5 min. of thrashing, the whale did not surface again; dead whale floated to surface	Heyning and Lewis, 1990	Dead	1

						wrapped in gillnet on 29 January; on 20 Jan. a Calif. Dept. of Fish & Game boat examined floating whale and removed netting; whale stranded on 31 January and was examined by J. Heyning; by this time it was impossible to document that it has been entangled in a gillnet.			
29-Jan-87	Los Angeles	CA	Migratory	Net Fishery	Unknown		Saez et al. 2020	DEAD	1
5-Feb-87	Malibu, LA CHUSA POINT; WEST OF TRANCAS BEACH, MALIBU	CA	Migratory	Net Fishery	Set Gillnet	ANIMAL WRAPPED UP IN SET GILLNET BY FLUKES AND ANCHORED TO THE BOTTOM, ID NUMBERS WERE ON LARGE RED FLOATS, Could surface but not moving, aggressive during entanglement response, swam south after release [Heyning and Lewis report that 5 m of net remained on whale]	SWR Entanglement Database	SI - L10	0.75
6-Feb-87	San Pedro, AT END OF WEYMOUTH ROAD, SAN PEDRO	CA	Migratory	Net Fishery	Gillnet	NET MARKS AROUND FLIPPERS AND THORACIC REGION; SUSPECT ENTANGLEMENT, BUT NOT GEAR FOUND ON CARCASS,	SWR Entanglement Database	Dead	1
14-Feb-87	50 METERS FROM SOUTHEAST SIDE OF VENTURA RIVER MOUTH	CA	Migratory	Ship Strike		DEAD STRANDING; 4-5 PROPELLER LACERATIONS THROUGH VERTEBRAE DORSALLY AT BASE OF TAIL; SKIN SLOUGHING	SWR Ship Strike Database	Dead	1
5-Mar-87	Newport Beach, OFF BALBOA PIER, NEWPORT BEACH	CA	Migratory	Pot Fishery	Pot Gear	TRAILING SMALL BULLET BUOY AND LINE; CRAB AND LOBSTER TRAP GEAR, Heading north along the coast	SWR Entanglement Database	SI - L10	0.75
11-Mar-87	Palos Verdes, CA	CA	Migratory	Unknown Entanglement	Unknown	Alive. Entangled juvenile. [Reported as dead and floating belly up in LA Times on 13 Mar 87]	Heyning and Lewis, 1990	SI - L10	0.75
1-Apr-87	Port Orford	NBNC	Migratory	Pot Fishery	Crab Pot	Live. Caught on crab pot line. OSU report.	NOAA NWR - Joe Scordino files	SI - L10	0.75
2-Apr-87	Oceanside, OCEANSIDE, SAN DIEGO	CA	Migratory	Net Fishery	Net Unknown	ENTANGLED IN UNIDENTIFIED NETTING; RELEASE ATTEMPT SUCCESSFUL,	SWR Entanglement Database	NSI - Released	0
5-Apr-87	Oxnard, OXNARD	CA	Migratory	Unknown Entanglement	Unknown	ENTANGLED IN UNKNOWN GEAR; DISENTANGLED, BUT LIMITED INFORMATION [Heyning and Lewis report that probably only partial release]	SWR Entanglement Database	SI - L10	0.75
6-Apr-87	Oceanside, OCEANSIDE, SAN DIEGO	CA	Migratory	Net Fishery	Halibut Gillnet	ENTANGLED IN GILLNET; DESCRIBED AS SET NET, [Heyning reports as halibut net and that released by Sea World]	SWR Entanglement Database	NSI - Released	0
10-Apr-87	Malibu, OFF POINT DUME, MALIBU	CA	Migratory	Net Fishery	Set Gillnet	ENTANGLED IN GILLNET; ID NUMBERS FROM GEAR USED TO CONTACT OWNER AND NMFS ATTORNEY LETTER INCLUDED,	SWR Entanglement Database	SI - L10	0.75
12-Apr-87	Zuma Beach, CA	CA	Migratory	Net Fishery	Gillnet	Alive. Released by lifeguards from halibut net. (probably only partial release)	Heyning and Lewis, 1990	SI - L10	0.75
17-Apr-87	Carlsbad, TIERRA DEL MAR REEF; SOUTH OF	CA	Migratory	Net Fishery	Set Gillnet	DEAD STRANDING; ANIMAL ENTANGLED IN GILLNET; DESCRIBED AS SET NET,	SWR Entanglement Database	Dead	1

	POWER PLANT, CARLSBAD											
20-Apr-87	NAVAL WEAPONS STATION	CA	Migratory	Ship Strike			DEAD STRANDING; 18 PROPELLER SLASHES ANTERIOR TO GENITAL SLIT DOWN TO CAUDAL PEDUNCLE	SWR Ship Strike Database	Dead	1		
2-May-87	FORT BAKER	CA	Migratory	Ship Strike			DEAD STRANDING; PROPELLER CUTS, INDICATING COLLISION WITH LARGE VESSEL; LACTATING	SWR Ship Strike Database	Dead	1		
4-May-87	Perryville	FN	Migratory	Entanglement	Unknown		entangled, reported as human interaction, estimated to be 20 feet	Alaska Regional Office	DEAD	1		
12-Aug-87	21 MILES NORTHWEST OF POINT LOMA	CA	Feeding	Net Fishery	Gillnet		GRAY WHALE ENTANGLED IN FISHING NET OFF OF POINT LOMA REPORTED BY FISHERMAN WHO HAD SNAGGED IT WHILE 'TROLLING'; RESCUE TEAM ARRIVED AND WORKED FOR THREE HOURS TO REMOVE THE NET; UNCLEAR IF PORTION OF NET REMAINED,	SWR Entanglement Database	SI - L10	0.75		
19-Nov-87	APPROXIMATELY 5NM FROM POINT LOMA	CA	Feeding	Net Fishery	Gillnet		BRAIDED NYLON NET (NOT MONOFILAMENT) WRAPPED SEVERAL TIMES AROUND ANIMAL'S HEAD WITH A STRETCH MESH OF 12-16 INCH; GREEN IN COLOR,	SWR Entanglement Database	SI - L10	0.75		
11-Jan-88	SAN FRANCISCO BAY	CA	Migratory	Ship Strike			NON-OVULATING FEMALE, DEAD 36-48 HOURS; FLOATING CARCASS TOWED TO NMFS DOCK AT TIBURON; KILLED BY LARGE SHIP'S PROPELLER, SEVERING SPINAL CORD AT SKULL'S OCCIPITAL CONDYLES DORSALLY; ADDITIONAL 4 FOOT INCISION IN CAUDAL REGION	SWR Ship Strike Database	Dead	1		
16-Jan-88	Seal Beach, 2 MILES OFFSHORE FEDERAL BREAKWATER SEAL BEACH	CA	Migratory	Net Fishery	Gillnet		TAIL LACERATED BY RED MONOFILAMENT NET 3-4 INCH IN DIAMETER; NET OVER MOUTH; BLOWHOLE; AND FLUKES: LINE OR SMALL CABLE ON BODY; NET REMOVED FROM HEAD, BODY, BUT TRAILING 10 FEET OF GEAR, Heading north towards Point Ferman	SWR Entanglement Database	SI - L2	1		
28-Jan-88	San Diego, 1 MILE OFFSHORE OCEAN BEACH AREA	CA	Migratory	Pot Fishery	Pot Gear		BUOYS AND ROPES ENTANGLED AROUND CAUDAL PEDUNCLE, CRAB OR LOBSTER POT SUSPECTED; NUMBER ON TRAP, ORANGE [Heyning reports as released, B. Pittman SWFSC]	SWR Entanglement Database	NSI - Released	0		
5-Mar-88	California	CA	Migratory	Ship Strike			a whale-watching boat observed a whale struck by a ship. Last whale in pod. All whales reacted late to boat as they were within about 30 m. The whales accelerated and dove, the last whale in group not down quick enough.	Heyning and Dahlheim, 1994	Dead	1		
7-Mar-88	San Pedro, CA	CA	Migratory	Ship Strike			Freighter hit a 35 foot gray whale accompanied by a calf. Observed by a whale watch boat full of school kids. [Incident mentioned in Heyning and Dahlheim (1994) of whale watch boat watching a freighter strike whale in back of group on 5 Mar 1988 with no note of calf; could be the same incident]	San Bernardino County Sun, 8 Mar 1988	Dead	1		
7-Mar-88	San Pedro, CA	CA	Migratory	Ship Strike			Freighter hit a 35 foot gray whale accompanied by a calf. Observed by a whale watch boat full of school kids. [Incident mentioned in Heyning and Dahlheim (1994) of whale watch boat watching a freighter strike whale in back of group on 5 Mar 1988 with no note of calf; could be the same incident]	San Bernardino County Sun, 8 Mar 1988	SI - L8	1		
10-Mar-88	Coronado, 2 MILES OFFSHORE; IN FRONT OF	CA	Migratory	Net Fishery	Gillnet		ENTANGLED IN GILLNET; MARKED AS SET NET, BUT THEN HAND-WRITTEN WITH UNKNOWN "GILLNET" SO GILLNET SUSPECT [Heyning reports released from set net H. Bernard SWFSC]	SWR Entanglement Database	NSI - Released	0		

	"CORONADO TOWERS", CORONADO									
16-Mar-88	1 MILE SOUTHWEST OF LONG BEACH HARBOR ENTRANCE BUOY	CA	Migratory	Unknown Entanglement	Unknown	ENTANGLED, UNIDENTIFIED GEAR; Entangled, Unidentified Gear; Lifeguards Responded, But Called Off; Mbc Personnel Continued Search, But Suspended Due To Conditions; Animal Not Resighted - Unknown	SWR Entanglement Database	SI - L10	0.75	
16-Mar-88	Point Loma, OFF POINT LOMA, SAN DIEGO	CA	Migratory	Net Fishery	Gillnet	ENTANGLED IN WHAT WAS CALLED 'GILLNET' BY PRIVATE CITIZEN,	SWR Entanglement Database	SI - L10	0.75	
17-Mar-88	NEWPORT BEACH, NEAR BALBOA PIER	CA	Migratory	Unknown Entanglement	Unknown	LINE WITH ONE FLOAT WRAPPED AROUND CAUDAL PEDUNCLE,	SWR Entanglement Database	SI - L10	0.75	
17-Mar-88	3.1 MILES OFF ANGEL'S GATE, SAN PEDRO	CA	Migratory	Net Fishery	Gillnet	FLOATING DEAD; MISSING SKIN, NETTING AND FLOAT WRAPPED AROUND CAUDAL PEDUNCLE; LACERATIONS ON TAIL STALK; TRANSVERSE ROPE MARK ACROSS THROAT,	SWR Entanglement Database	Dead	1	
18-Mar-88	Palos Verdes, OFF POINT VICENTE 1/8 MILE; RANCHO PALOS VERDES	CA	Migratory	Net Fishery	Gillnet	UNIDENTIFIED TYPE OF GILLNET, WITH LINES FOULING MOUTH AND THE BODY,	SWR Entanglement Database	SI - L10	0.75	
18-Mar-88	San Onofre, 80 YARDS OFF BEACH, SAN ONOFRE AREA	CA	Migratory	Net Fishery	Gillnet	ENTANGLED, UNIDENTIFIED GILLNET , WHALE DESCRIBED AS IMMOBILE AT 80 YDS OFF THE BEACH	SWR Entanglement Database	SI - L2	1	
19-Mar-88	Seal Beach, 3 MILES OFF SEAL BEACH BREAKWATER	CA	Migratory	Pot Fishery	Dungeness Crab	MARKER BUOYS WRAPPED ONCE OR TWICE AROUND FLUKES; CRAB POT LINE AND BOUY; DEEP LACERATIONS ON FLUKES; POSSIBLY CAUGHT IN GILLNET AS EXHALATION OBSERVED NEAR SOME GILLNET FLAGS, LABORED BREATHING AND REMAINING AT THE SURFACE; AFTER RELEASE IT SWAM AWAY WESTWARD AT ~ 3 KNOTS; MADE SEVERAL SHORT DIVES	SWR Entanglement Database	NSI - Released	0	
19-Mar-88	San Diego, CA	CA	Migratory	Pot Fishery	Pot gear	Alive. Caught in crab pot line, released [58 miles south of San Onofre]	Heyning and Lewis, 1990	NSI - Released	0	
22-Mar-88	Seal Beach, OFF ISLAND ESTER OIL PLATFORM, SEAL BEACH	CA	Migratory	Net Fishery	Gillnet	CAUDAL PEDUNCLE LACERATED BY 1/2 INCH POLYPROPYLENE LINES AND NYLON GILLNET, ANIMAL STRUGGLED WITH NET; OBSERVED AS ANIMAL DISENTANGLED ITSELF--ROLLED OVER IN THE NET WHILE SWIMMING TOWARD SHORE; STRUGGLED UNTIL IT LOOSEMED AND DISENTANGLED ITSELF; SWAM TOWARDS OPEN OCEAN	SWR Entanglement Database	NSI - Self-released	0	
22-May-88	Yakutat	SEAK	Migratory	Unknown Entanglement	Unknown	entangled, reported as human interaction, estimated to be 28 feet	Alaska Regional Office	DEAD	1	
4-Aug-88	Cape Scott, BC	NBNC	Feeding	Unknown Entanglement	Unknown	Unknown entanglement, Dead	Baird et al. 2002	DEAD	1	

22-Oct-88	Long Beach, ALAMEDA BAY, 3 MILES OFFSHORE; LONG BEACH	CA	Feeding	Net Fishery	Halibut Gillnet	FLUKES CAUGHT IN NET; BUOY LINE AROUND MID- BODY [Heyning reports that halibut net and partially released]	SWR Entanglement Database	SI - L10	0.75
21-Jan-89	NORTHWEST COAST OF SANTA CRUZ ISLAND	CA	Migratory	Net Fishery	Set Gillnet	DEAD STRANDING; NETTING, FLOATLINE, AND LEADLINE WRAPPED AROUND TAIL, 8 INCH MESH; BECAUSE OF MESH SIZE CONFIRMED AS SET GILLNET, ALSO FLOATS SAID "MADE IN CANADA",	SWR Entanglement Database	Dead	1
14-Mar-89	Dana Pt, TWO MILES OFFSHORE HARBOR ENTRANCE, DANA POINT	CA	Migratory	Net Fishery	Gillnet	POLYPROPYLENE LINE WRAPPED AROUND FLUKES, NETTING; ROCKFISH OR HALIBUT 'TRAMMEL NET' (NOT MONOFILAMENT); RESPONSE INITIATED, Swimming [partial release according to Heyning and Lewis]	SWR Entanglement Database	SI - L10	0.75
20-Mar-89	Santa Barbara, 5 1/2 MILES SOUTHWEST OF HARBOR ENTRANCE, SANTA BARBARA	CA	Migratory	Net Fishery	Gillnet	TWO 6 INCH NOTCHES ON LEADING EDGE OF FLUKES AT CAUDAL PEDUNCLE; BOTH BLEEDING; NET WAS ANCHORED, 600 LBS OF NETTING; WHALE IMMOBILE BY THE 4 56 INCH NORWEGIAN FLOATS AROUND FLUKES, Immobile	SWR Entanglement Database	SI - L2	1
22-Mar-89	Newport Beach	CA	Migratory	Net Fishery	Set Gillnet	CARCASS REPORTED FLOATING OFFSHORE WITH PINK MONOFILAMENT LINE HANGING FROM LOWER JAW; DESCRIBED AS SET NET; BEACHED CARCASS HAD NO NETTING ASSOCIATED,	SWR Entanglement Database	Dead	1
11-Apr-89	Rancho Palos Verdes, 1/8 MILE OFF OF MARINELAND, RANCHO PALOS VERDES	CA	Migratory	Unknown Entanglement	Unknown	UNIDENTIFIED LINE AND DARK FLOATS WRAPPED AROUND FLUKES,	SWR Entanglement Database	SI - L10	0.75
14-Apr-89	Camp Pendleton, COCKLESHELL BEACH, CAMP PENDELTON, SAN DIEGO; COCKLEBURR BEACH, AREA #31	CA	Migratory	Net Fishery	Gillnet	DEAD STRANDING; NET MARKS ON VENTRAL SURFACE; DEEP SLASH MARKS AT BASE OF LEFT FLIPPER; NO GEAR ON CARCASS,	SWR Entanglement Database	Dead	1
4-May-89	Long Beach, 1 1/2 MILES SOUTH OF LONG BEACH BREAKWATER, LONG BEACH	CA	Migratory	Net Fishery	Set Gillnet	SLIGHT DAMAGE TO RIGHT SIDE OF FLUKE, 8 INCH HALIBUT GILLNET,	SWR Entanglement Database	SI - L10	0.75
20-May-89	Bristol Bay	FN	Migratory	Net Fishery	Set Gillnet	reportedly calf in vicinity and subsistence salmon set gillnet: steel anchors, entire net. Freed with extensive damage to gillnet and lines.	Alaska Regional Office	NSI - Released	0
29-Jun-89	Umpqua River, OR	NBNC	Feeding	Net Fishery	Net Unknown	Whale caught in net. Diver was able to cut what he thought was all of the gear off. Whale settled down after he started to let him finish.	Statesman Journal	NSI - Released	0

									(Salem), 1 July 1989
15-Feb-90	Laguna Beach, 1 MILE OFFSHORE	CA	Migratory	Net Fishery	Set Gillnet	ANIMAL FLOATING DEAD; HEAD AND TORSO WRAPPED IN GREEN MONOFILAMENT (SUSPECTED SET NET) ACCESS DATABASE ONLY: GILLNET WITH ATTACHED ANCHOR AND HALIBUT GEAR,	SWR Entanglement Database	Dead	1
16-Feb-90	Santa Barbara	CA	Migratory	Unknown Entanglement	Unknown	SWIRL OF GOLD COLORED NYLON LINE/ROPE AROUND AND IN WHALE'S MOUTH; , Tired and stationary	SWR Entanglement Database	SI - L2	1
27-Mar-90	Santa Barbara	CA	Migratory	Net Fishery	Set Gillnet	ANIMAL COMPLETELY WRAPPED IN SET NET,	SWR Entanglement Database	SI - L2	1
7-Apr-90	Long Beach, 2 MILES OFFSHORE BELMONT PIER, LONG BEACH	CA	Migratory	Net Fishery	Set Gillnet	SPORTFISHING VESSEL CAME ACROSS A WHALE IN A SET GILLNET; REPORTEDLY ENTANGLED BY FLUKES, THRASHING AT SURFACE; GILLNETTER OBSERVED BY SFV TO BE PULLING NET TO WITHIN 60 FEET OF GILLNET VESSEL, Thrashing at surface	SWR Entanglement Database	SI - L10	0.75
20-May-90	RED, WHITE, AND BLUE BEACH; 4 MILES NORTH OF SANTA CRUZ	CA	Migratory	Net Fishery	Set Gillnet	DEAD STRANDING; LARGE MASS OF NETTING WRAPPED AROUND FLUKES AND CAUDAL PEDUNCLE; "HALIBUT" SET GILLNET WITH 2 ANCHORS,	SWR Entanglement Database	Dead	1
24-May-90	Edmonds	PS	Migratory	Ship Strike		live injured gash on back	NOAA NWR - Joe Scordino files	SI - L11	0.52
11-Jun-90	Kitasu Bay, Swindle Island, BC	NBNC	Feeding	Net Fishery	Gillnet	Gillnet, Dead	Baird et al. 2002	DEAD	1
20-Jun-90	Grays Harbor	NBNC	Feeding	Net Fishery	Gillnet	Tangled in gillnet, freed itself.	NOAA NWR - Joe Scordino files	NSI - Self-released	0
23-Jul-90	Neah Bay, WA	NBNC	Feeding	Net Fishery	Gillnet	originally reported stranded (entangled in gillnet) on 6/26/90, but floated away b/f could be examined; subsequently discovered here on 7/23/90	NWR-fishery interaction database	Dead	1
2-Jan-91	Bodega Bay, 1 MILE NORTHWEST OF BODEGA SEA BUOY, BODEGA BAY	CA	Migratory	Other	Steel Cable	FLOATING DEAD; ANIMAL ATTACHED TO DOUBLE LOOP OF 1/2 INCH STEEL CABLE AT TAIL STALK AND CHEST,	SWR Entanglement Database	Dead	1
10-Mar-91	NEAR PLATFORM GINA, VENTURA	CA	Migratory	Net Fishery	Gillnet	ENTANGLED IN NET,	SWR Entanglement Database	SI - L10	0.75
23-Mar-91	Cleland Island, BC	NBNC	Migratory	Net Fishery	Gillnet	Gillnet, Released alive	Baird et al. 2002	NSI - Released	0
24-Mar-91	1/2 mile off Heceta Head	NBNC	Migratory	Pot Fishery	Crab Pot	swimming with pot gear on tail	NOAA NWR - Joe Scordino files	SI - L10	0.75
3-Apr-91	HAMILTON AIR FORCE BASE, 200 YARDS OFF	CA	Migratory	Ship Strike		DEAD STRANDING; 5 PROPELLER-LIKE CUTS ON RIGHT DORSAL SURFACE	SWR Ship Strike Database	Dead	1

	STATE ROUTE 300									
13-Apr-91	EAST BAY REGIONAL PARKS, POINT RICHMOND	CA	Migratory	Ship Strike			DEAD STRANDING; 6-7 FRESH PROPELLER-LIKE CUTS ON BACK	SWR Ship Strike Database	Dead	1
17-Apr-91	SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE, 0.5 MILES NORTH OF DUNBARTON BRIDGE	CA	Migratory	Ship Strike			DEAD STRANDING; POSSIBLE BOAT COLLISION	SWR Ship Strike Database	Dead	1
24-Sep-91	1 MILE NORTH OF POINT VICENTE, RANCHO PALOS VERDES	CA	Feeding	Unknown Entanglement	Unknown		TRAILING A YELLOW LINE, ENTANGLED IN 15 FEET OF ROPE,, Swimming north	SWR Entanglement Database	SI - L10	0.75
30-Dec-91	1/2 MILE OFFSHORE BODEGA HEAD, POINT REYES NS	CA	Migratory	Other	Steel Cable		FLOATING DEAD; ENTANGLED IN CABLE; CABLE LEFT CIRCUMFERENTIAL MARKS CAUDAL TO THE ANTERIOR FLUKES,	SWR Entanglement Database	Dead	1
26-Feb-92	Point Loma, 5 MILES OFFSHORE, POINT LOMA	CA	Migratory	Pot Fishery	Lobster Pot		Entangled in lobster trap line,	SWR Entanglement Database	Dead	1
5-Mar-92	Cardiff-By-The- Sea, SAN ELIJO STATE BEACH, CARDIFF-BY- THE-SEA	CA	Migratory	Pot Fishery	Lobster Pot		DEAD STRANDING; ROPE AROUND TAIL; WRAPPED AROUND DORSAL FIN AND STRETCHED ACROSS MOUTH, POSSIBLE LOBSTER TRAP,	SWR Entanglement Database	Dead	1
5-Mar-92	11 MILES OFFSHORE POINT LOMA	CA	Migratory	Pot Fishery	Lobster Pot		ENTANGLED IN LOBSTER GEAR, BELIEVE THAT ANIMAL SELF-RELEASED BECAUSE A FREE-SWIMMING ANIMAL SEEN IN THE VICINITY OF WHERE THE ENTANGLED WHALE WAS OBSERVED AND NO ENTANGLED WHALE WAS OBSERVED, Swimming	SWR Entanglement Database	NSI - Self- released	0
28-Mar-92	Santa Barbara, 1 MILE SOUTHEAST OF STEARNS WHARF, SANTA BARBARA	CA	Migratory	Net Fishery	Set Gillnet		ENTANGLED IN GILLNET AND FLOATS, DESCRIBED AS SET NET; NETTING AND KELP WRAPPED AROUND ANIMAL; BUOY MARKING ON NET BELIEVED TO HAVE BEEN SET BY 'CHARLIE' ON F/V VICTORIA. , Floundering at surface	SWR Entanglement Database	SI - L10	1
6-Feb-93	Rancho Palos Verdes, 2 MILES OFF OF POINT VICENTE, RANCHO PALOS VERDES	CA	Migratory	Pot Fishery	Lobster Pot		LOBSTER TRAP LINE WRAPPED AROUND HEAD AND THROUGH ANIMAL'S MOUTH; ANIMAL RELEASED UNHARMED; GEAR RETRIEVED, Thrashing and lunging	SWR Entanglement Database	NSI - Released	0

6-Apr-93	8 MILES OFFSHORE OCEANSIDE	CA	Migratory	Ship Strike			NAVY VESSEL COLLIDED WITH WHALE; ANIMAL SUFFERED 7" DEEP, 3" X 4" WIDE GASH ON DORSAL SURFACE FROM PROPELLERS; FOLLOWING COLLISION, ANIMAL CIRCLED BOAT TWICE, BLEEDING PROFUSELY & THEN FLOATED BELLY-UP	SWR Ship Strike Database	Dead	1
26-Jan-94	Coronado, U.S. NAVAL AMPHIBIOUS BASE, CORONADO ISLAND	CA	Migratory	Net Fishery	Gillnet		UNIDENTIFIED NET FISHERY,	SWR Entanglement Database	Dead	1
21-Mar-94	Newport Beach, OFFSHORE BALBOA PIER, NEWPORT BEACH	CA	Migratory	Unknown Entanglement	Unknown		ENTANGLED IN SET NET OR LOBSTER TRAP LINE, Difficulty swimming, Swimming north, 1 mile/hr.	SWR Entanglement Database	SI - L2	1
3-Apr-94	1/4-1/3 MILE OFFSHORE HAVEN'S NECK; 1 MILE NORTH OF FISHROCKS	CA	Migratory	Net Fishery	Gillnet		ENTANGLED IN GILLNET WITH TWO RED AND WHITE FLOATS (FOOTBAL-SHAPED) AROUND HEAD AND FLUKES, STATIONARY FOR 3 HOURS; BREATHING NORMAL; THRASHING; DIVES LASTING 15-20 SECS;	SWR Entanglement Database	SI - L10	0.75
17-Apr-94	Dare Point, BC	NBNC	Migratory	Net Fishery	Gillnet		Gillnet, Dead	Baird et al. 2002	DEAD	1
5-May-94	Port San Juan, BC	NBNC	Migratory	Net Fishery	Net Unknown		Net unknown, Dead	Baird et al. 2002	DEAD	1
14-May-94	PIER AVENUE RAMP	CA	Migratory	Ship Strike			DEAD STRANDING; PROPELLER-LIKE MARKS ON TORSO	SWR Ship Strike Database	Dead	1
11-Sep-94	CA/ OR STATE LINE	CA	Feeding	Net Fishery	Gillnet		APPEARED DEAD; ORANGE FISHING NET OVER HEAD; POSSIBLY WHOLE BODY; , NO BLOW; SUBMERGED FOR 10 MINUTES +; PRESUMED DEAD AS IT MOVED WITH CURRENT	SWR Entanglement Database	Dead	1
1995	Mexico	M	Migratory	Unknown Entanglement	Unknown		Entanglement	SC-57- ProgRepMexico	SI - L10	0.75
2-Jan-95	OFFSHORE ANACAPA ISLAND	CA	Migratory	Ship Strike			WHALE WATCH VESSEL COLLIDED WITH ADULT ANIMAL; IMMEDIATELY FOLLOWING COLLISION, ANIMAL SURFACED ASTERN OF VESSEL, SWIMMING UPSIDE DOWN WITH PECTORAL FINS VISIBLE & SWIMMING IN AN ERRATIC PATTERN; ANIMAL THEN APPEARED TO SWIM AWAY IN A NORMAL FASHION; NO B	SWR Ship Strike Database	SI - L12	0.36
6-Mar-95	Malibu, OFFSHORE ZUMA BEACH, MALIBU	CA	Migratory	Pot Fishery	Lobster Pot		LOBSTER TRAP LINE-TWO POLYPROPYLENE ROPES CUTTING INTO FLUKE; NOTED AS RELEASED	SWR Entanglement Database	SI - L2	1
7-Mar-95	2.5 MILES SOUTHWEST OF POINT LOMA	CA	Migratory	Ship Strike			RUNABOUT COLLIDED WITH ANIMAL OF UNKNOWN SIZE; ANIMAL HIT IN TAIL STOCK AREA; NO BLOOD OBSERVED IN WATER	SWR Ship Strike Database	SI - L12	0.36
10-Mar-95	Summerland, SUMMERLAND	CA	Migratory	Net Fishery	Net Unknown		DEAD STRANDING, UNKNOWN NETTING AND 2 BLACK PLASTIC BUOYS AROUND FLUKES,	SWR Entanglement Database	Dead	1

4-Apr-95	BASE OF RICHMOND-SAN RAFAEL BRIDGE	CA	Migratory	Ship Strike		DEAD STRANDING; 3 METER PROPELLER-LIKE WOUND ALONG DORSAL REGION	SWR Ship Strike Database	Dead	1
8-Apr-95	Queets	NBNC	Migratory	Pot Fishery	Crab Pot	Had 3/8" green rope through mouth and around body with red, orange, and white crab floats	NWR-strandings	Dead	1
13-Apr-95	OFFSHORE FROM ARROYO BURRO BEACH	CA	Migratory	Pot Fishery	Pot Gear	EITHER MOTHER OR CALF ENTANGLED IN POT GEAR OR TRAPLINE [if mother we would have to assume calf also impacted, for this report assuming just one independent whale]	SWR Entanglement Database	SI - L10	0.75
24-Apr-95	Grays Harbor	NBNC	Migratory	Net Fishery	Gillnet	Juvenile. Swimming with gillnet gear on head	NOAA NWR - Joe Scordino files	SI - L10	0.75
28-Apr-95	Ketchikan	SEAK	Migratory	Unknown Entanglement	Unknown	Buoy released but notes make it sound like 30' of rope still trailing? see notes & articles. Estimated to be 28 feet in length.	Alaska Regional Office	SI - L10	0.75
16-Jul-95	Neah Bay	NBNC	Feeding	Net Fishery	Set Gillnet	Whale died in set net near the green can at entrance to Neah Bay. Necropsied by Pat Gearin. Utilized by Makah Tribe.	NOAA NWR - Joe Scordino files	Dead	1
11-Sep-95	Copalis Beach, WA	NBNC	Feeding	Ship Strike		Backbone severed, no fluke present	NWR-stranding database	Dead	1
1-Apr-96	OFFSHORE 2 MILES SOUTH WEST OF CRESCENT CITY HARBOR	CA	Migratory	Pot Fishery	Dungeness Crab	MODERATELY DECOMPOSED CARCASS; ENTANGLED IN THREE CRAB POT LINES AROUND PEDUNCLE AND THREE FLOATS: YELLOW WITH RED BAND,	SWR Entanglement Database	Dead	1
2-Apr-96	5 MILES OFFSHORE BOLSA CHICA STATE BEACH, HUNTINGTON BEACH	CA	Migratory	Pot Fishery	Lobster Pot	SUSPECTED LOBSTER TRAP GEAR; 15 FEET OF LINE & BUOY WRAPPED AROUND FLUKES,	SWR Entanglement Database	SI - L10	0.75
5-Apr-96	Montecito, OFFSHORE MIRAMAR BEACH	CA	Migratory	Net Fishery	Gillnet	FLUKES WRAPPED IN GILLNET; TRAILING SEVERAL BLACK PLASTIC COR LINE FLOATS MARKED 'NECO', SOME ORANGE PLASTIC FLOATS LABELED 'VILLY, JAPAN' ON ONE END 'BUENE' AND ON THE OTHER A FOAM BUOY WITH A WHITE PVC PIPE POLE ABOUT SIX FEET HIGH THAT FORMED A SPAR BUOY. THE NET WAS PINK PLASTIC MONOFILAMENT, 3 3/4 INCH SQUARE; HUNG WITH 5/16 INCH YELLOW POLYPROPYLENE LINE AND A BLUE TRACER WITH SMALL LEAD WEIGHTS ALONG THE LEAD LINE; A GRAPNEL ANCHOR, CONSISTING OF 5 BARBED TINES MADE OF 1/2 STEEL REBAR, THREE FT SHANK, AND ADDITIONAL TINES ON THE END; PHOTOS INCLUDED; ENTANGLEMENT REMOVED	SWR Entanglement Database	NSI - Released	0
27-Apr-96	Santa Barbara, 2 MILES OFFSHORE	CA	Migratory	Net Fishery	Gillnet	DEAD CALF AND DEAD ADULT FEMALE ENTANGLED IN THE LINES OF 2 SEPARATE GILLNETS, STRONGLY TEATHERED TO THE OCEAN FLOOR BY GILLNETS AND LINE AROUND TAIL STOCKS	SWR Entanglement Database	Dead	1
27-Apr-96	Santa Barbara, 2 MILES OFFSHORE	CA	Migratory	Net Fishery	Gillnet	DEAD ADULT FEMALE AND DEAD CALF ENTANGLED IN THE LINES OF 2 SEPARATE GILLNETS; BOTH ANIMALS ; ONLY IN ACCESS DATABASE: COW/CALF PAIR ENTANGLED IN LINES ASSOCIATED WITH TWO GILL	SWR Entanglement Database	Dead	1

						NETS; FOUR FLOATS ASSOCIATED WITH LINES WHICH EXTENDED FOR MORE THAN 80 FEET & PRESUMABLY WERE ATTACHED TO NET WHICH WAS TETHERED TO SEA FLOOR; POLYPROPELENE LINES WRAPPED AROUND TAIL STOCKS; CARCASSES FIRST SIGHTED ON 4/27/96 TWO MILES OFFSHORE SUMMERLAND, 1.5 MILES SOUTH OF OIL PLATFORM HAZEL, STRONGLY TEATHERED TO THE OCEAN FLOOR BY GILLNETS AND LINE AROUND TAIL STOCKS			
2-May-96	Eureka, ARCHELETA BAY, EUREKA	NBNC	Migratory	Pot Fishery	Dungeness Crab	ENTANGLED IN POLYPROPYLENE CRAB POT LINE, Stationary, but swam away after release	SWR Entanglement Database	NSI - Released	0
16-May-96	Suttu, Hokkaido 42 45'N, 140 10'E	EJPJ	Migratory	Unknown Entanglement	Unknown		Kato et al. 2016	Dead	1
13-Jul-96	Neah Bay, WA	NBNC	Feeding	Net Fishery	Gillnet	Makah Tribe, NOAA, and USCG worked together to free whale within 3 hours of when reported entangled.	Statesman Journal (Salem), 15 July 1996	NSI - Released	0
16-Mar-97	20 MILES SOUTH OF US BORDER	M	Migratory	Pot Fishery	Lobster Pot	ENTANGLED IN LOBSTER TRAP GEAR,	SWR Entanglement Database	SI - L10	0.75
26-Mar-97	Santa Barbara, OFFSHORE FROM EL CAPITAN STATE PARK	CA	Migratory	Net Fishery	Set Gillnet	TRAILING 50 FEET OF GILLNET AND BUOY, DESCRIBED AS SET NET, Swimming	SWR Entanglement Database	SI - L10	0.75
7-Apr-97	Goleta, 1 MILE OFFSHORE GOLETA PIER, OFFSHORE	CA	Migratory	Net Fishery	Gillnet	Gillnet wrapped around flukes,	SWR Entanglement Database	SI - L10	0.75
14-Apr-97	FROM PATRICK'S POINT, TRINIDAD	NBNC	Migratory	Pot Fishery	Dungeness Crab	TOWING CRAB POT GEAR, Swimming	SWR Entanglement Database	SI - L10	0.75
14-Apr-97	Grayland, WA	NBNC	Migratory	Ship Strike		Large slice on posterior part of the animal, about 2 ft. deep, also old rake marks	NWR-stranding database	Dead	1
9-May-97	SANTA BARBARA CHANNEL, ANACAPA ISLAND	CA	Migratory	Net Fishery	Gillnet	4 INCH DEEP ALL-AROUND WOUND ON FLUKE FROM MONOFILAMENT GILLNET WITH POLYPROPYLENE LINE AND SMALL BLACK FLOATS; TIP OF FLUKE ALSO DAMAGED; PHOTOS ON FILE,	SWR Entanglement Database	SI - L2	1
20-May-97	Kah Shakes Cove	SEAK	Migratory	Ship Strike		Whale large gash on head consistent with a ship strike. Photos reviewed and confirmed by Sally Mizroch. Estimated to be 36 feet.	Alaska Regional Office	DEAD	1
24-May-97	VANDENBERG AIR FORCE BASE	CA	Migratory	Net Fishery	Set Gillnet	DEAD STRANDING; ENTANGLED IN MONFILAMENT GILLNET; DESCRIBED AS SET NET,	SWR Entanglement Database	Dead	1
19-Nov-97	Pt. Loma, CA	CA	Feeding	Net Fishery	Gillnet	Alive. Caught in drift shark net, reported by C. Oliver, SWFC	Heyning and Lewis, 1990	SI - L10	0.75
2-Jan-98	SAN PEDRO	CA	Migratory	Ship Strike		COAST GUARD VESSEL COLLIDED WITH ANIMAL, LEAVING 6 ONE FOOT GASHES IN THE ANIMAL'S SIDE; ANIMAL SURFACED SEVERAL TIMES BEFORE SWIMMING	SWR Ship Strike Database	SI - L11	0.56

						AWAY; NO BLOOD OBSERVED IN WATER; FINAL STATUS OF ANIMAL UNKNOWN			
7-Jan-98	ELK CREEK	NBNC	Migratory	Ship Strike		DEAD STRANDING; NEWBORN CALF; UMBILICUS PRESENT; ANIMAL FIRST SIGHTED ALIVE AT 1530 ON 1/5/98 SWIMMING IN CRESCENT CITY HARBOR, BLEEDING PROFUSELY FROM A PROPELLER-LIKE VERTICAL SLASH IN CAUDAL PEDUNCLE; CAUDAL PEDUNCLE NEARLY SEVERED; ANIMAL DISAPPEARED	SWR Ship Strike Database	SI - L5A	1
22-Jan-98	35 MILES WEST OF SAN DIEGO	CA	Migratory	Net Fishery	Gillnet	NMFS OBSERVER RECORD: INTERACTION WITH DRIFT GILLNET, SWAM AWAY, Swam away after entanglement removed	SWR Entanglement Database	NSI - Released	0
21-Feb-98	Live Oak, CA	CA	Migratory	Pot Fishery	Pot Gear	Whale was apparently tangled in pot gear. Washed in dead. May have had lines cut off when it was first on the beach to allow it to drift back to sea.	Santa Cruz Sentinel 25 Feb 1998	Dead	1
28-Feb-98	BETWEEN SAN PEDRO AND CATALINA ISLAND	CA	Migratory	Net Fishery	Gillnet	ANIMAL ENTANGLED IN YELLOW LINE AND NETTING, Prop cuts from pectoral fins to dorsal hump, depth of cuts would be fatal [length from Douglas et al. 2008]	SWR Entanglement Database	SI - L10	0.75
17-Mar-98	Grays Harbor, WA	NBNC	Migratory	Ship Strike			NWR-stranding database	Dead	1
18-Mar-98	San Pedro, OFF POINT FERMIN, SAN PEDRO; 6.5 MILES OFF ANGELS GATE	CA	Migratory	Net Fishery	Gillnet	NET WRAPPED AROUND FLUKES; POSSIBLE LOBSTER GEAR; CREW CUT WHALE FROM GEAR, BUT AT LEAST 40 FT OF ROPE STILL ATTACHED AROUND CAUDAL PEDUNCLE,	SWR Entanglement Database	SI - L10	0.75
24-Apr-98	OFFSHORE POINT LOMA	CA	Migratory	Ship Strike		NAVY VESSEL SIGHTED A WHALE SPOUTING OFF PORT BEAM AT 2000 YARDS AT 1200; 10 MINUTES LATER SHIP FELT SHUDDER, SLOWED TO 5 KNOTS, & DISCOVERED WHALE WRAPPED AROUND BOW; CARCASS DISLODGED FROM BOW & SANK	SWR Ship Strike Database	SI - L6A	1
24-Apr-98	OFFSHORE POINT LOMA	CA	Migratory	Ship Strike		NAVY VESSEL SIGHTED WHALES OFF BEAM AT 1 NAUTICAL MILE AT 0600; WHALE DISCOVERED WRAPPED AROUND BOW AT 0735; THERE WERE NO SIGHTINGS OF WHALES IN THE VICINITY OF THE VESSEL & NO INDICATION THAT THE VESSEL HAD HIT A WHALE; CARCASS DISLODGED FROM BOW & S	SWR Ship Strike Database	Dead	1
30-Apr-98	STINSON BEACH	CA	Migratory	Ship Strike		DEAD STRANDING; MASSIVE HEMORRHAGE IN THORACIC CAVITY; SUBCUTANEOUS HEMORRHAGE JUST CAUDAL TO BLOWHOLE EXTENDING TO LEFT PECTORAL FIN	SWR Ship Strike Database	Dead	1
6-May-98	Yakutat	SEAK	Migratory	Entanglement	Unknown	entangled, reported as human interaction	Alaska Regional Office	DEAD	1
8-Jun-98	Nome	FN	Feeding	Entanglement	Unknown	Initial report of whale trailing net and 2 buoys-reportedly subsistence was not confirmed; whale not seen again.	Alaska Regional Office	SI - L10	0.75
18-Jun-98	Kodiak City	K	Feeding	Entanglement	Unknown	Gear/line appears to be around tail stock and floating off posterior end of floating dead whale with 20 buoys in the gear. Kate Wynn thinks whale may have drifted into the gear while dead based on review of aerial photographs. No exam of whale.	Alaska Regional Office	DEAD	1

8-Jul-98	Wreck Creek, WA	NBNC	Feeding	Net Fishery	Net Unknown	heavily preyed upon; net wrapped around flukes (dug in deeply); skin & blubber samples taken	NWR-fishery interaction database	Dead	1
23-Oct-98	San Pedro, LOS ANGELES HARBOR ENTRANCE, SAN PEDRO	CA	Feeding	Pot Fishery	Pot Gear	BUOY LINE LOOPED IN MOUTH LIKE A BRIDAL AND ABOUT 100 FEET OF LINE TRAILING; BUOY WAS STILL ATTACHED TO A LINE THAT WENT THROUGH THE WHALE'S MOUTH,	SWR Entanglement Database	SI - L10	0.75
30-Nov-98	San Diego, 1.5 MILES WEST OF MISSION BAY JETT,Y SAN DIEGO	CA	Feeding	Pot Fishery	Lobster Pot	LACERATIONS ON HEAD, PEDUNCLE & FLUKES, 150 FEET OF 3/8 INCH NYLON ROPE AND A 1/2 INCH LOBSTER TRAP LINE; WHALE WAS BOUND SO TIGHTLY BETWEEN HEAD AND PEDUNCLE THAT WHALE COULD NOT COMPLETELY STRAIGHTEN OUT; , WHALE COULD BARELY KEEP BLOWHOLE ABOVE THE SURFACE, could not straighten from the entanglement; swam away post-release	SWR Entanglement Database	NSI - Released	0
1999	British Columbia	NBNC		Other	Aquaculture Entanglement	Whale was entangled in an aquaculture net pen.	Rugh et al. 1999	SI - L10	0.75
11-Jan-99	40 MILES WEST OF SAN DIEGO	CA	Migratory	Net Fishery	Gillnet	NMFS OBSERVER RECORD: CAUGHT IN UPPER SECTION OF DRIFT GILLNET NEAR FLOAT LINE,	SWR Entanglement Database	Dead	1
23-Jan-99	OFFSHORE NORTH CORONADO ISLAND; 4 MILES FROM WEST END	CA	Migratory	Ship Strike		WHALE SURFACED WITHIN THREE FEET OF OCEAN RACING YACHT'S STARBOARD SIDE; Yacht was 11 m of length traveling 6 knots; FOLLOWING IMPACT, WHALE ROLLED UNDER BOW & STRUCK KEEL, RENEDEING VESSEL DEAD IN WATER; WHALE THEN ROLLED UNDER VESSEL & SURFACED ON PORT SIDE; NO BLOOD OBSERVED; ANIMAL APPEARED ST	SWR Ship Strike Database	SI - L12	0.36
4-Mar-99	Rancho Palos Verdes	CA	Migratory	Net Fishery	Gillnet	NET MATERIAL WRAPPED AROUND FLUKES, Moving slowly	SWR Entanglement Database	SI - L10	0.75
14-Mar-99	Rancho Palos Verdes	CA	Migratory	Net Fishery	Gillnet	PINK GILLNET WRAPPED AROUND FLUKES WITH 2 FLOATS ATTACHED,	SWR Entanglement Database	SI - L10	0.75
15-May-99	Bodelteh Island	NBNC	Migratory	Ship Strike		Whaling protest boat was circling the Makah whaling canoe during the hunt at >15 knots likely to try to disrupt hunt with wake. A whale surfaced in front of the boat and the boat skipped up over a wave and landed down on the back of the whale just behind the blowhole. The boat, I think called the Silver Bullet, was a jet drive boat driven by a Jonathan something. The boat was seized by USCG for negligent driving. The whale stayed at the surface for >15 minutes without showing much of any movement. The whale then slowly swam away and was not tracked further.	Author JJS personal observation	SI - L6B	0.2
15-May-99	Bodelteh Island	NBNC	Migratory	Ship Strike		Makah whaling canoe was closing on a whale to harpoon and a small vessel, <17 foot with tiller style engine, accelerated in to block the whalers. The boats front end was lifted by the whale's tail as it sounded to dive. The vessel was seized by USCG for negligent driving and for violating the Regulatory Navigation Area to protect Makah whalers from protestors.	Author JJS personal observation	NSI - L6C	0

24-Jun-99	Port Hueneme, 10 MILES OFFSHORE, PORT HUENEME	CA	Feeding	Pot Fishery	Pot Gear	CARCASS; FLOATING OFFSHORE WITH POT GEAR WITH TWO FLOATS,	SWR Entanglement Database	Dead	1
14-Jul-99	Port Garavina	FN	Feeding	Unknown Entanglement	Unknown	entangled, reported as human interaction, estimated to be 25 feet	Alaska Regional Office	DEAD	1
15-Jul-99	Grayland, WA	NBNC	Feeding	Pot Fishery	Dungeness Crab	Had rope through the mouth and was reported to have a 30' rope and apparent crab buoy attached that were cut away before CRC arrived.	NWR-strandings	Dead	1
5-Aug-99	Crescent City, 2 MILES FROM CRESCENT CITY HARBOR	NBNC	Feeding	Pot Fishery	Dungeness Crab	Cut by line tail & mouth shallow abrasions due to 3/4 crab line chaffing; animal around tail and through mouth.,	SWR Entanglement Database	NSI - Released	0
7-Aug-99	Crescent City, CRESCENT CITY	NBNC	Feeding	Pot Fishery	Spot Prawn	PRAWN POT LINES TETHERED TO FLUKE; ANIMAL STATIONARY, Animal stationary; swam away after release	SWR Entanglement Database	NSI - Released	0
16-Aug-99	Bristol Bay	FN	Feeding	Unknown Entanglement	Unknown	entangled, reported as human interaction	Alaska Regional Office	DEAD	1
19-Dec-99	MUIR BEACH, GOLDEN GATE NATIONAL RECREATION AREA	CA	Migratory	Ship Strike		DEAD STRANDING; CARCASS FIRST OBSERVED ON 12/18/99 FLOATING UNDER GOLDEN GATE BRIDGE; 60 CENTIMETER X 50 CENTIMETER X 50 CENTIMETER HEMORRHAGE CAUDAL TO TEMPORAL MANDIBULAR JOINT AT ANGLE OF JAW	SWR Ship Strike Database	Dead	1
2000	Mexico	M	Migratory	Unknown Entanglement	Unknown	Entanglement	SC-57- ProgRepMexico	SI - L10	0.75
1-Feb-00	SAN DIEGO BAY	CA	Migratory	Pot Fishery	Lobster Pot	BUOY LINE AROUND ANIMAL (LOBSTER TRAP SUSPECTED), Coming to the surface	SWR Entanglement Database	SI - L10	0.75
16-Mar-00	San Clemente, SAN CLEMENTE PIER AREA, SAN CLEMENTE	CA	Migratory	Unknown Entanglement	Unknown	YELLOW POLYPROPYLENE LINE FROM FLUKES, ANIMAL SWIMMING SLOWLY AT SURFACE	SWR Entanglement Database	SI - L10	0.75
27-Mar-00	Point Dume, POINT DUME, MALIBU	CA	Migratory	Pot Fishery	Pot Gear	TOWING 2 BUOYS & LINE, ANIMAL SWIMMING SLOWLY AT SURFACE	SWR Entanglement Database	SI - L10	0.75
30-Mar-00	Long Beach, 0.5 MILES SOUTH OF LONG BEACH BREAKWATER	CA	Migratory	Net Fishery	Set Gillnet	STRANDING, WHITE SEABASS GILLNET WRAPPED AROUND FLUKES,	SWR Entanglement Database	Dead	1
4-Apr-00	VANDENBERG AIRFORCE BASE	CA	Migratory	Pot Fishery	Rock Crab	TWO POLYPROPYLENE LINES WRAPPED AROUND CAUDAL PEDUNCLE; 10 FEET OF BLuish-GREEN LINE WRAPPED 7-8 TIMES AROUND PEDUNCLE; YELLOW LINE WRAPPED 2-3 TIMES AROUND PEDUNCLE, LEADING TO 3 X3 FOOT FLATTENED LOBSTER TRAP WITH TAG' LATER IDENTIFIED GEAR AS ROCK CRAB; PHOTOS INCLUDED,	SWR Entanglement Database	Dead	1
10-Jun-00	Aptos, OFFSHORE APTOS, APTOS	CA	Feeding	Unknown Entanglement	Unknown	UNIDENTIFIED FISHING GEAR AND FLOATS WRAPPED AROUND RIGHT PECTORAL FLIPPER,	SWR Entanglement Database	SI - L10	0.75
9-Jan-01	3 MILES OFFSHORE	CA	Migratory	Ship Strike		CABLE LAYING VESSEL COLLIDED WITH WHALE; ANIMAL FIRST SIGHTED THRASHING AT SURFACE AT 1005;	SWR Ship Strike Database	SI - L5A	1

	MONTANA DE ORO STATE PARK						MAJOR INJURY TO CAUDAL PEDUNCLE, FLUKES COMPLETELY SEVERED; ANIMAL BLEEDING; LAST SIGHTING OCCURRED AT 1050; FINAL STATUS OF ANIMAL UNKNOWN			
28-Jul-01	10 miles off Del Mar, CA	CA	Feeding	Ship Strike			Frigate USS Jarrett collided with whale 10 miles off Del Mar; 445 foot vessel traveling 21 mph (ship size and speed from Santa Cruz Sentinel 24 Aug 2001)	LA Times 17 Aug 2001	SI - L6A	1
15-Aug-01	80 miles from Oceanside, CA	CA	Feeding	Ship Strike			505 foot Navy vessel struck whale, reported as gray whale, while traveling 15 knots	LA Times 17 Aug 2001	SI - L6A	1
24-Apr-02	Coal Point, WEST OF COAL POINT, ISLA VISTA, SANTA BARBARA	CA	Migratory	Unknown Entanglement	Unknown		POLYPROPYLENE LINE WRAPPED AROUND TORSO, Swimming	SWR Entanglement Database	SI - L10	0.75
14-May-02	Rancho Palos Verdes, OFFSHORE FROM POINT VICENTE, RANCHO PALOS VERDES	CA	Migratory	Unknown Entanglement	Unknown		YELLOW ROPE AROUND PEDUNCLE, Swimming	SWR Entanglement Database	SI - L10	0.75
3-Aug-02	Ocean Shores, WA	NBNC	Feeding	Net Fishery	Net Unknown		yellow fishing gear (lines & net) wrapped around peduncle	NWR-strandings	Dead	1
2003	Mexico	M	Migratory	Unknown Entanglement	Unknown		Entanglement	SC-57- ProgRepMexico	SI - L10	0.75
31-Jan-03	Morro Bay, OFFSHORE MORRO BAY	CA	Migratory	Pot Fishery	Dungeness Crab		CDFW DUNGENESS CRAB POT STUCK IN MOUTH; 75 FEET OF YELLOW 3/8 INCH POLYPROPYLENE LINE & TWO BUOYS TRAILING FROM RIGHT SIDE; CRAB POT 24"X10" DIAMETER PAINTED GREEN ON TOP, WHITE ON THE BOTTOM; 18"X6" DIAMETER ALL WHITE, ANIMAL WAS SWIMMING AND DIVING BUT APPEARED BOTHERED BY NEARBY BOATS	SWR Entanglement Database	SI - L10	0.75
19-Feb-03	CORONADO	CA	Migratory	Unknown Entanglement	Unknown		YELLOW NYLON LINE LODGED IN BALEEN; NAVY TOWED ANIMAL OUT TO SEA BUT RESTRAINED TWO DAYS; FARTHER SOUTH AT SILVER STRAND STATE BEACH ON 2/21/2003; WAS MISSING MAJORITY OF ITS SKIN	SWR CA 1988-2007 datasheet	Dead	1
25-Mar-03	San Mateo Pt, 2.5 MILES OFF SAN MATEO POINT	CA	Migratory	Pot Fishery	Dungeness Crab		150 FEET OF CRAB POT LINE WRAPPED AROUND HEAD, TORSO, & FLUKES, Swam away after entanglement removed	SWR Entanglement Database	NSI - Released	0
18-Apr-03	LANDS END, AT 48TH STREET	CA	Migratory	Ship Strike			DEAD STRANDING; 2 PROPELLER-LIKE SLASHES THROUGH BONE & BALEEN ON RIGHT SIDE OF ROSTRUM; BROKEN ROSTRUM	SWR Ship Strike Database	Dead	1
20-Apr-03	Cape Lookout, OR	NBNC	Migratory	Pot Fishery	Dungeness Crab		crab pot line and buoy wrapped around flukes and caudal peduncle, crab pot buoy #219 registered by ODFW. Exam conducted by Tamara McGuire on 4/21/03.	NWR-strandings	Dead	1
18-May-03	Clinton, WA	PS	Migratory	Pot Fishery	Crab Pot		rope wrapped though it's mouth and around its' head. Scientists freed the animal.	NWR-other sources	NSI - Released	0
10-Jul-03	Ocean City, WA	NBNC	Feeding	Unknown Entanglement	Unknown		passerby saw rope tangled around tail; rope now tangled through mouth with 2 holes on underside of jaw (may have been towed)	NWR-strandings	Dead	1

17-Jan-04	La Jolla, OFFSHORE PT. LA JOLLA	CA	Migratory	Pot Fishery	Lobster Pot	ANIMAL TOWING TRAP GEAR (LOBSTER SUSPECTED), Free swimming animal	SWR Entanglement Database	SI - L10	0.75
18-Jan-04	Driftwood Beach State Park, OR	NBNC	Migratory	Unknown Entanglement	Unknown	Rope marks found around both pecs and through the mouth	NWR-strandings	Dead	1
24-Mar-04	Half Moon Bay, 1 MILE OFFSHORE PILLAR POINT HARBOR, HALF MOON BAY	CA	Migratory	Pot Fishery	Pot Gear	POT GEAR (ROPE AND BUOY) THROUGH MOUTH, "WHITE ROPE FRAGMENT",	SWR Entanglement Database	SI - L10	0.75
12-Apr-04	Tillamook, OR	NBNC	Migratory	Pot Fishery	Crab pot	Entangled in crab pot; disentangled	NWR-strandings	NSI - Released	0
20-May-04	Cape Elizabeth, WA	NBNC	Migratory	Pot Fishery	Crab Pot	seen in water anchored to crab gear; tied around caudal peduncle; could not tell if entangled live or tied off dead	NWR-strandings	Dead	1
29-May-04	Ocean City, WA	NBNC	Migratory	Pot Fishery	Crab Pot	Whale severely entangled in crab gear	NWR-other sources	SI - L10	0.75
15-Jun-04	Kotzebue	FN	Feeding	Net Fishery	Net Unknown	Mahoney via Beckman/Frost (ADFG): could not be disentangled from beluga net [belonging to a Native; unclear: subsistence net or commercial fisher who happens to be Native], so it was harvested for subsistence, however, it was found to be sick and covered with "boils" so it was not consumed. Whale estimated 29 feet	Alaska Regional Office	DEAD	1
2-Jul-04	Pt. Adolphus	SEAK	Feeding	Unknown Entanglement	Unknown	Entangled in 3-strand 3/8"poly. Original observers (whale watchers) cut line. Responders were unable to relocate whale via aerial or water searches to assess or attempt disentanglement.	Alaska Regional Office	SI - L10	0.75
13-Aug-04	Pt Loma, 8/13/2004 - OFFSHORE PT. LOMA	CA	Feeding	Net Fishery	Set Gillnet	ENTANGLED IN MORASS OF NETTING, PVC PIPE, & 1 RED BALL-SHAPED BUOY; ENTANGLED,	SWR Entanglement Database	SI - L10	0.75
1-Jan-05	SOUTHWEST OF SAN CLEMENTE ISLAND	CA	Migratory	Net Fishery	Gillnet	NMFS OBSERVER RECORD: ENTANGLED IN DRIFT GILLNET, UPPER LEFT CORNER OF NETTING,	SWR Entanglement Database	SI - L10	0.75
21-Feb-05	Depoe Bay, OR	NBNC	Migratory	Pot Fishery	Dungeness Crab	Crab pot buoys and line around tail stock. Animal was disentangled by OSU AND USCG. Two buoys and trailing rope removed, one buoy either still on the whale or at sea (whale not seen again). animal disentangled by OSU and US Coast Guard. No evidence of crab pot, buoy number 13558, bright pink, not in ODFW registry of crab pots for commercial crabbers in Oregon, sent to WA to see if it was registered there.	NWR-strandings	SI - L10	0.75
26-Feb-05	Long Beach, 4 MILES SOUTHEAST OF L.A. LIGHT, LONG BEACH	CA	Migratory	Net Fishery	Gillnet	POLYPROPYLENE LINE & BLUE/GREEN MONOFILAMENT NETTING WITH BLACK BUOYS AND BLACK LINE WRAPPED AROUND FLUKES, Swimming	SWR Entanglement Database	SI - L10	0.75
19-Apr-05	Whidbey Island, WA	PS	Migratory	Ship Strike		Hemorrhage and oedema noted within the throat region. [Length from Douglas et al. 2008]	NWR-stranding database	Dead	1
26-Apr-05	Grayland, WA	NBNC	Migratory	Unknown Entanglement	Unknown	Entanglement lines on head [NWR-other sources report that whale was swimming with entanglement and subsequently died]	NWR-strandings	Dead	1

11-May-05	Tomiyama (Tokyo Bay), Chiba 35 04'N, 139 46'E	EJPJ	Migratory	Net Fishery	Salmon Trap Net		Kato et al. 2016	Dead	1
6-Jul-05	Horsefall Beach, OR	NBNC	Feeding	Unknown Entanglement	Unknown	Fishing line wrapped through mouth, along side and wrapped around peduncle; buoys initially reported attached to line, but were cut away before the animal could be examined.	NWR-strandings	Dead	1
15-Jul-05	Enoshima, Onagawa Miyagi 38 23'N, 141 54'E	EJPJ	Feeding	Net Fishery	Salmon Trap Net		Kato et al. 2016	Dead	1
15-Jul-05	Enoshima, Onagawa Miyagi 38 23'N, 141 54'E	EJPJ	Feeding	Net Fishery	Salmon Trap Net		Kato et al. 2016	Dead	1
25-Aug-05	Cape Flattery, WA @48-08N,125-21W	NBNC	Feeding	Hook and line	Salmon Troll	Whale caught in small cables used for salmon fishing, was entangled for ~20min, then freed itself.	NWR-other sources	NSI - Self-released	0
8-Dec-05	Marrowstone Island, WA	PS	Migratory	Ship Strike		Large gash on right side caudal peduncle [length from Douglas et al. 2008]	NWR-stranding database	Dead	1
1-Feb-06	1 MILE OFFSHORE LEADBETTER BEACH	CA	Migratory	Ship Strike		FREE-SWIMMING WHALE BREACHED ADJACENT TO CABIN CRUISER & CRASHED DOWN ON VESSEL'S WINDSHIELD, vessel was 8 meters in length and traveling 2.9 knots, EMBEDDING PIECES OF SKIN & BARNACLES IN GLASS; ANIMAL SWAM AWAY; NO BLOOD OBSERVED IN WATER; FINAL STATUS OF ANIMAL UNKNOWN;	SWR Ship Strike Database	SI - L12	0.36
10-Feb-06	CABRILLO BEACH	CA	Migratory	Ship Strike		DEAD STRANDING; RIGHT SIDE OF BODY WAS PARTIALLY DETACHED JUST BEHIND THE SKULL; OCCIPITAL REGION OF SKULL BROKEN	SWR Ship Strike Database	Dead	1
17-Mar-06	Mexico	M	Migratory	Unknown Entanglement	Unknown	Gear unknown, observed through anecdotal observation	SC-59- ProgRepMexico	SI - L10	0.75
24-Mar-06	SAN DIEGO BAY, BETWEEN SHELTER ISLAND & HARBOR ISLAND	CA	Migratory	Ship Strike		5.4 m PLEASURE CRAFT COLLIDED WITH FREE-SWIMMING WHALE; BLOOD OBSERVED IN WATER; FINAL STATUS UNKNOWN	SWR Ship Strike Database	SI - L6B	0.2
20-Apr-06	SAN FRANCISCO BAY, NEAR ALCATRAZ ISLAND	CA	Migratory	Ship Strike		FLOATING CARCASS; PROPELLER-LIKE WOUNDS ON BODY	SWR Ship Strike Database	Dead	1
23-Apr-06	Cape Lookout	NBNC	Migratory	Net Fishery	Net Unknown	Hikers noticed entangled whale close to shore, was behind two other larger whales; whale had netting over snout and long line (8-10 times its body length) and 2 bright orange floats; also noted mile long length of net at sea with similar floats.	NWR-strandings	SI - L10	0.75
27-Apr-06	San Pedro,	CA	Migratory	Unknown Entanglement	Unknown	30 FEET OF YELLOW ROPE TIED AROUND FLUKES,	SWR Entanglement Database	SI - L10	0.75
14-May-06	Lakeside	NBNC	Migratory	Pot Fishery	Dungeness Crab	live entangled gray whale calf with crab pot and gear wrapped around tail stock and mouth, died on it's own on 5/15	NWR-strandings	Dead	1
29-May-06	Grays Harbor, WA	NBNC	Migratory	Pot Fishery	Dungeness Crab	Entangled in crab pot. Rope wrapped around fluke, tailstock, mid-body and through baleen. Rope scarring on head and left side	NWR-strandings	Dead	1

						(right side unseen). Crab pots being held as evidence by Quinault police.			
14-Jan-07	LINCOLN	NBNC	Migratory	Net fishery	Gillnet	WHALE NEAR NEWPORT REPORTEDLY DISENTANGLED BY FISHERMAN. GEAR AMOUNT AND CONFIGURATION UNKNOWN. NOT KNOWN IF ALL GEAR WAS REMOVED. FINAL OUTCOME UNKNOWN.	Carretta et al. 2022	SI - L10	0.75
18-Jan-07	Sanriku, Ofunato, Iwate 39 09'N, 141 54'E	EJPJ	Migratory	Net Fishery	Salmon Trap Net		Kato et al. 2016	Dead	1
18-Feb-07	Laguna San Ignacio	M	Breeding	Pot fishery	Pot Gear (Lobster)	line and buoy in the mouth	PRIMMA	SI - L10	0.75
2-Apr-07	LOS ANGELES	CA	Migratory	Net Fishery	Gillnet	FREE-SWIMMING ANIMAL TOWING 3-5 FEET OF SMALL MESH BLUE/GREEN MONOFILAMENT NETTING FROM AROUND TAIL STOCK; RESCUE EFFORT INITIATED; MOST OF NETTING CUT AWAY, SMALL AMOUNT OF LOOSE NETTING REMAINING AROUND TAIL STOCK; FINAL STATUS UNKNOWN	Carretta et al. 2013	NSI - Released	0
20-Apr-07	LINCOLN	NBNC	Migratory	Pot Fishery	Dungeness Crab	ENTANGLED IN CRAB GEAR. SKIPPER OF NEARBY VESSEL REMOVED 8 POTS BEFORE HE HAD TO RETURN TO PORT DUE TO DARKNESS. WHALE STILL HAD 8 BUOYS AND SEVERAL WRAPS OF LINE AROUND MID-SECTION, LEFT PECTORAL FLIPPER, AND THROUGH MOUTH. NO FURTHER DISENTANGLEMENT ATTEMPTS.	Carretta et al. 2013	SI - L2	1
1-Jun-07	MARIN	CA	Feeding	Ship Strike		CARCASS; 4 PROPELLER-LIKE WOUNDS TO BODY	Carretta et al. 2013	DEAD	1
27-Jun-07	2 MILES OFFSHORE SALINAS RIVER MOUTH	CA	Feeding	Pot Fishery	Pot Gear	ANIMAL TOWING TWO BUOYS (1 RED AND 1 YELLOW) FROM FLUKES, SWIMMING 50-75 YARDS OFFSHORE, SLOWLY NORTH.	SWR Entanglement Database	SI - L10	0.75
26-Jul-07	KING	PS	Migratory	Net Fishery	Gillnet	SOME GEAR WAS REMOVED FROM THE ANIMAL, SWAM AWAY WITH GEAR STILL ATTACHED. ANIMAL WAS NOT SIGHTED AGAIN TO REMOVE MORE GEAR.	Carretta et al. 2013	SI - L10	0.75
7-Dec-07	OFFSHORE BERING SEA	FN	Migratory	Pot Fishery	Red King Crab	WHALE WAS SIGHTED IN HUMBOLDT BAY TRAILING GEAR ON APRIL 12, 2008, APPX. 4 MONTHS AFTER BECOMING ENTANGLED IN THE GEAR IN DECEMBER IN THE BERING SEA. THE ANIMAL WAS TRAILING 40-50 FEET OF LINE WITH THREE BUOYS ATTACHED. BUOYS WERE REMOVED BUT APPROX. 20-30' OF LINE REMAIN ATTACHED TO THE WHALE. THE WHALE APPEARED SEVERLY UNDERWEIGHT AND HAS AN S-SHAPED SPINE.	Carretta et al. 2013	SI - L2	1
7-Feb-08	ORANGE	CA	Migratory	Ship Strike		CARCASS; PROPELLER-LIKE WOUNDS TO LEFT DORSUM FROM MID-BODY TO CAUDAL PEDUNCLE; DEEP EXTERNAL BRUISING ON RIGHT SIDE OF HEAD; FIELD NECROPSY REVEALED MULTIPLE CRANIAL FRACTURES.	Carretta et al. 2013	DEAD	1
1-Mar-08	MEXICO	M	Migratory	Ship Strike		CARCASS BROUGHT INTO PORT ON BOW OF CRUISE SHIP; COLLISION OCCURRED BETWEEN PORTS OF SAN DIEGO & CABO SAN LUCAS BETWEEN 5:00 P.M. ON 2/28 & 7:20 A.M. ON 3/1	Carretta et al. 2013	DEAD	1
12-Apr-08	HUMBOLDT	NBNC	Migratory	Pot fishery	Alaska Bering Sea crab pot	STATIONARY WHALE 20 FT. IN LENGTH DESCRIBED AS 'SEVERELY MALNOURISHED' ENTANGLED IN GEAR. LINE	Carretta et al. 2022	SI - L10	1

						AND THREE BUOYS EXTENDED 40 TO 50 FT BEHIND WHALE (=TRAILING GEAR). AMOUNT AND CONFIGURATION OF GEAR UNKNOWN. WHALE'S SPINE NOTED AS DISTORTED AND S-SHAPED. HEALTH DECLINE. FISHERY CONFIRMED VIA TAG NUMBER AND INTERVIEW WITH FISHERMAN. GEAR HAD BEEN SET IN BERING SEA BETWEEN OCTOBER AND DECEMBER 2007.			
27-Aug-08	NOOTKA	NBNC	Feeding	Unknown Entanglement	Unknown	FREE SWIMMING ANIMAL HAD TAIL STOCK WRAP AND TRAILING ROPE (DO NOT HAVE PICTURES), NOT SURE IF THIS IS THE SAME ANIMAL FROM MAY 17, 2009)	Paul Cottrell, DFO	SI - L2	1
15-Oct-08	TOFINO	NBNC	Feeding	Ship Strike		CARCASS HAD PROPELLER LACERATION DORSAL SIDE	Paul Cottrell, DFO	DEAD	1
31-Jan-09	SAN DIEGO	CA	Migratory	Pot Fishery	Lobster Pot	FREE-SWIMMING ANIMAL TOWING UNIDENTIFIED POT/TRAP GEAR; USCG REPORTED GEAR AS 4 LOBSTER POTS; FINAL STATUS UNKNOWN.	Carretta et al. 2013	SI - L10	0.75
25-Mar-09	ORANGE	CA	Migratory	Net Fishery	Gillnet	FREE-SWIMMING ANIMAL WITH PINK GILLNET WRAPPED AROUND HEAD, TRAILING 4 FEET OF VISIBLE NETTING; REPORT RECEIVED VIA NATURALIST ON LOCAL WHALEWATCH VESSEL; NO RESCUE EFFORT INITIATED; FINAL STATUS UNKNOWN.	Carretta et al. 2013	SI - L10	0.75
4-Apr-09	PACIFIC	NBNC	Migratory	Ship Strike		NECROPSIED, BROKEN BONES IN SKULL; EXTENSIVE HEMORRHAGE HEAD AND THORAX.	Carretta et al. 2013	DEAD	1
5-Apr-09	ORANGE	CA	Migratory	Ship Strike		3 DEEP PROPELLER-LIKE CUTS ON RIGHT SIDE, JUST ANTERIOR OF GENITAL OPENING; CARCASS TOWED OUT TO SEA ON 6-APR, RESTRANDED AT 29TH STREET IN DEL MAR ON 10-APR; CARCASS TOWED OUT & RESTRANDED AT TORREY PINES STATE BEACH ON 12-APR; CARCASS EXAMINED BY LACMNH & SWFSC.	Carretta et al. 2013	DEAD	1
9-Apr-09	SITKA	SEAK	Migratory	Unknown Entanglement	Unknown	THICK BLACK LINE WRAPPED TWICE AROUND WHALE'S BODY POSTERIOR TO THE EYES. CITIZEN CUT AND PULLED AWAY THE LINES. ANIMAL SWAM AWAY AND DOVE.	Carretta et al. 2013	SI - L10	0.75
27-Apr-09	ISLAND	PS	Migratory	Ship Strike		LARGE AMOUNT OF BLOOD IN BODY CAVITY, BRUISING IN SOME AREAS OF BLUBBER LAYER AND IN SOME INTERNAL ORGANS. FINDINGS SUGGESTIVE OF BLUNT FORCE TRAUMA LIKELY CAUSED BY COLLISION WITH A LARGE SHIP.	Carretta et al. 2013	DEAD	1
1-May-09	LOS ANGELES	CA	Migratory	Ship Strike		CATALINA ISLAND TRANSPORT VESSEL COLLIDED WITH FREE-SWIMMING CALF ACCOMPANIED BY ADULT; CALF WAS SUBMERGED AT TIME OF COLLISION; PIECES OF FLESH & BLOOD OBSERVED IN WATER; CALF NEVER SURFACED; PRESUMED MORTALITY. VESSEL SIZE = 85 FT. SPEED = 27 KTS.	Carretta et al. 2013	SI - L6A	1
17-May-09	TOFINO	NBNC	Migratory	Unknown Entanglement	Unknown	FREE SWIMMING ANIMAL HAD TAIL STOCK WRAP AND TRAILING ROPE	Paul Cottrell, DFO	SI - L2	1
24-Jun-09	CLALLAM	NBNC	Migratory	Net Fishery	Gillnet	WHALE CAUGHT IN THE BAG SECTION OF A TRIBAL SET GILLNET. WHALE ENCOUNTERED IN MORNING, UNKNOWN ENTANGLEMENT DURATION. NET HAD BEEN SET 8PM PREVIOUS DAY. WHALE WAS ABLE TO BREATHE, BUT COULD NOT FREELY SWIM AND WAS STATIONARY	Carretta et al. 2013	SI - L10	0.75

						WITHIN NET. RIGHT PECTORAL FIN AND HEAD WERE WELL WRAPPED IN NET WEBBING. WHALE REACTED VIOLENTLY AND SWAM AWAY IN RESPONSE TO A DISENTANGLEMENT ATTEMPT. NET WAS RETRIEVED AND FOUND TO BE TORN IN TWO. NO CONFIRMATION THAT WHALE WAS COMPLETELY FREE OF NETTING. WHALE LAST SEEN AT 1030 AM. PRORATE L10 SERIOUS INJURY BECAUSE OF POSSIBLE EXISTING ENTANGLEMENT.			
21-Jul-09	HUMBOLDT	NBNC	Feeding	Net Fishery	Gillnet	FREE-SWIMMING ANIMAL WITH GREEN GILLNET, ROPE & SMALL BLACK FLOATS WRAPPED AROUND CAUDAL PEDUNCLE. PHOTOS SHOW ROPE CUTTING INTO CAUDAL PEDUNCLE. REPORT RECEIVED VIA HSU RESEARCHER ON SCENE DURING RESEARCH CRUISE; ANIMAL RESIGHTED ON 3-AUG; NO RESCUE EFFORT INITIATED; WHALE IDENTIFIED BY J. CALAMBOKIDIS AS PCFG GRAY WHALE, RESIGHTED IN 2010 AND 2011, STILL ENTANGLED. WHALE WAS RESIGHTED IN 2013 AND HAD SHED GEAR, APPARENTLY IN GOOD HEALTH (JEFF JACOBSEN, PERS. COMM.).	Carretta et al. 2013	NSI - Self-released	0
9-Sep-09	CLALLAM	NBNC	Migratory	Ship Strike		USCG VESSEL TRAVELING AT 10 KNOTS WHEN THEY HIT A GRAY WHALE ON 9/9/2009. THE ANIMAL WAS HIT WITH THE PROP AND WAS REPORTED ALIVE AFTER BEING HIT, BLOOD OBSERVED IN WATER.	Carretta et al. 2013	SI - L11	0.52
16-Feb-10	SAN DIEGO	CA	Migratory	Ship Strike		FREE-SWIMMING ANIMAL WITH PROPELLER-LIKE WOUNDS TO DORSUM.	Carretta et al. 2013	SI - L11	0.52
5-Mar-10	SAN DIEGO	CA	Migratory	Unknown Entanglement	Unknown	TOWING ORANGE/WHITE BUOY; AMOUNT OF ASSOCIATED GEAR UNKNOWN. UNIDENTIFIED FISHERY. NO RESCUE EFFORT INITIATED; NO RESIGHTINGS REPORTED; FINAL STATUS UNKNOWN.	Carretta et al. 2013	SI - L10	0.75
12-Mar-10	SANTA BARBARA	CA	Migratory	Ship Strike		21 METER SAILBOAT UNDERWAY AT 13 KTS COLLIDED WITH FREE-SWIMMING ANIMAL; WHALE BREACHED SHORTLY AFTER COLLISION; NO BLOOD OBSERVED IN WATER; MINOR DAMAGE TO LOWER PORTION OF BOAT'S KEEL; FINAL STATUS UNKNOWN.	Carretta et al. 2013	SI - L6A	1
19-Mar-10	27° 53'N, 113° 58' W	M	Migratory	Pot Fishery	Lobster Pot	Entangled in lobster pot gear. Released alive. Contact is Rebeca Kobelkowsky.	SC-62- ProgRepMexico	NSI - Released	0
21-Mar-10	MORSBY ISL	NBNC	Migratory	Unknown Entanglement	Unknown	ANIMAL IS FREE SWIMMING AND HAS TAIL STOCK WRAP AND TRAILING ROPE, NOT ABLE TO RELOCATE	Paul Cottrell, DFO	SI - L2	1
7-Apr-10	MARIN	CA	Migratory	Unknown Entanglement	Unknown	ROPE WRAPPED AROUND CAUDAL PEDUNCLE, FREE-SWIMMING AND DIVING. Date updated, listed in Scordino et al. (2020) as 8 April 2010, updated based on Carretta et al. 2022	Carretta et al. 2022	SI - L10	0.75
11-Apr-10	WHATCOM	NBNC	Migratory	Unknown Entanglement	Unknown	ENTANGLEMENT SCARS FOUND ON DEAD WHALE; THERE WAS A DISTINCT NOTCH IN THE LEFT TAIL FLUKE (FOUND LATER TO BE AN ENTANGLEMENT SCAR).	NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1

16-Apr-10	CLATSOP	NBNC	Migratory	Pot Fishery	Dungeness Crab	ENTANGLED IN CRAB POT LINES, LENGTH OF GEAR UNKNOWN.	Carretta et al. 2013	DEAD	1
7-May-10	LINCOLN	NBNC	Migratory	Pot Fishery	Dungeness Crab	ENTANGLED IN 3 CRAB POTS, WHALE NOT RELOCATED.	Carretta et al. 2013	SI - L10	0.75
11-May-10	ORANGE	CA	Migratory	Net Fishery	Gillnet	FREE-SWIMMING ANIMAL ENTANGLED IN GILLNET; ANIMAL FIRST OBSERVED INSIDE DANA POINT HARBOR ON 5/11/10; ANIMAL SUCCESSFULLY DISENTANGLED ON 5/12/10 & SWAM OUT OF HARBOR; ANIMAL OBSERVED ALIVE IN SURF ZONE FOR SEVERAL HOURS ON 5/14/10 OFF DOHENY STATE BEACH BEFORE WASHING UP DEAD ON BEACH.	Carretta et al. 2013	DEAD	1
17-Aug-10	MENDOCINO	CA	Feeding	Pot Fishery	Dungeness Crab	1.5 OFFSHORE NAVARRO RIVER: CRAB POT LINE SPIRALED AROUND ANIMAL FROM HEAD TO FLUKES, TRAILING 20 FEET OF LINE ATTACHED TO CRAB POT; PECTORAL FIN SEVERED, ONLY NECROTIC TISSUE REMAINING. FREE-SWIMMING, BREACHING, MAKING SHALLOW DIVES; SUCCESSFUL DISENTANGLEMENT. INJURY DESIGNATED AS SERIOUS DUE TO MISSING PECTORAL FIN.	Carretta et al. 2013	SI - L2	1
22-Jan-11	SAN DIEGO	CA	Migratory	Ship Strike		PLEASURE SAILBOAT COLLIDED WITH FREE-SWIMMING ANIMAL; ANIMAL DOVE IMMEDIATELY FOLLOWING CONTACT & WAS NOT RESIGHTED; NO BLOOD OBSERVED IN WATER; FINAL STATUS UNKNOWN. VESSEL SIZE ASSUMED LESS THAN 65 FT. AND SPEED UNKNOWN.	Carretta et al. 2013	SI - L7B	0.14
12-Feb-11	LOS ANGELES	CA	Migratory	Ship Strike		PRIVATE RECREATIONAL VESSEL COLLIDED WITH FREE-SWIMMING ANIMAL; ANIMAL BREACHED JUST PRIOR TO CONTACT, BOUNCING OFF SIDE OF VESSEL; DOVE IMMEDIATELY FOLLOWING CONTACT & WAS NOT RESIGHTED; NO BLOOD OBSERVED IN WATER; FINAL STATUS UNKNOWN; SKIN SAMPLE COLLECTED FROM VESSEL AND GENETICALLY IDENTIFIED AS A FEMALE GRAY WHALE. VESSEL SIZE ASSUMED LESS THAN 65 FT AND SPEED UNKNOWN.	Carretta et al. 2013	SI - L7B	0.14
18-Apr-11	SAN FRANCISCO	CA	Migratory	Ship Strike		CRUSHED MANDIBLE	Carretta et al. 2013	DEAD	1
11-Jun-11	SAN MATEO	CA	Feeding	Ship Strike		MASSIVE HEMORRHAGE INTO THE THORAX, BLOOD CLOTS AROUND LUNGS. LESIONS INDICATE MASSIVE TRAUMA. DUE TO CARCASS POSITION, THE SKELETON COULD NOT BE COMPLETELY EXAMINED (LYING ON BACK, TOP OF SKULL IN SAND)	Carretta et al. 2013	DEAD	1
13-Jul-11	SAN LUIS OBISPO	CA	Feeding	Unknown Entanglement	Unknown	ANIMAL HAS BEEN IN AREA FOR ~5 WEEKS, OBSERVED FEEDING; THIS WAS FIRST OBSERVATION OF ENTANGLEMENT; GRAY LINE WITH BLACK AND WHITE FLOAT WRAPPED AROUND FLUKE/PEDUNCLE AREA, TRAILING LINE, 2 LACERATIONS IN THE FLUKE AREA, ONE DEEP ONE AT THE BASE AND ONE ON ONE OF THE BLADES CAUSING THE TIP TO CURL; ANIMAL OBSERVED ENTANGLED IN THE MORNING BUT AT 1330 OBSERVED	Carretta et al. 2013	SI - L2	1

						WITHOUT ENTANGLEMENT; SHED GEAR ON ITS OWN; GEAR-FREE BUT INJURED.			
27-Jul-11	KITSAP	PS	Migratory	Unknown Entanglement	Unknown	INDICATIONS OF OLD HEALED ENTANGLEMENT SCAR ON FLUKE. OPEN ULCER/ LESIONS ON ABDOMEN OF UNKNOWN ORIGIN.	Carretta et al. 2013	NSI - L5B	0
25-Aug-11	PETERSBURG	SEAK	Feeding	Net Fishery	Net Unknown	ENTANGLED IN 50 LBS. HEAVY MONOFILAMENT WEBBING, CORK LINE, AND LEAD LINE, AS WELL AS OVER 200 LBS. OF BULL KELP ATTACHED TO GEAR; COMPLETELY DISENTANGLED; LEADING EDGE OF FLUKES HAD SIGNIFICANT CUTS AND ABRASIONS; OVERALL BODY CONDITION WAS POOR; MASSIVE INFESTATION OF WHALE LICE AND BARNACLES; ANIMAL VERY EMACIATED AND LACKED ANY VISIBLE SIGNS OF RECENT FEEDING; OBSERVED THE DAY AFTER DISENTANGLEMENT SWIMMING VERY SLOWLY. HEALTH DECLINE DUE TO CONSTRICTING AND WEIGHTED ENTANGLEMENT.	Carretta et al. 2013	SI - L2	1
25-Aug-11	SAN MATEO	CA	Feeding	Pot Fishery	Pot Gear	ONE WHITE "CRAB POT" BUOY NEXT TO BODY BY LEFT PECTORAL FIN; FLOAT STAYED NEXT TO BODY AND DID NOT CHANGE POSITION; ANIMAL REMAINED IN SAME POSITION - POSSIBLY ANCHORED; ONLY OBSERVED FOR ~2 MIN; NOT RESIGHTED, NO RESCUE, OUTCOME UNKNOWN. CONSTRICTING ENTANGLEMENT.	Carretta et al. 2013	SI - L2	1
27-Sep-11	KODIAK	K	Feeding	Pot Fishery	Cod Pot	ENTANGLED IN COD POT GEAR; 3-5 WRAPS OF LINE AROUND PEDUNCLE AND WHALE IMMOBILIZED; 2-3 WRAPS OF FLOATING POLY BUOY LINES WRAPPED CLOSE TO FLUKES, SINGLE WRAP OF POT LINE AROUND PEDUNCLE EXTENDED DOWN TO THE POT AT AN ANGLE; FLUKES IMMOBILIZED; COMPLETELY DISENTANGLED AFTER 2 HRS AND OBSERVED SWIMMING SLOWLY. NON-SERIOUS INJURY BECAUSE WHALE'S CONDITION WAS REPORTED AS GOOD AND ALL GEAR REMOVED.	Carretta et al. 2013	NSI - Released	0
5-Nov-11	Taiwan Strait near mainland China	VSCS	Feeding	Net Fishery	Set gillnet	Entangled in a set gillnet	Burkanov et al. 2017	Dead	1
17-Jan-12	ALEUTIANS EAST	FN	Migratory	Pot Fishery	Cod Pot	A 40' WHALE WAS CAUGHT IN COD POT GEAR NEAR UNIMAK PASS. LINES WERE CUT BY BOAT CREW AND BUOYS WERE RECOVERED, HOWEVER, THE POT AND SOME LINE REMAINED IN THE WATER. ANY LINE POSSIBLY REMAINING ON ANIMAL THOUGHT TO BE MINIMAL. GRAY WHALE DETERMINATION MADE FOLLOWING EXTENSIVE QUESTIONING BY LOCAL MARINE MAMMAL BIOLOGIST. DETERMINATION: PRORATE AT L10 BECAUSE GEAR POSSIBLY REMAINS ON ANIMAL.	Carretta et al. 2014	SI - L10	0.75
22-Jan-12	PACIFIC	NBNC	Migratory	Unknown Entanglement	Unknown	POSSIBLE ENTANGLEMENT, DEEP CABLE-LIKE INDENTATION AROUND GENITAL AREA.	Carretta et al. 2014	DEAD	1
28-Jan-12	SAN DIEGO	CA	Migratory	Unknown Entanglement	Unknown	TOWING TWO ORANGE BUOYS AND AT LEAST 150 FT OF LINE; UNKNOWN FISHERY, REPORTED AS POSSIBLE GILLNET; NO RESPONSE EFFORT. UNKNOWN IF ENTANGLEMENT IS CONSTRICTING OR NOT.	Carretta et al. 2014	SI - L10	0.75

24-Mar-12	LOS ANGELES	CA	Migratory	Net Fishery	Gillnet	GILLNET GEAR AROUND PEDUNCLE; RESPONSE EFFORT RESULTED IN SUCCESSFUL DISENTANGLEMENT WITH >100 FT OF PINK GILLNET REMOVED FROM ANIMAL, BUT ANIMAL SUBSEQUENTLY OBSERVED DEAD ON 03/27 (FLOATING, SKIN SAMPLE TAKEN, NO NECROPSY). NET REMOVED ON 03/24 FOUND TO CONTAIN ONE DEAD CA SEA LION AND THREE DEAD SHARKS.	Carretta et al. 2014	DEAD	1
28-Mar-12	ORANGE	CA	Migratory	Unknown Entanglement	Unknown	LINE DEEPLY EMBEDDED AROUND TAIL STOCK AND UNDER FLUKE; ~45 FEET OF ROPE WITH HAND CARVED BUOY; ANIMAL SUCCESSFULLY DISENTANGLED AND ALL GEAR RECOVERED. CONDITION OF ANIMAL INDICATED THAT ANIMAL IS LIKELY TO SURVIVE.	Carretta et al. 2014	NSI - Released	0
17-Apr-12	ORANGE	CA	Migratory	Unknown Entanglement	Unknown	GRAY WHALE REPORTED ENTANGLED WITH APPROXIMATELY 150 FEET OF LINE TRAILING. FOUR SPONGEX BULLET BUOYS LIE ALONG THE LEFT SIDE OF THE ANIMAL. ENTANGLEMENT INVOLVES THE MOUTH, A WRAP OVER THE HEAD, AND THE LEFT PECTORAL FLIPPER. ENTANGLEMENT APPEARS RECENT. PARTIALLY DISENTANGLED 5/3/12 BY FISHERMEN. UNKNOWN AMOUNT OF GEAR REMAINED ON WHALE.	Carretta et al. 2014	SI - L10	0.75
21-Apr-12	SAN LUIS OBISPO	CA	Migratory	Unknown Entanglement	Unknown	ROPE LIKE MARKS ON CAUDAL PEDUNCLE. ROPE IMPRESSION ON PECTORAL FIN. PHOTOS.	Carretta et al. 2014	DEAD	1
28-Apr-12	MENDOCINO	CA	Migratory	Unknown Entanglement	unknown	SMALL GRAY WHALE OFF FORT BRAGG CA, IN COMPANY OF TWO OTHER ANIMALS, TRAILING TWO BUOYS.	Carretta et al. 2014	SI - L10	0.75
5-May-12	MONTEREY	CA	Migratory	Unknown Entanglement	Unknown	WHALE WATCH VESSEL NOTICED FROM IMAGES TAKEN THAT A GRAY WHALE OBSERVED EARLIER IN THE DAY WAS ACTUALLY ENTANGLED. A SMALL GAUGE LINE, LIKELY FROM RIGHT SIDE OF MOUTH GOES OVER THE ANIMAL'S BACK, AND OVER BLOWHOLES, TO LEFT SIDE OF MOUTH. NO BUOYS OR TRAILING LINE WERE OBSERVED. ANIMAL IN FAIR CONDITION. ANIMAL SIGHTED NEXT DAY BY WHALE WATCH VESSEL. CONFIRMED MOUTH ENTANGLEMENT, APPEARS TO BE STRAPPING MATERIAL. UNKNOWN IF GEAR IS CONSTRICTING.	Carretta et al. 2014	SI - L10	0.75
8-May-12	HUMBOLDT	CA	Migratory	Pot Fishery	Dungeness Crab	DEEP CUTS FROM ROPE AROUND PEDUNCLE AND LACERATIONS AT FLUKE NOTCH AND LATERAL EDGE OF FLUKE. GEAR COLLECTED AND IDENTIFIED AS DUNGENESS CRAB POT GEAR. ANIMAL ENTIRELY FREED OF GEAR BUT CONDITION OF ANIMAL IS FAIR AND SLIGHTLY EMACIATED. DEEP CUTS (~ 2 INCHES) FROM THE ROPE AROUND THE PEDUNCLE REMAINED. GEAR WAS RECOVERED. RESULTS OF ENTANGLEMENT MAY STILL BE LIFE THREATENING.	Carretta et al. 2014	SI - L2	1
11-May-12	MARIN	CA	Migratory	Pot Fishery	Dungeness Crab	LOOP BETWEEN CRAB POTS AND WEIGHTED LINE CAUGHT IN WHALE'S MOUTH; ENTANGLING GEAR STUCK IN ROCKS; ANIMAL ANCHORED WITH SMALL RADIUS OF MOVEMENT FOR 4 DAYS; SUCCESSFULLY DISENTANGLED. GEAR WAS COLLECTED.	Carretta et al. 2014	NSI - Released	0

13-May-12	MONTEREY	CA	Migratory	Unknown Entanglement	Unknown	ANIMAL ENTANGLED THROUGH MOUTH IN AT LEAST TWO SETS OF SUSPECTED POT GEAR THAT THAT HANG BELOW. ANIMAL ANCHORED WITH A SHORT SCOPE IN 28 FEET OF WATER TO SUSPECTED POTS. BUNDLE OF GEAR, INCLUDING 4 BUOYS LIE UNDER ANIMAL. ANIMAL HAVING SOME DIFFICULTY GETTING TO SURFACE. ANIMAL EVENTUALLY DISENTANGLED, BUT RESULTS OF ENTANGLEMENT MAY STILL BE LIFE-THREATENING.	Carretta et al. 2014	SI - L2	1
19-May-12	CURRY	NBNC	Migratory	Pot Fishery	Dungeness Crab	TWO FISHING VESSELS WORKED TOGETHER TO CUT LINES FREE FROM THE CALF. AS THEY WORKED THE CALF Began TO MOVE TO THE WEST ACCOMPANIED BY THE ADULT. ONE LINE REMAINED ATTACHED WHEN DISENTANGLEMENT ATTEMPTS WERE DISCONTINUED; THE CALF WAS ENTANGLED IN SEVERAL LINES IDENTIFIED AS CRAB GEAR. LOCATION NEAR SHORE IN APPROXIMATELY 50 FEET OF WATER NORTH AND WEST OF THE NORTH JETTY ROGUE RIVER MOUTH, GOLD BEACH OREGON. UNKNOWN AMOUNT / CONFIGURATION OF GEAR REMAINED ON ANIMAL.	NOAA Serious Injury Database; NMFS Unpublished Data	SI - L10	0.75
15-Jun-12	NITINAT	NBNC	Feeding	Unknown Entanglement	Unknown	ANIMAL DEAD (VERY DECOMPOSED) ANCHORED TO BOTTOM. MULTIPLE ROPES	Paul Cottrell, DFO	DEAD	1
16-Jun-12	VALDEZ-CORDOVA	FN	Feeding	Net Fishery	Gillnet	GRAY WHALE IN PRINCE WILLIAM SOUND ENTANGLED IN GEAR. THRASHING AT SURFACE AND MOVING AT 4-5 KNOTS. NO WOUNDS OR CHAFING WAS OBSERVED. GILLNET, CORKLINE (AT LEAST 12 FLOATS), AND LEADLINE OBSERVED OVER ANIMAL'S ROSTRUM, BODY, AND TAILSTOCK. BOTH PECTORAL FLIPPERS APPEARED PINNED TO BODY. ANIMAL LATER APPEARED TIRED AND WAS SWIMMING AT 2 KNOTS. IT WAS NOT RELOCATED. ASSIGNED L2 SERIOUS INJURY BECAUSE GEAR APPEARS TO BE CONSTRICTING MOVEMENT OF WHALE.	Carretta et al. 2014	SI - L2	1
22-Aug-12	VALDEZ-CORDOVA	FN	Feeding	Net Fishery	Gillnet	A FISHING NET WAS OBSERVED BEING TRAILED FROM A GRAY WHALE'S BACK. PHOTOS APPARENTLY AVAILABLE, BUT HAVE NOT BEEN LOCATED. PRINCE WILLIAM SOUND. EXTENT AND SEVERITY OF ENTANGLEMENT UNKNOWN.	Carretta et al. 2014	SI - L10	0.75
31-Aug-12	LOS ANGELES	CA	Feeding	Unknown Entanglement	Unknown	FIRST DETECTED NEAR SAN DIEGO. GRAY WHALE REPORTED ENTANGLED WITH SMALL GAUGE, DARK-COLORED LINE, DEEPLY EMBEDDED AROUND ITS TAIL STOCK. LITTLE GEAR TRAILS. ENTANGLEMENT WAS ONCE MORE EXTENSIVE AS INDICATED BY SCARS ON THE ANIMAL'S BODY. ANIMAL IN VERY POOR CONDITION - EMACIATED, SCARRED AND A HEAVY LOAD OF CYAMID AMPHIPODS. BLACK LINE AROUND PEDUNCLE, 20 FT TRAILING; OBSERVED OFF SAN DIEGO ON 8/31, COMPLETELY DISENTANGLED OFF LOS ANGELES 9/6, STRANDED DEAD 9/14/12.	Carretta et al. 2014	DEAD	1
2-Sep-12	TOFINO	NBNC	Feeding	Unknown Entanglement	Unknown	FREE SWIMMING WITH UNIDENTIFIED GEAR, ROPE AND TWO BUOYS, NOT RESIGHTED	Paul Cottrell, DFO	SI - L10	0.75

						MACKERRICHER STATE PARK, JUST OUTSIDE THE SURF ZONE. WHALE REPORTED WITH ROPE AROUND THE PEDUNCLE WHICH WASN'T SEEN IN PHOTOGRAPHS BUT PHOTOS DID SHOW GREEN GILLNET WITH CUTS TO THE HEAD; ANIMAL DISAPPEARED AND FINAL STATUS IS UNKNOWN. CUTS TO HEAD INDICATE CONSTRICTING GEAR.	Carretta et al. 2014	SI - L2	1
13-Oct-12	MENDOCINO	CA	Feeding	Net Fishery	Gillnet				
10-Jan-13	CLALLAM	NBNC	Migratory	Pot Fishery	Pot Gear	GRAY WHALE SWIMMING EAST TOWARDS WHISKEY CREEK SLOWLY FOR 30 MINUTES SAID TO BE ENTANGLED IN ROPE AND BUOYS. ANIMAL NOT RELOCATED, SEVERITY OF ENTANGLEMENT UNKNOWN.	Carretta et al. 2015	SI - L10	0.75
3-Feb-13	SAN DIEGO	CA	Migratory	Pot Fishery	Pot Gear	LINE ENTANGLEMENT DESCRIBED AS "POT GEAR" WITH A SINGLE WHITE BUOY TRAILING. NOT RESIGHTED.	Carretta et al. 2015	SI - L10	0.75
19-Feb-13	Laguna San Ignacio	M	Breeding	Pot fishery	Pot Gear (Lobster)	line and buoy in the mouth; successfully disentangled	PRIMMA	NSI - Released	0
8-Mar-13	CLALLAM	NBNC	Migratory	Pot Fishery	Pot Gear	ENTANGLED WHALE WAS TRAILING ROPE ~ 20 FEET BEHIND AND TWO ORANGE FLOATS. ANIMAL IS THOUGHT TO HAVE AN ENTANGLEMENT ON THE PECTORAL FIN OR HEAD REGION. NO RESIGHTS OF THE ANIMAL HAVE BEEN REPORTED.	Carretta et al. 2015	SI - L10	0.75
22-Mar-13	COOS	NBNC	Migratory	Pot Fishery	Pot Gear	U.S. COAST GUARD IN COOS BAY REPORTED AN ENTANGLED GRAY WHALE CALF A COUPLE MILES WEST OF CAPE ARAGO. A SMALL WHALE (<20 FEET) WAS SEEN LYING FAIRLY MOTIONLESS, IN CLOSE PROXIMITY TO A STRING OF CRAB GEAR. THE WITNESS WAS ABOUT 100 YARDS AWAY IN THE WHEELHOUSE OF A 90' VESSEL AND DIDN'T ACTUALLY SEE ANY GEAR WRAPPED AROUND THE WHALE'S BODY BUT HE THOUGHT IT WAS PROBABLY ENTANGLED. USCG DID A FLYOVER OF THE AREA AND DID NOT RESIGHT THE ANIMAL. EVIDENCE OF CONSTRICTING GEAR BECAUSE WHALE WAS MOTIONLESS.	Carretta et al. 2015	SI - L2	1
28-Mar-13	LOS ANGELES	CA	Migratory	Pot Fishery	Pot Gear	SINGLE STRAND OF ROPE WRAPPED TIGHTLY ONCE AROUND LEFT FLUKE BLADE; ROPE DESCENDS TO BELIEVED LOBSTER POT AT DEPTH OF ~20 M SLIGHTLY BEHIND ANIMAL. INJURED, HIGH CYAMID LOAD. NOT RESIGHTED. EVIDENCE OF CONSTRICTING ENTANGLEMENT.	Carretta et al. 2015	SI - L2	1
13-Apr-13	SANTA BARBARA	CA	Migratory	Unknown Entanglement	Unknown	ANIMAL ENTANGLED IN FOUR OR MORE BUOYS IN TANDEM ON A LINE, 2 SMALL ORANGE BUOYS ON THE ENDS, HALF A YELLOW/BROWN BULLET BUOY AND SMALL YELLOW PLASTIC FLOAT IN THE MIDDLE. SIGHTED, UNABLE TO ATTACH RESCUE LINE.	Carretta et al. 2015	SI - L10	0.75
18-Apr-13	SAN FRANCISCO	CA	Migratory	Pot Fishery	Pot Gear	RESCUE TEAM FOUND GEAR THAT ANIMAL HAD SHED. GEAR IDENTITY CONFIRMED BY CDFW USING BUOY NUMBER. NO ADDITIONAL DETAILS.	Carretta et al. 2015	NSI - Self-released	0
13-May-13	CURRY	NBNC	Migratory	Pot Fishery	Dungeness Crab	REPORTEDLY HAD CRAB BUOY AND 20 FEET OF LINE TRAILING BEHIND IT WAS REPORTEDLY ENTANGLED IN CRAB GEAR SWIMMING WITHIN 1 MILE OF SHORE; FINAL	Carretta et al. 2022	SI - L10	0.75

						OUTCOME UNKNOWN. Recorded by Saez et al. (2020) as occurring on 13 May 2020.			
25-Jun-13	HUMBOLDT	CA	Feeding	Net Fishery	Gillnet	ENTANGLED IN LARGE AMOUNT OF PINK GILLNET WITH BLACK FLOATS AROUND PEDUNCLE AND FLUKES. MODERATE DECOMPOSITION. LATITUDE = 40.617, JUST SOUTH OF PACIFIC COAST FEEDING GROUP BOUNDARY DEFINED BY IWC.	Carretta et al. 2015	DEAD	1
25-Jun-13	MARIN	CA	Feeding	Pot Fishery	Pot Gear	ENTANGLEMENT FOUND WRAPPED THROUGH MOUTH AND ON FLUKES.	Carretta et al. 2015	DEAD	1
27-Jun-13	CURRY	NBNC	Migratory	Pot Fishery	Dungeness Crab	ENTANGLED TO GEAR AT PEDUNCLE AND RIGHT PECTORAL; CRAB POT TAG NUMBER IDENTIFIED AS DUNGENESS CRAB POT GEAR.	Carretta et al. 2015	DEAD	1
16-Jul-13	MARIN	CA	Feeding	Pot Fishery	Dungeness Crab	CDFW TAG ID IDENTIFIED TO DUNGENESS CRAB FISHERMAN; ENTANGLEMENT WAS IN LINE AND BUOYS ONLY (NO POT/TRAP); DEAD STRANDING.	Carretta et al. 2015	DEAD	1
29-Jul-13	GRAYS HARBOR	NBNC	Migratory	Ship Strike		BLUNT FORCE TRAUMA TO LEFT SIDE OF ROSTRUM. ABRASIONS AND SUPERFICIAL LACERATIONS WITH ASSOCIATED BRUISING AND HEMORRHAGE IN BLUBBER AND UNDERLYING MUSCLE; DEGLOVING OF TISSUE FROM BONE AT SITE AND SHATTERED AREAS IN L ROSTRAL BONE. BASED ON SIZE OF IMPACT, IDENTIFIED AS VESSEL STRIKE.	Carretta et al. 2015	DEAD	1
22-Aug-13	Northeast Sakhalin Island	SI	Feeding	Net Fishery	Net Unknown	A whale matched to the Sakhalin feeding group catalogue was observed with rope around the caudal peduncle. The rope was similar to ropes used in the salmon trap fishery operating nearby. Whale self released before being observed in 2014.	Burkanov et al. 2017	NSI - Self-released	0
4-Sep-13	CLALLAM	NBNC	Migratory	Pot Fishery	Dungeness Crab	GRAY WHALE, CONFIRMED (KNOWN PCFG, CASCADIA #819). SEVERAL SIGHTINGS AND THE ANIMAL WAS ULTIMATELY DISENTANGLED BY DFO AND PARKS CANADA.	Carretta et al. 2015	NSI - Released	0
7-Sep-13	Nit Nat Narrows	NBNC	FEEDING	Pot Fishery	Dungeness Crab	HI, DFO Parks Canada, disentanglement successful, whale photographed several months later in good condition [this is same whale as 4 Sept 2013 seen entangled in Clallam County, WA, USA]	Paul Cottrell, DFO	SI - Released	0
8-Sep-13	NORTH SLOPE BOROUGH	FN	Feeding	Ship Strike		WELL-DOCUMENTED VESSEL STRIKE INVOLVING A NOAA RESEARCH RHIB (23 FT IN LENGTH) THAT WAS OVERTURNED BY A GRAY WHALE DURING SATELLITE TAGGING OPERATIONS. WHALE APPEARED UNDER THE BOW OF RHIB, WHICH WAS IMMEDIATELY PUT INTO REVERSE, BUT WHALE LIFTED BOW OF VESSEL HIGH ENOUGH OUT OF THE WATER TO CAUSE IT TO FLIP OVER. ALL PERSONNEL ABOARD WERE RESCUED BY THE R/V AQUILA AND THE RHIB VESSEL WAS RETRIEVED. SLOW SPEED AND SMALL SIZE OF THE RHIB, COMBINED WITH A LACK OF INFORMATION ON POSSIBLE WHALE INJURY SUPPORTS USE OF L6C NON-SERIOUS INJURY CRITERIA.	NOAA Serious Injury Database; NMFS Unpublished Data	NSI - L6C	0
23-Oct-13	OFFSHORE SOUTHERN CA	CA	Feeding	Net Fishery	Swordfish Drift Gillnet	OBSERVER PROGRAM	Carretta et al. 2015	DEAD	1

2014	South of Piltun Lagoon, Sakhalin Island	SI	Feeding	Net Fishery	Salmon Trap Net	Fisherman reported to Sakhalin Energy that a large whale (>10 m long) had entangled and died in a salmon trap south of Piltun Lagoon. Species of whale was not determined but gray whales are most likely large whale to occur in region.	Burkanov et al. 2017	Dead	1
5-Jan-14	MONTEREY	CA	Migratory	Unknown Entanglement	Unknown	ENTANGLEMENT ON HEAD OF WHALE, INCLUDED FLOAT. NO DETAILS ON SEVERITY OF ENTANGLEMENT	Carretta et al. 2016	SI - L10	0.75
13-Jan-14	Laguna Ojo de Liebre	M	Breeding	Pot fishery	Pot Gear (Lobster)	line and 3 buoy in the mouth; successfully disentangled	ESSA / CONANP	NSI - Released	0
22-Mar-14	Laguna San Ignacio	M	Breeding	Pot fishery	Pot Gear (Lobster)	30m of lines and 3 buoys in the mouth and pectoral fin; successfully disentangled	PRIMMA	NSI - Released	0
15-Apr-14	VENTURA	CA	Migratory	Unknown Entanglement	Unknown	ENTANGLED IN UNSPECIFIED GEAR. NO DETAILS ON GEAR TYPE OR SEVERITY OF ENTANGLEMENT.	Carretta et al. 2016	SI - L10	0.75
27-May-14	CURRY	NBNC	Migratory	Pot Fishery	Pot Gear	ENTANGLED GRAY WHALE SIGHTED NEAR GOLD BEACH, APPEARED TO BE SWIMMING WELL IN A NORTHERLY DIRECTION. THE OBSERVER TOOK VIDEO - IT APPEARS TO HAVE AN ORANGE/RED OR WHITE/RED BUOY TRAILING JUST A FEW FEET BEHIND IT. OBSERVER LOST SIGHT OF THE ANIMAL BEFORE CONTACTING OREGON STATE UNIVERSITY. ABSENCE OF CONSTRICTING GEAR COULD NOT BE CONFIRMED FROM VIDEO, THUS ASSIGNED L10 INSTEAD OF L3.	Carretta et al. 2016	SI - L10	0.75
28-May-14	LINCOLN	NBNC	Migratory	Pot Fishery	Pot Gear	GRAY WHALE CALF (ATTENDED BY MOTHER) ENTANGLED IN LINE AROUND HEAD AND TRAILING ONE ORANGE AND ONE WHITE BUOY. BUOYS ESTIMATED TO BE 20-25 FT BEHIND FLUKES. NO DISENTANGLEMENT ATTEMPT. BOTH ANIMALS MOVING NORTH AT APPROX. 3.5 KTS (SHADOWED BY RHIB VESSEL), THUS IT IS THOUGHT NO POT/TRAP IS ATTACHED TO ANIMAL, OTHERWISE SPEED WOULD BE SLOWER. MOTHER OF CALF IS A KNOWN ANIMAL (CRC-554) WITH NORTHERN CA / SOUTHERN OR SIGHTING HISTORY BACK TO 1997. GIVEN THE SIGHTING HISTORY OF MOTHER, SHE AND CALF ARE CONSIDERED PART OF THE PCFG POPULATION.	Carretta et al. 2016	SI - L10	0.75
24-Jul-14	ORANGE	CA	Feeding	Unknown Entanglement	Unknown	ENTANGLED WITH YELLOW LINE WRAPPED AROUND ITS BODY, MAY INVOLVE MOUTH, NO BUOYS; WHALE LICE ON HEAD AND POST CRANIAL DIP; UNKNOWN GEAR TYPE. GEAR DISCARDED BEFORE NOAA COULD EVALUATE. FREE-SWIMMING; NEWPORT BEACH LG FREED WHALE; RESIGHTED MOVING NORTH 7/26. SERIOUS INJURY BECAUSE LACK OF CONFIRMATION THAT ALL GEAR WAS REMOVED.	Carretta et al. 2016	SI - L10	0.75
1-Aug-14	POWELL RIVER	NBNC	FEEDING	Unknown Entanglement	Unknown	INTERVIEW AND EXAMINATION PICS, GEAR CAME OFF ON IT'S OWN	Paul Cottrell, DFO	SI - Self-released	0
2-Sep-14	LOS ANGELES	CA	Feeding	Net Fishery	Gillnet	GILLNET, PINK 8.25 INCH MESH, GEAR EXTENDS 40 FEET BEHIND ANIMAL- GEAR ORIGINATED IN MOUTH AND CUT DOWN TO 10 FEET OUT BOTH SIDES OF MOUTH. ENTANGLEMENT DEEPLY EMBEDDED IN MOUTH, RUNNING DOWN BOTH SIDES OF BODY, UNDER THE PECTORAL FINS, AND OVER THE FLUKE. CUT LINE ON	Carretta et al. 2016	SI - L2	1

						SIDE OF BODY WITH CUTTING KNIFE. SOME GEAR REMAINING IN MOUTH. L2 SERIOUS INJURY BECAUSE OF REMAINING GEAR ON ANIMAL AND APPARENT CONSTRICTING NATURE OF GEAR ('DEEPLY EMBEDDED').			
11-Sep-14	SAN DIEGO	CA	Feeding	Unknown Entanglement	Unknown	ENTANGLED WITH YELLOW POLYLINE AND A COUPLE OF FLOATS TRAILING BEHIND. THRASHING INDICATES RECENT ENTANGLEMENT; ANIMAL IN DISTRESS; ANIMAL NOT RESIGHTED, POSSIBLY LIFE-THREATNING.	Carretta et al. 2016	SI - L10	0.75
21-Jan-15	KING	PS	Migratory	Ship Strike		PIER 52 SEATTLE FERRY DOCK. SHARP FORCE TRAUMA CAUSED BY LARGE PROPELLER. DEFINITE CAUSE OF MORTALITY. 5-6 PROPELLER CUTS ON R SIDE/ACROSS BACK, BEGINNING JUST DORSAL OF RIGHT PECTORAL FIN. UNABLE TO SEE HOW FAR THEY EXTEND ACROSS BACK DUE TO CARCASS POSITION. VISIBLE PORTIONS 80-180CM. MODERATELY DECOMPOSED WHALE.	Carretta et al. 2017	DEAD	1
29-Jan-15	Laguna San Ignacio	M	Breeding	Pot fishery	Pot Gear (Lobster)	line and buoy in the mouth; successfully disentangled	PRIMMA	NSI - Released	0
2-Feb-15	LOS ANGELES	CA	Migratory	Net Fishery	Gillnet	ENTANGLED IN BLUE / GREEN GILLNET, NET AROUND HEAD / BLOWHOLE REGION, FULL GEAR CONFIGURATION UNKNOWN, BUT AN ABSENCE OF GEAR ON FLUKES AND PEDUNCLE NOTED. ANIMAL MILLING AT SURFACE AND CHANGING DIRECTION OFTEN. HEAVY COATING OF BARNACLES ON BODY, ANIMAL IN POOR CONDITION, WITH NECROTIC TISSUE ON THE HEAD EVIDENT. LONG-TERM SURVIVAL UNLIKELY. PHOTOS REVIEWED BY J. CARRETTA AND D. WELLER. Date updated from Scordino et al. (2017) previously recorded as 3 February 2015	Carretta et al. 2017	SI - L10	1
12-Feb-15	Laguna San Ignacio	M	Breeding	Pot fishery	Pot Gear (Lobster)	line and 3 buoy in the mouth; successfully disentangled	PRIMMA	NSI - Released	0
26-Feb-15	SANTA BARBARA	CA	Migratory	Unknown Entanglement	Unknown	POSSIBLE CRAB POTS. BUOY COLORS DIFFICULT TO SEE FROM COAST GUARD VIDEO, REPORTED AS RED AND WHITE. LINE COMES DOWN BOTH SIDES OF BODY AND COMES TOGETHER AT BUOY 1 ABOUT 10 FT IN FRONT OF THE FLUKE, 2ND BUOY RIGHT AT FLUKE INSERTION WRAPPED AROUND TIGHTLY WITH BUOY AT SURFACE; EXAMINATION OF USCG VIDEO BY J. CARRETTA INDICATES EVIDENCE OF CONSTRICTING WRAP AND A WHALE THAT HAS DIFFICULTY TRAVELING NORMALLY. WARRANTS USE OF SERIOUS INJURY CATEGORY L2.	Carretta et al. 2017	SI - L2	1
7-Mar-15	ORANGE	CA	Migratory	Unknown Entanglement	Unknown	INITIALLY SEEN BREACHING MULTIPLE TIMES, THEN RESTING AT SURFACE AND ATTEMPTING TO SWIM BACKWARDS WITH MOUTH OPEN. LINE OR ROPE TRAILING DOWN LEFT SIDE FROM MOUTH TO THE PECTORAL FIN AND AFT OF THE BLOWHOLES, UNABLE TO SEE WHERE THE LINE ORIGINATED. FULL CONFIGURATION OF GEAR IS UNKNOWN. PHOTOS REVIEWED BY J. CARRETTA.	Carretta et al. 2017	SI - L10	0.75

11-Mar-15	SAN LUIS OBISPO	CA	Migratory	Pot Fishery	Dungeness Crab	SELF REPORT FROM FISHERMAN IN HIS OWN GEAR; 1 CRAB POT ON 300 FT OF LINE SET IN 250 FT WITH 2 BUOYS (1 ORANGE/1 PURPLE) WITH TEAL LINE CONNECTING TO BLUE POLY LINE WRAPPED AROUND THE FLUKE; TIER 1 CDFW DUNGENESS CRAB GEAR. FULL EXTENT OF GEAR ENTANGLEMENT UNKNOWN.	Carretta et al. 2017	SI - L10	0.75
16-Mar-15	ORANGE	CA	Migratory	Unknown Entanglement	unknown	LINE COMING OUR RIGHT SIDE OF MOUTH, MORE TRAILING LINE COMING FROM UNDERNEATH. PHOTOS REVIEWED BY J. CARRETTA AND D. WELLER. PHOTOS DO NOT SHOW GEAR, BUT RESPONDERS (J. CALAMBOKIDOS) CONFIRMED PRESENCE OF GEAR. FULL GEAR CONFIGURATION UNKNOWN. ANIMAL HAS MODERATE CYAMID / BARNACLE LOAD, INDICATIONS OF A HEALTH DECLINE, THUS ASSIGNED A SERIOUS INJURY VALUE = 1.	Carretta et al. 2017	SI - L10	1
17-Mar-15	Laguna San Ignacio	M	Breeding	Pot fishery	Pot Gear (Lobster)	line and 3 buoy in the mouth and body; successfully disentangled	PRIMMA	NSI - Released	0
19-Mar-15	JEFFERSON	PS	Migratory	Unknown Entanglement	Unknown	GRAY WHALE REPORTED WITH TAIL ENTANGLED IN FISHING LINE, WITH ORANGE BUOY ATTACHED. NO PHOTOS OR VIDEO TO DETERMINE EXTENT OF GEAR ENTANGLEMENT. REPORTED BY A TUGBOAT TO USCG.	Carretta et al. 2017	SI - L10	0.75
6-Apr-15	Laguna Ojo de Liebre	M	Breeding	Pot fishery	Pot Gear (Lobster)	line and buoy in the mouth; successfully disentangled	ESSA / CONANP	NSI - Released	0
21-May-15	CURRY	NBNC	Migratory	Pot Fishery	Pot Gear	USCG SECTOR NORTH BEND, OREGON REPORTED WHALE TO BE TRAVELING NORTH AT 3 MPH WITH 3 OTHER CONSPECIFICS AND A CALF. ~30 FEET OF LINE WITH A SINGLE YELLOW BUOY TRAILING BEHIND THE WHALE, APPEARED TO BE MOVING OKAY AND NO DESCRIPTION OF WHERE ON THE BODY LINE WAS WRAPPED. 5/25/2015: REPORTED AGAIN BY A WHALE WATCH VESSEL OUT OF DEPOE BAY, WAS SIGHTED HOURS EARLIER IN NEWPORT, OR. LAST KNOWN LOCATION ON 5/25/2015 WAS JUST SOUTH OF THE CAPE MEARES LIGHTHOUSE SWIMMING NORTH AT 3MPH. GEAR CONFIGURATION UNKNOWN, ASSIGNED L10. Recorded by Saez et al. as occurring on 19 May 2015	Carretta et al. 2017	SI - L10	0.75
23-May-15	VALDEZ- CORDOVA	FN	Migratory	Net Fishery	Gillnet	A FRESH GRAY WHALE CARCASS WAS DISCOVERED ON THE COPPER RIVER DELTA. THE CARCASS DISPLAYED LINEAR CUTS AND CHAFING ON THE ROSTRUM, INDICATIVE OF RECENT GILLNET ENTANGLEMENT. EXAMINED BY K. WYNNNE AND E. LYMAN. [length added from Alaska Region database]	Carretta et al. 2017	DEAD	1
30-Jul-15	ORANGE	CA	Feeding	Net Fishery	Halibut Gillnet	FISHERMEN SELF-REPORT. BRINGING IN SET NET WHEN GRAY WHALE APPROACHED FROM UNDER BOAT, HIT NET, SPUN, VIOLENTLY REACTED, EVENTUALLY BROKE FREE, UNCERTAIN IF ANY GEAR REMAINED ON WHALE; FISHERMAN UNSURE IF EVEN REALLY EVER ENTANGLED BUT THINKS 20 FT OF HIS NET MAY BE HAVE BEEN GONE. UNKNOWN GEAR CONFIGURATION ON ANY REMAINING GEAR. NO PHOTOS.	Carretta et al. 2017	SI - L10	0.75

15-Aug-15	CLALLAM	NBNC	Migratory	Net Fishery	Gillnet	JUVENILE GRAY WHALE INITIALLY FOUND ANCHORED AND ENTANGLED IN A MARINE SET GILLNET INSIDE NEAH BAY. REPORTED WHALE HAD 3-4 WRAPS OF LEADLINE AND CORKLINE AROUND THE CAUDAL PEDUNCLE WITH LINES STREAMING OVER THE FLUKE LEADING TO A MASS OF GILLNET MESH AND LINES. WHALE REMAINED IN AREA, WITH MULTIPLE DISENTANGLEMENT EFFORTS CONTINUING INTO SEPTEMBER. FINAL PHOTOS OF WHALE SHOW ANIMAL SWIMMING FREE, FEEDING NORMALLY, AND APPARENTLY GEAR FREE. INITIAL INJURY ASSESSMENT IS L2 BECAUSE OF CONSTRICTING GEAR, BUT FINAL ASSESSMENT IS NON-SERIOUS INJURY BECAUSE OF INTERVENTION EFFORTS. BIOPSY SAMPLE ALSO OBTAINED AND SENT TO SWFSC. PHOTOS AND NARRATIVE PROVIDED BY MAKAH TRIBE, REVIEWED BY J. CARRETTA.	Carretta et al. 2017	NSI - Released	0
8-Sep-15	SANTA BARBARA	CA	Feeding	Unknown Entanglement	Unknown	GRAY WHALE REPORTED AS ENTANGLED IN NETTING, NO ADDITIONAL DETAILS.	Carretta et al. 2017	SI - L10	0.75
26-Sep-15	SAN DIEGO	CA	Feeding	Net Fishery	Gillnet	VESSEL DEFIANCE REPORTED A GRAY WHALE ENTANGLED IN NETTING WITH NO TRAILING GEAR 12 MILES OFF SAN ONOFRE. NO FURTHER DETAILS AVAILABLE.	Carretta et al. 2017	SI - L10	0.75
21-Dec-15	SAN DIEGO	CA	Migratory	Pot Fishery	Pot Gear	ENTANGLED ON LEFT SIDE TRAILING LOBSTER-TYPE BUOY POSSIBLY ALSO ON FLUKES, BUOY ORANGE IN COLOR AND EASILY VISIBLE. GEAR CONFIGURATION UNKNOWN.	Carretta et al. 2017	SI - L10	0.75
5-Feb-16	ORANGE	CA	Migratory	Unknown Entanglement	Unknown	ENTANGLED IN ROPE, DRAGGING A SINGLE WHITE BUOY. TRAVELING WITH OTHER WHALES SOUTHBOUND, NO PHOTOS. OFF DANA POINT.	Carretta et al. 2019	SI - L10	0.75
14-Feb-16	Laguna San Ignacio	M	Migratory	Unknown Entanglement	Unknown	short line and buy in the pectoral fin; unsuccessful on disentanglement effort	PRIMMA	SI - L10	0.75
10-Mar-16	Laguna Ojo de Liebre	M	Migratory	Unknown Entanglement	Unknown	50m of lines and four buys in the mouth; successfully disentangled	ESSA Y PROFEPA	NSI - Released	0
24-Mar-16	SAN DIEGO	CA	Migratory	Ship Strike		"S" SHAPED LACERATIONS ALONG LEFT LATERAL SIDE AT ABDOMINAL (6) AND PEDUNCLE (6) INDICATE THIS ANIMAL WAS HIT BY A SHIP, ALTHOUGH IT IS NOT CLEAR IF THIS HAPPENED BEFORE OR AFTER DEATH.	Carretta et al. 2019	DEAD	1
21-Apr-16	ORANGE	CA	Migratory	Unknown Entanglement	Unknown	JUVENILE OR CALF SWIMMING NORTH WITH YELLOW LINE, MULTIPLE WRAPPED AROUND TAIL STOCK, OVER FLUKES, 2 WHITE BULLET BUOYS AT BASE OF TAIL STOCK, LINE TRAILING WHALE 50 FEET. ANIMAL RE-SIGHTED ON 4/27/2016, SWIMMING WITH ADULT ANIMAL OFF BIG SUR. NO TELEMETRY ATTEMPT MADE BECAUSE OF SMALL SIZE OF WHALE. CONFIGURATION AND SEVERITY OF ENTANGLEMENT UNKNOWN. OUTCOME UNKNOWN. EXTENSIVE WRAPS LIKELY TO BECOME CONSTRICTING AS ANIMAL GROWS.	Carretta et al. 2019	SI - L2	1
22-Apr-16	ORANGE	CA	Migratory	Unknown Entanglement	Unknown	LINE WRAPPED AROUND THE BASE OF THE FLUKES; WHITE BUOY AT BASE OF TAIL, TRAILING LINE APPEARS TO BE 15-20 FEET LONG, NO FLOATS ATTACHED TO	Carretta et al. 2019	SI - L10	0.75

							TRAILING LINE [NOT SAME WHALE AS 20160421ER, BASED OFF COMPARISON OF VIDEO TO PHOTOS, BODY SIZE, SWIMMING PATTERN, COLOR PATTERN]. ANIMAL DESCRIBED AS MOVING NORTH AT 2-3KTS AND NOT USING ITS FLUKES VERY MUCH.			
22-Jul-16	LINCOLN	NBNC	Feeding	Ship Strike			USCG MOTOR LIFEBOAT STRUCK A GRAY WHALE WHILE TRAVELING AT APPROXIMATELY 10 KNOTS. FOLLOWING COLLISION, WHALE POPPED ITS HEAD ABOVE THE SURFACE AND THEN DOVE. USCG MOTOR LIFEBOATS ARE APPROXIMATELY 45 FT IN SIZE. NO DETAILS ON INJURY TO WHALE.	Carretta et al. 2019	NSI - L6C	0
1-Aug-16	CURRY	NBNC	Feeding	Ship Strike			MULTIPLE DEEP CUTS INTO LEFT THORAX AND ABDOMEN CLEARLY INDICATE PROPELLER WOUNDS. MODERATELY-DECOMPOSED CALF.	Carretta et al. 2019	DEAD	1
28-Jan-17	LOS ANGELES	CA	Migratory	Pot Fishery	Dungeness Crab		TIGHT MULTIPLE WRAPS AROUND TAILSTOCK RIGHT AT THE FLUKE INSERTION WITH 3 LINES CUTTING INTO THE LEADING EDGES OF THE FLUKES AND TRAILING OVER THE TOP OF THE FLUKES. THE REST OF LINES WRAPPED AROUND PEDUNCLE GO UNDER THE TAIL AND TRAIL APPROX. 50-75 FEET BEHIND THE WHALE. IN THE LINE THERE ARE THREE BUOYS (ALL BULLET) WITH ONE BEING A BIT SMALLER ORANGE AND THEN TWO LITTLE LARGER BUOYS. ONE WAS ALL ORANGE AND THE OTHER TRICOLOR WITH ORANGE AT TOP/ WHITE IN MIDDLE / AND BLACK ON BOTTOM. THIS BUOY HAD A CALIFORNIA DCRAB TAG THAT WAS LIGHT BLUE BUT COULDN'T READ ANYTHING ON IT. PARTIAL DISENTANGLEMENT ACCOMPLISHED AND RESIGHT OF ANIMAL NEXT DAY INDICATED BUOYS HAD MOVED FURTHER BACK TOWARD TAIL. ANIMAL WAS USING ITS PECTORAL FLIPPERS FOR SWIMMING PRIMARILY. ASSIGNED SERIOUS INJURY UNDER L2 DUE TO CONSTRICTING NATURE OF GEAR REMAINING ON ANIMAL AND APPARENT INABILITY TO FULLY-UTILIZE ITS FLUKES.	Carretta et al. 2022	SI - L2	1
29-Jan-17	ORANGE	CA	Migratory	Ship Strike			A 65FT COASTAL CRUISER STRUCK A WHALE WHILE TRANSITING BETWEEN NEWPORT HARBOR AND DANA POINT HARBOR, 2 NM NW OF DANA POINT HARBOR. INJURED GRAY WHALE IS REPORTED ALIVE AND APPEARS TO HAVE THE FOLLOWING INJURIES: 3 LARGE LACERATIONS NEAR ITS PECTORAL FIN. LOTS OF BLOOD IN WATER.	Carretta et al. 2019	SI - L6A	1
12-Feb-17	SAN DIEGO	CA	Migratory	Unknown Entanglement	Unknown		ENTANGLED WHALE HAD WOOD-LIKE FLOAT TRAILING 30 YARDS BEHIND. WHALE BREACHING FOR 10-15 MIN BEFORE MOVING ON WITH OTHER WHALES. NO PHOTOS, GEAR TYPE / CONFIGURATION UNKNOWN.	Carretta et al. 2019	SI - L10	0.75
26-Feb-17	Laguna Ojo de Liebre	M	Migratory	Unknown Entanglement	Unknown	line and buoy in the flukes; unsuccessful in effort to disentangle		ESSA Y CONANP	SI - L10	0.75
4-Mar-17	Laguna San Ignacio	M	Migratory	Unknown Entanglement	Unknown	line and buoy in the mouth; successfully disentangled		PRIMMA	NSI - Released	0

8-Mar-17	Laguna San Ignacio	M	Migratory	Unknown Entanglement	Unknown	line and two buys in the mouth and peduncle; successfully disentangled	PRIMMA	NSI - Released	0
12-Mar-17	SAN DIEGO	CA	Migratory	Unknown Entanglement	Unknown	FREE-SWIMMING WHALE TOWING A SINGLE BUOY APPROXIMATELY 10 FEET BEHIND ANIMAL. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN. ANIMAL RESIGHTED NEXT DAY, 15 NMI NW OF PREVIOUS DAY'S POSITION, STILL TRAILING BUOY, NOT RAISING FLUKES ABOVE WATER DURING SEVERAL SURFACING CYCLES. VIDEO REVIEWED BY J. CARRETTA.	Carretta et al. 2019	SI - L10	0.75
19-Mar-17	ORANGE	CA	Migratory	Net Fishery	Gillnet	WHALE SWIMMING WITH MASS OF BLUE ROPE, PINK GILLNET, AND BLACK FLOATS AROUND FLUKES. CLOSE-UP PHOTO SHOWS OPEN WOUND WHERE BLUE ROPE AND FLOATS ARE ATTACHED. SERIOUS INJURY BECAUSE OPEN WOUND HAS POTENTIAL TO BECOME NECROTIC. VIDEO AND PHOTOS REVIEWED BY J. CARRETTA.	Carretta et al. 2019	SI - L2	1
20-Mar-17	Laguna San Ignacio	M	Migratory	Unknown Entanglement	Unknown	line and buy in the mouth; whale not found to disentangle	PRIMMA	SI - L10	0.75
28-Mar-17	ORANGE	CA	Migratory	Net Fishery	Gillnet	PINK MONOFILAMENT NETTING ON HEAD, EXTENDING BACK PAST BLOWHOLES AND DOWN LEFT SIDE OF ANIMAL TO WATERLINE. MONOFILAMENT NETTING WOUND ON ITSELF. WHALE IS RAISING ITS FLUKES DURING DIVE CYCLES. NO ENTANGLEMENT ON FLUKES OR TAILSTOCK VISIBLE. TOTAL AMOUNT AND CONFIGURATION OF GEAR UNKNOWN. PHOTOS REVIEWED BY J. CARRETTA.	Carretta et al. 2019	SI - L10	0.75
1-Apr-17	ORANGE	CA	Migratory	Other	Marine Debris	GRAY WHALE SWIMMING WITH LARGE METAL FRAME AROUND HEAD, JUST POSTERIOR TO BLOWHOLES. FRAME IS FIRMLY ATTACHED TO WHALE AND IS CONSIDERED TO BE A SERIOUS INJURY DUE TO THE CONSTRICTING NATURE OF THE ENTANGLEMENT AND PROBABILITY OF PREVENTING THE WHALE FROM FEEDING PROPERLY. WHALE RESIGHTED 9 DAYS LATER AS IT MOVED NORTH ALONG THE COAST. PHOTOS / VIDEO REVIEWED BY J. CARRETTA.	Carretta et al. 2019	SI - L2	1
15-Apr-17	ORANGE	CA	Migratory	Net Fishery	Gillnet	BLUE TWINE LINE ON TAIL WITH KELP, GILLNET WRAPPED AROUND TAILSTOCK AND LEADING EDGE OF FLUKE; RIGHT TIP OF FLUKE BROKEN OFF AND POSSIBLE NECROTIC TAIL DUE TO POOR BLOOD FLOW; INITIAL MEASUREMENTS ~6 INCH MESH SIZE. SWIMMING SLOWLY, MOSTLY WITH PECTORAL FLIPPERS, SURFACING HEAD 1ST AND NO FLUKE UP DIVING. WHALE DISENTANGLEMENT TEAM REMOVED OVER 100 FEET OF GILLNET. THERE IS STILL SOME WEBBING AND LINE REMAINING ON FLUKES. CONSIDERED SERIOUS INJURY DUE TO ORIGINAL AND POSSIBLY CONTINUING CONSTRICTING NATURE OF ENTANGLEMENT.	Carretta et al. 2019	SI - L10	1
16-Apr-17	LOS ANGELES	CA	Migratory	Unknown Entanglement	Unknown	ORANGE LINE WRAPPED AROUND CAUDAL PEDUNCLE. NO PHOTOS. UNKNOWN GEAR CONFIGURATION AND AMOUNT.	Carretta et al. 2019	SI - L10	0.75

19-Apr-17	SAN LUIS OBISPO	CA	Migratory	Unknown Entanglement	Unknown	CALF OF PAIR ENTANGLED WITH YELLOW / ORANGE ROPE OVER BACK, THINNER WHITE LINE DRAPED OVER UPPER TAILSTOCK. GEAR AMOUNT AND CONFIGURATION UNKNOWN.	Carretta et al. 2019	SI - L10	0.75
21-Apr-17	ORANGE	CA	Migratory	Unknown Entanglement	Unknown	BLUE ROPE/GEAR TRAILING 5 FEET, SMALL "BLUE" BUOYS DESCRIBED; IT IS POSSIBLE THAT THIS WHALE IS SAME AS 4/15 ENTANGLED IN GILLNET THAT WAS PARTIALLY REMOVED. VIDEO REVIEWED BY J. CARRETTA. GEAR CONFIGURATION AND AMOUNT UNDETERMINED.	Carretta et al. 2019	SI - L10	0.75
28-Apr-17	PACIFIC	NBNC	Migratory	Pot Fishery	Dungeness Crab	GEAR FROM MULTIPLE POTS WRAPPED AROUND CAUDAL PEDUNCLE OF DEAD, FLOATING MALE CALF OF THAT YEAR (20 FEET IN LENGTH). FISHERY SOURCE BASED ON GEAR TAGS RETRIEVED FROM WHALE. NECROPSY DETERMINED ENTANGLEMENT AS CAUSE OF DEATH.	Carretta et al. 2019	DEAD	1
12-Jun-17	GRAYS HARBOR	NBNC	Feeding	Unknown Entanglement	Unknown	SEVERE ENTANGLEMENT INJURIES ON TAILSTOCK AND FLUKE. NOT HEALED. DEEP CUTS FROM LINES ON EACH SIDE OF FLUKE INSERTION, WRAP INJURY WITH ABRAIDED TISSUE CUTTING DEEP INTO R FLUKE (2/3 TOWARD TIP). POSSIBLE IMPRESSIONS ACROSS HEAD.	Carretta et al. 2019	DEAD	1
15-Jun-17	LAKE AND PENINSULA BOROUGH	FN	Feeding	Net Fishery	Gillnet	ADF&G CHIGNIK AREA MANAGEMENT BIOLOGIST PASSED ALONG MULTIPLE REPORTS FROM PEOPLE AROUND CHIGNIK LAGOON REPORTING GRAY WHALE WITH FISHING LINE ENTANGLED AROUND TAIL. IT WAS SWIMMING BUT SLOWLY NEAR FISHING BOATS BY THE MOUTH OF THE LAGOON. ADDITIONAL DETAILS: REPORTED BY LOCAL FISHERMEN ON 6/14/17 IN CHIGNIK LAGOON. SMALL GRAY WHALE, POSSIBLY SUBADULT. GEAR DESCRIBED AS JAPANESE FISHING NET WITH BLACK FLOATS (SHE DOESN'T KNOW HOW THEY ID'D AS JAPANESE). NET WRAPPED AROUND FLUKE. ASSIGNED PRORATED SERIOUS INJURY DUE TO UNKNOWN AMOUNT AND CONFIGURATION OF GEAR.	Carretta et al. 2019	SI - L10	0.75
8-Nov-17	VENTURA	CA	Feeding	Net Fishery	Unknown	DEAD ANIMAL WITH ROPE, NETTING AND WIRE IN MOUTH. GEAR CAME LOOSE FROM ANIMAL WHILE IT WAS ROLLING AROUND IN SURF.	Carretta et al. 2019	DEAD	1
11-Dec-17	ORANGE	CA	Migratory	Net Fishery	Gillnet	YELLOW ROPE ON TAIL AND TRAILING 100 FEET BEHIND WHALE; RESPONSE EFFORTS CONFIRMED 8 INCH PINK MONOFILAMENT GILLNET WRAPPED AROUND TAIL, INCLUDING MULTIPLE BLACK FLOATS, YELLOW AND BLACK ROPE. ANIMAL SWIMMING SLOWLY NORTH AND DIVING. INTERVENTION RESPONSE RESULTED IN THE CUTTING AND REMOVAL OF SOME GEAR. WHALE WAS LOST AFTER THIS INTERVENTION AND REMAINING GEAR AMOUNT AND CONFIGURATION IS UNKNOWN.	Carretta et al. 2019	SI - L10	0.75
29-Jan-18	OFFSHORE	CA	Migratory	Net Fishery	Drift Gillnet	OBSERVER PROGRAM	NOAA Serious Injury Database; NMFS	DEAD	1

								Unpublished Data		
21-Feb-18	Laguna San Ignacio	M	Migratory	Unknown Entanglement	Unknown	line in the mouth and line, buy and lobster tramp in the peduncle; successfully disentangled.		PRIMMA	NSI - Released	0
21-Feb-18	ORANGE	CA	Migratory	Unknown Entanglement	Unknown	LINE ENTANGLED AROUND THE BASE OF THE PEDUNCLE AND OVER THE FLUKE. LINE APPEARS TO BE CUTTING INTO PEDUNCLE TISSUE. REPORTING PARTY NOTED THAT LINE HAD SOME TENSION AND MAY HAVE BEEN CARRYING SOME WEIGHT. ANIMAL BODY CONDITION LOOKED GOOD FROM PHOTOGRAPHS REVIEWED BY J. CARRETTA. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN.		NOAA Serious Injury Database; NMFS Unpublished Data	SI - L2	1
21-Feb-18	MONTEREY	CA	Migratory	Unknown Entanglement	Unknown	SINGLE ROUND (NOT OBLONG) RED / ORANGE BUOY TRAILED RELATIVELY CLOSE BEHIND WHALE. NO PHOTOS. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN.		NOAA Serious Injury Database; NMFS Unpublished Data	SI - L10	0.75
3-Mar-18	VENTURA	CA	Migratory	Net Fishery	Gillnet	BLUE MESH GILLNET WRAPPED AROUND CAUDAL PEDUNCLE OF SWIMMING WHALE, WITH 4 TO 5 SMALL, RED BULLET BUOYS ASSOCIATED. MESH SIZE DIFFICULT TO DETERMINE AS PHOTOS WERE TAKEN FROM OBSERVER ON SHORE. PHOTOS REVIEWED BY J. CARRETTA.		NOAA Serious Injury Database; NMFS Unpublished Data	SI - L10	0.75
18-Mar-18	LOS ANGELES	CA	Migratory	Ship Strike		NMFS RECEIVED CALLS TO REPORT THAT THE STARSHIP EXPRESS HAD STRUCK WHAT THEY BELIEVED TO BE A GRAY WHALE MID CHANNEL ON THE WAY TO CATALINA. THE CAPTAIN SAID THAT THE WHALE SURFACED ABOUT 20 FT IN FRONT OF THE BOAT WHEN IT WAS TRAVELING AT APPROXIMATELY 25 KTS SO THERE WAS NO WAY TO STOP OR AVOID THE COLLISION. HE DID INDICATE THAT THERE WAS SOME DAMAGE TO THE BULBOUS BOW AND THAT HE BELIEVED THE WHALE WAS INJURED BUT ALIVE AFTER THE CONTACT. CATEGORIZED AS SERIOUS INJURY BASED ON SIZE AND SPEED OF VESSEL.		NOAA Serious Injury Database; NMFS Unpublished Data	SI - L6A	1
26-Mar-18	SAN DIEGO	CA	Migratory	Ship Strike		ANIMAL EXAMINED ON BEACH BY SWFSC STRANDING PROGRAM. ORGANS PROTRUDING THROUGH LACERATION AT RIGHT DORSAL SIDE AT MID-LENGTH. FRACTURED VERTEBRAE AND BONE FRAGMENTS IN THIS REGION. UNKNOWN IF THIS VESSEL STRIKE REPRESENTS SAME ANIMAL STRUCK OFF CATALINA ISLAND ON 3/18/2018. TREATED AS UNIQUE RECORD.		NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
28-Mar-18	MARIN	CA	Migratory	Other	Copper wire	OBSERVED FLOATING IN RICHARDSON BAY MARCH 28 2018. FLUKES AND DISTAL PEDUNCLE MISSING. WITHIN A PORTION OF GRAY NECROTIC TISSUE IS A 6-INCH LENGTH OF WIRE WITH A COPPER CORE, DEEPLY ENTWINED WITH THE NECROTIC TISSUE.		NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
13-Apr-18	PACIFIC	CA	Migratory	Pot Fishery	Crab	WHALE HAD BEEN SIGHTED ALIVE NINE DAYS PRIOR TO STRANDING RESPONSE. THE WHALE WAS ENTANGLED		NOAA Serious Injury	DEAD	1

						IN WASHINGTON DUNGENESS CRAB POT GEAR WHICH WAS IDENTIFIED BY TAG NUMBERS RECOVERED AT SCENE. BUOY AT LEFT MOUTH, LINE THROUGH MOUTH CIRCLING RIGHT FLIPPER ACROSS BACK TO LEFT PEDUNCLE (THIS IS THE CONFIGURATION FOUND WHEN THE ANIMAL STRANDED DEAD ONSHORE, LIKELY DIFFERENT WHEN THE ANIMAL WAS ALIVE). BRUISING AROUND PEDUNCLE WHICH MAY SUGGEST IT WAS ENTANGLED AT SOME POINT IN TIME. PHOTOS SHOW LINE THROUGH MOUTH AND A RED/BLACK STRIPE BUOY. CAUSE OF DEATH LISTED AS INANATION (=STARVATION).	Database; NMFS Unpublished Data		
						ORANGE BUOY AND LINE ENTERING MOUTH LEFT SIDE AND EXITING MOUTH RIGHT SIDE. THIS TRAILS TO A SECOND ORANGE BUOY WITH DARK GREEN AND WHITE STRIPES TO JUST IN FRONT OF THE FLUKES. ONE 10" ORANGE WITH WHITE AND GREEN STRIPED BULLET BUOY AND ANOTHER SOLID ORANGE BULLET BUOY ~ THE SAME SIZE AS THE OTHER. THEY ARE BOTH TRAILER BUOYS PART OF THE SURFACE SYSTEM OF A CRAB SET. LINE 3/8" POSSIBLY BLUE STEEL. GEAR AND VESSEL IDENTIFIED AS PART OF WASHINGTON COMMERCIAL DUNGENESS CRAB FISHERY. PERFORMED SEARCH ON 4/14/18 AND FOUND ENTANGLED GRAY WHALE JUST OFF THE CLINTON FERRY TERMINAL. TEAM SUCCESSFULLY ATTACHED A TELEMETRY BUOY AND COLLECTED UNDERWATER FOOTAGE TO DOCUMENT THE ENTANGLEMENT. THE TELEMETRY BUOY RECEIVED SEVERAL HITS WHILE TEAM WAS WITH THE WHALE SO CONFIDENT TO RELOCATE THE FOLLOWING DAY. ON 4/15/18 TEAM STARTED AT 8:30AM AND SEARCHED SEATTLE UP THROUGH SARATOGA PASSAGE AND ADMIRALITY INLET TO THE NORTH ENTRANCE OF PUGET SOUND. JOHN CALAMBOKIDIS WAS ABLE TO LINE UP AN AERIAL FLIGHT TO SEARCH VIA VHF FROM WHIDBEY AS WELL. AT NOON A NEW LOCATION CAME THROUGH FROM TELEMETRY BUT IT WAS ON LAND-A RESIDENTIAL NEIGHBORHOOD ON THE QUIMPER PENINSULA. LATER THIS AFTERNOON A CALL CAME THROUGH THE SOS-WHALE HOTLINE FROM THE OWNER OF A VESSEL ASSIST COMPANY. HE RETRIEVED OUR GRAPPLE, OUR LINE AND TELEMETRY BUOY AND ONE OF THE ENTANGLING FLOATS FROM ANOTHER VESSEL EARLIER THIS MORNING. THIS MEANS THE WHALE IS PARTIALLY DISENTANGLED. UNKNOWN AMOUNT AND CONFIGURATION OF GEAR REMAINING ON WHALE. PHOTOS OF WHALE SHOW A VERY THIN ANIMAL THAT IS NOT IN GOOD HEALTH. SERIOUS INJURY PRORATED TO A VALUE OF 1 DUE TO DETERIORATING HEALTH.	NOAA Serious Injury Database; NMFS Unpublished Data	SI - L10	1
13-Apr-18	SNOHOMISH	NBNC	Migratory	Pot Fishery	Dungeness Crab	REPORTING PARTY INDICATED GILLNET ON THE HEAD AND DOWN ALONG THE BODY, WITH A MASS OF GILLNET	NOAA Serious Injury	SI - L10	0.75

						ON OR NEAR THE TAIL. SINGLE PHOTO SHOWS MASS OF PINK MONOFILAMENT GILLNET EXTENDING FROM HEAD REGION TO DORSAL HUMP. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN. WHALE REPORTED SWIMMING TO THE NORTHWEST.	Database; NMFS Unpublished Data		
24-Apr-18	ORANGE	CA	Migratory	Net Fishery	Gillnet	GILLNET (PINK MESH, 1/2 GREEN ROPE, ~20 SMALL RED/ORANGE FLOATS) WRAPPED AROUND PEDUNCLE AND TRAILING OVER LEFT FLUKE LOBE. MOST OF THE GEAR IS BUNCHED UP IN A TIGHT BALL AROUND THE PEDUNCLE, CLOSE TO THE ANIMAL AND FAIRLY TIGHT AROUND PEDUNCLE. THERE IS ALSO SOME TRAILING GEAR (TANGLED UP MESH AND PROBABLY A LEAD LINE) TRAILING ABOUT ~20FT BEHIND WHALE. THE TRAILING GEAR IS ALWAYS BELOW THE SURFACE, BUT NOT ANCHORED OR DRAGGING ANYTHING TOO HEAVY. SO LIKELY THE TRAILING GEAR IS WEIGHTED SOMEHOW OR BEEN FOULED UP ALONG THE WAY. UNSUCCESSFUL TELEMETRY DEPLOYMENT; PRESUMED STILL ENTANGLED. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN.	NOAA Serious Injury Database; NMFS Unpublished Data	SI - L2	1
4-May-18	ALAMEDA	CA	Migratory	Ship Strike		NECROPSY RESULTS INDICATED A FRACTURED CRANIUM AND MUSCULAR AND SKELETAL HEMORRHAGING. CONSISTENT WITH BLUNT FORCE TRAUMA CHARACTERISTIC OF A VESSEL STRIKE.	NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
6-May-18	SAN LUIS OBISPO	CA	Migratory	Pot Fishery	Dungeness Crab	PHOTOS FROM 5/6/2018 SHOWS A SINGLE ORANGE BUOY NEXT TO A HEAVILY-SCAVENGED GRAY WHALE CARCASS. BUOY NUMBER OBTAINED AND FISHERMAN INTERVIEWED. FISHERMAN INDICATED HIS GEAR WAS NOT TOUCHING WHALE AND FISHERMAN REMOVED GEAR FROM AREA AFTER SEEING PHOTOS OF WHALE. NO EXPLICIT PHOTO EVIDENCE THAT BUOY OR LINE IS ATTACHED TO CARCASS, HOWEVER, HARBOR PATROL WENT TO SAME EXACT LOCATION THE NEXT DAY AND FOUND THE CARCASS UNMOVED, INDICATING IT WAS ANCHORED BY SOMETHING. BUOY WAS NO LONGER VISIBLE ON 5/7/2018.	NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
8-May-18	CLALLAM	NBNC	Migratory	Pot Fishery	Dungeness Crab	ANCHORED WHALE WITH LINE WRAPPED AROUND THE PEDUNCLE AND BOTH FLUKE BLADES WITH THREE FLOATS AND LINE TRAILING TO APPROXIMATELY 60' BEHIND THE WHALE. DOCUMENTATION CONFIRMED NO OTHER BODY PARTS WERE INVOLVED. RESCUE TEAM WAS ABLE TO CUT MOST LINE AWAY BUT SEVERAL WRAPS REMAINED AROUND NECROTIC TISSUE AT CAUDAL PEDUNCLE. THIS WHALE WAS FOUND DEAD STRANDED ON MAY 27TH.	NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
11-May-18	CORDOVA	SEAK	Migratory	Net fishery	Salmon gillnet	WHALE ENTANGLED IN SALMON GILLNET. VISIBLE BLOOD FLOW. GEAR AMOUNT AND CONFIGURATION UNKNOWN. OUTCOME UNKNOWN.	Carretta et al. 2022	SI - L10	0.75

17-May-18	SANTA CRUZ	CA	Migratory	Ship Strike		PROPELLER WOUNDS PRESENT NEAR TAIL. NO ADDITIONAL DETAILS PROVIDED.	NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
18-May-18	MARIN	CA	Migratory	Unknown Entanglement	Unknown	PALE DISCOLORED BAND OF SKIN AROUND THE NECK APPROX. 20 CMS WIDE, THE BLUBBER BENEATH THIS DISCOLORED AREA HAS SMALL PATCHES OF HEMORRHAGE. THE LEFT AXILLA HAS A LACERATION AROUND THE FLIPPER BASE, WITH DISCOLORED MUSCLE AND EDEMA BENEATH IT. THE SKIN OF THE LEFT FLIPPER IS DRY AND MISSING IN MULTIPLE PLACES. THE LEFT COMMISSURE OF THE MOUTH HAS A PALE LINEAR MARK IN IT, AND IS COVERED IN LICE. THE RIGHT SIDE OF THE WHALE HAS TWO LONG PARALLEL LACERATIONS, ONE PENETRATES THE SCAPULA WHICH IS SHATTERED (MULTIPLE FRACTURES, COMMINUTED FRACTURES), THE OTHER IS THROUGH BLUBBER AND MUSCLE. THERE IS NO HEMORRHAGE OR DISCOLORATION OF BLUBBER OR MUSCLE ADJACENT TO THESE LACERATIONS. THERE ARE MULTIPLE LINEAR MARKS ON THE SKIN TYPICAL OF ABRASION BY A BRAIDED LINE. NECROPSY REPORT INDICATED THAT VESSEL STRIKE WAS PRIMARY CAUSE OF DEATH (COMPARED WITH ENTANGLEMENT EVIDENCE), AS CONDITION OF ANIMAL IS GOOD (ADEQUATE BODY FAT STORES) AND STOMACH WAS FULL.	NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
27-May-18	PACIFIC	NBNC	Migratory	Pot Fishery	Unknown	GREEN AND WHITE LINE WRAPPED TIGHTLY AROUND LEFT PECTORAL FLIPPER AND PASSES THROUGH LEFT GAPE. EVIDENCE OF A WRAP AROUND THROAT (BLOATING LIKELY CAUSED ROPE TO SNAP--FRAYED ENDS VISIBLE). GREEN, ORANGE, AND WHITE LINES WRAPPED AROUND TAILSTOCK. FAINT IMPRESSIONS ACROSS VENTRAL LEFT FLUKE. TRAILING 2 CRAB POTS. ORIGINALLY SEEN WITH 2 ORANGE BUOYS (WHILE FLOATING), ONE VISIBLE IN INITIAL PHOTOS OF THE BEACH LANDING, BUT HAD BEEN REMOVED BY UNKNOWN PERSONS PRIOR TO OUR ARRIVAL ON SCENE.	NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
6-Jun-18	LINCOLN	NBNC	Feeding	Pot Fishery	Dungeness Crab	WHALE REPORTED TO HAVE AN ENTANGLEMENT LOCATED ON THE CENTER OF THE BODY AND ON THE TAIL WHILE TRAILING TWO BUOYS AND "CRAB POT GEAR". COMMERCIAL DUNGENESS CRAB GEAR WAS IDENTIFIED BY THE ROUND YELLOW TAG ON ONE BUOY BUT THE PHOTO QUALITY WAS POOR SO A NUMBER COULD NOT BE READ TO GET A FISHERMAN ID. NO GEAR REMOVED. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN. ONE POOR-QUALITY PHOTO REVIEWED BY J. CARRETTA.	NOAA Serious Injury Database; NMFS Unpublished Data	SI - L10	0.75

21-Jun-18	PORT ALBERNI	NBNC	Feeding	Pot fishery	Recreational crab fishery	DFO MM RESPONSE TEAM RESPONDED AND WERE NOT ABLE TO ATTACH A SATELLITE TAG. THERE WAS A SECOND SIGHTING CONFIRMING ROPE AND BUOY AROUND TAIL STOCK. NO LUCK RESIGHTING BY DFO RESCUE TEAM. GEAR RECORDED AS: ROP - REC CRAB	Paul Cottrell, DFO	SI - L10	0.75
28-Jun-18	GRAYS HARBOR	NBNC	Feeding	Ship Strike		EXTREMELY EMACIATED WHALE LIVE-STRANDED AND SUBSEQUENTLY DIED. LARGE AREA OF ABRASION (116X30CM) ON LEFT DORSAL AND ACROSS BACK, JUST ANTERIOR TO HUMP, WITH MISSING SKIN AND NECROSIS AT MARGINS, VISIBLE BRUISING UNDER WIDEST POINT OF MISSING SKIN. ABRAIDED SKIN ON UPPER RIGHT SIDE AT SAME LEVEL AS LARGER ABRASION. WHALE LICE ALL OVER BODY, INCLUDING DORSAL SURFACE OF FLUKE (UNUSUAL--SUSPECT UNABLE TO LIFT FLUKES PROPERLY). AT LEAST 4 SHATTERED VERTEBRAE AT SITE, APPROXIMATELY 1 MONTH'S WORTH OF HEALING IN TISSUES. AREAS OF INTERNAL INFECTION AT TRAUMA SITE. SUSPECT ANIMAL HIT BY SHIP, WITH SUBSEQUENT INFECTION, EMACIATION AND LIVE STRANDING.	NOAA Serious Injury Database; NMFS Unpublished Data	DEAD	1
9-Jul-18	CURRY	NBNC	Feeding	Pot Fishery	Unknown	BOATER VIDEO OF A GRAY WHALE TRAILING A SINGLE BUOY, WHICH ONLY APPEARS AS WHALE IS DIVING. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN. VIDEO REVIEWED BY J. CARRETTA.	NOAA Serious Injury Database; NMFS Unpublished Data	SI - L10	0.75
13-Jul-18	PRINCE RUPERT	SEAK	Feeding	Unknown entanglement	Unknown	Animal not relocated. Gear recorded as rope-float.	Paul Cottrell, DFO	SI - L10	0.75
26-Aug-18	SITKA	SEAK	Feeding	Ship Strike		A GRAY WHALE WAS STRUCK BY A 24 FT PRIVATE RECREATIONAL CABIN CRUISER AT 2.4 KNOTS. THE BOAT WAS JOLTED BY THE IMPACT, AFTER WHICH THE WHALE SUBMERGED IMMEDIATELY. THE WHALE WAS SEEN RESURFACING WITHIN A MINUTE OF THE STRIKE, BUT THERE WAS NO INDICATION OF INJURY TO THE ANIMAL. THE VESSEL DID NOT INCUR ANY DAMAGE.	NOAA Serious Injury Database; NMFS Unpublished Data	NSI - L6C	0
19-Mar-19	LOS ANGELES	CA	Migratory	Ship Strike		SELF REPORTED VESSEL COLLISION WITH JET CATALINA EXPRESS WHICH HAS A 35 KTS CRUISE SPEED AND LENGTH OF 144 FEET. WHALE MOVING SOUTH TO NORTH AND WAS SEEN JUST AHEAD OF THE PORT BOW AS VESSEL TRAVELED WEST. WHALE HIT ON RIGHT SIDE BASED ON VESSEL DIRECTION AND WHALE DIRECTION NARRATIVE. VESSEL IMMEDIATELY SLOWED AND CAPT. FELT A BUMP TOWARDS THE BACK OF THE VESSEL. CAPT. DID SEE WHALE DIVING AND TURNING DOWN JUST BEFORE COLLISION. COLLISION OCCURRED AT 33.687 AND -118.18. FRESH DEAD CARCASS FOUND ON 3/21/2019 (WCRLB-20190321ER) AT 33.73 AND -118.20 (3 MILES FROM REPORTED VESSEL STRIKE) DETERMINED TO BE SAME WHALE AS IT HAS EVIDENCE OF BEING HIT ON THE RIGHT DORSAL SURFACE, WITH THE FORCE CAUSING SIGNIFICANT HEMORRHAGING AROUND	Carretta et al. 2022	DEAD	1

						PECTORAL FLIPPERS. LARGE WOUND ACROSS THE ANIMALS BACK CONSISTENT WITH VESSEL COLLISION. VIDEO REVIEWED BY J. GREENMAN AND J. VIEZBECKE.			
24-Mar-19	LINCOLN	NBNC	Migratory	Unknown entanglement	Unknown	ENTANGLED WHALE SEEN WITH GREEN LINE THROUGH MOUTH. GEAR AMOUNT AND CONFIGURATION UNKNOWN.	Carretta et al. 2022	SI - L10	0.75
24-Mar-19	VENTURA	CA	Migratory	Ship Strike		WHALE HAD A SERIES OF DEEP LACERATIONS FROM A PROPELLER DOWN ENTIRE LENGTH OF PEDUNCLE. DEEP INTRAMUSCULAR ABCESS AT BASE OF PEDUNCLE WITH NECROTIC TISSUE AND NOTED POTENTIAL FOR SPINAL INVOLVEMENT IN INJURY. PHOTOS REVIEWED BY J. CARRETTA.	Carretta et al. 2022	DEAD	1
30-Mar-19	WEST COAST OF VANCOUVER ISLAND	NBNC	Migratory	Pot fishery	Recreational crab fishery	Animal ok, gear may have come off on own, Cottrell could not confirm entanglement certainty. Gear recorded as 'rope-rec crab'	Paul Cottrell, DFO	SI - L10	0.75
3-Apr-19	LOS ANGELES	CA	Migratory	Unknown entanglement	Unknown	LARGE SOFTBALL SIZED ABSCESS ON VENTRAL SIDE OF RIGHT FLUKE BLADE POSTERIOR TO PEDUNCLE ON MODERATELY DECOMPOSED WHALE. ABSCESS WAS VERY HARD AND DIFFICULT TO CUT THROUGH. ABSCESS WAS COVERED IN WHALE LICE, STARTED TO BLEED WHEN CUT. UPON REVIEW OF UNDERWATER VIDEO, TWISTED ROPE IS SEEN EMBEDDED IN FLUKES RIGHT NEXT TO ABSCESS. SKIN AND BLUBBER COLLECTED. ENTIRE ABSCESS COLLECTED AND SUB SAMPLED FOR HISTOLOGY.	Carretta et al. 2022	DEAD	1
10-Apr-19	SAN MATEO	CA	Migratory	Ship Strike		9.6 METER FEMALE WITH GOOD BODY CONDITION. LARGE AREA OF HEMORRHAGE ON THE RIGHT LATERAL NECK AND MUSCLES ABOVE AND BELOW THE SCAPULA. THE MUSCLE IN THIS AREA APPEARED DEEP RED AND WAS MORE DECOMPOSED THAN THE REST OF THE MUSCLE ON THE BODY. THE MUSCLE FROM THE MID THORAX DOWN WAS LIGHT REDDISH PINK AND HAD NORMAL TONE WITH LITTLE TO NO DECOMPOSITION. FINDINGS CONSISTENT WITH VESSEL STRIKE INJURY. PHOTOS REVIEWED BY J. CARRETTA.	Carretta et al. 2022	DEAD	1
13-Apr-19	CONTRA COSTA	CA	Migratory	Ship Strike		FRESH DEAD CARCASS WAS AMPUTATED POSTERIOR TO THE GENITAL SLIT AND WAS MISSING THE ENTIRE PEDUNCLE AND FLUKES. BASED ON THE MEASUREMENT OF THE REMAINING CARCASS (910 CM.) AND SIMILAR SIZE FEMALE GRAY WHALES, WE ESTIMATED THAT THE INTACT CARCASS WOULD HAVE BEEN APPROXIMATELY 12 M. IN LENGTH. SEE NECROPSY REPORT FOR MORE DETAILS.	Carretta et al. 2022	DEAD	1
14-Apr-19	ORANGE	CA	Migratory	Net fishery	Gillnet	WHALE ENTANGLED IN PINK GILLNET WITH GREEN LINES AROUND FLUKES, TRAILING 20 FEET BEHIND WHALE. MASS OF NETTING IS TIGHT AROUND FLUKES AND IS CONSTRICTING AND CUTTING INTO TRAILING EDGE OF FLUKES BASED ON PHOTOS REVIEWED BY J. CARRETTA.	Carretta et al. 2022	SI - L2	1
16-Apr-19	SAN MATEO	CA	Migratory	Ship Strike		10.9 METER FEMALE, SLIGHTLY UNDERWEIGHT. THE EPAXIAL MUSCLE ALONG THE POSTERIOR THORACIC	Carretta et al. 2022	DEAD	1

						VERTEBRAE (M. LONGISSIMUS DORSII) WAS FRIABLE AND MACERATED RELATIVE TO THE SAME MUSCLE LOCATED MORE CRANIAL ON THE THORACIC SPINE. THE CHANGE IS CONSISTENT WITH BLUNT FORCE TRAUMA AND HEMORRHAGE. AT LEAST EIGHT VERTEBRAE HAD FRACTURED DORSAL PROCESSES. ALL RIBS WERE INTACT. PHOTOS REVIEWED BY J. CARRETTA.			
20-Apr-19	ORANGE	CA	Migratory	Net fishery	CA halibut gillnet	PINK MONOFILAMENT GILLNET 8 INCH MESH SIZE CONSISTENT WITH LOCAL SET GILLNET FISHERY. BLACK FLOAT LINE (BLACK FLOATS), AND BLACK LEAD LINE WRAPPED AROUND FLUKE AND PEDUNCLE. MULTIPLE WRAPS, FOUR TO FIVE. ENTANGLEMENT DESCRIBED AS DIGGING INTO TAIL, SO A CONSTRICTING ENTANGLEMENT. LINE TRAILED DEEP. ARTICLE STATES THAT END OF TRAILING GEAR WAS 40 FT BEHIND WHALE. WHALE PARTIALLY DISENTANGLED AND FOUND DEAD ON 5/3/2020.	Carretta et al. 2022	SI - NA	1
28-Apr-19	MARIN	CA	Migratory	Ship Strike		PRELIMINARY CAUSE OF DEATH: SHIPSTRIKE- PROPELLER WOUND TO PEDUNCLE. THERE WAS ONE PARTIAL AND ONE FULL-THICKNESS LACERATION ALONG THE CAUDAL PEDUNCLE AND A PARTIAL THICKNESS LACERATION ALONG THE DORSAL ASPECT OF THE FLUKE. APPROXIMATELY 128 CM CRANIAL TO THE FLUKE ALONG THE RIGHT CAUDAL PEDUNCLE EXTENDING FROM THE DORSAL MIDLINE TO THE MID-LATERAL ASPECT IS A 45.3 CM LENGTH AND 5-14 CM WIDTH, V-SHAPED PARTIAL THICKNESS LACERATION WITH RAGGED, IRREGULAR MARGINS AND EXPOSURE OF THE UNDERLYING BRIGHT RED DERMIS. ON CUT SURFACE, THE SUPERFICIAL BLUBBER UNDERLYING THE EXPOSED DERMIS HAS A WELL DEMARCATED, THIN, BRIGHT RED BAND (HEMORRHAGE). THE CAUDAL PEDUNCLE APPROXIMATELY 15 CM CRANIAL TO THE FLUKE IS ALMOST COMPLETELY TRANSECTED THROUGH THE SKIN, BLUBBER, VASCULATURE, TENDONS, AND THE CAUDAL VERTEBRAL BODY AND CONNECTED TO THE BODY BY A THICK BAND OF SKIN, BLUBBER, AND TENDONS ALONG THE RIGHT DORSAL AND LATERAL ASPECT. WOUND MARGINS ARE SHARP AND WELL-DEMARCATED. THE VERTEBRAL BONE ALONG THE CRANIAL ASPECT OF THE WOUND IS FRACTURED INTO NUMEROUS SMALL FRAGMENTS AND BONE ALONG THE CAUDAL ASPECT IS LARGELY INTACT WITH SEVERAL SMALL FRAGMENTS ALONG THE DORSAL AND LATERAL MARGINS OF THE BONE. THE CENTER OF THE VERTEBRAL BODY IS MOTTLED DARK RED TO PURPLE. ALONG THE DORSAL ASPECT OF THE FLUKE EXTENDING FROM THE LEFT LATERAL CRANIAL MARGIN DIAGONALLY TOWARDS THE RIGHT LATERAL CAUDAL MARGIN IS A 1.35 M, PARTIAL THICKNESS UP TO 3 CM DEEP	Carretta et al. 2022	DEAD	1

						LACERATION WITH EXPOSURE OF THE UNDERLYING BLUBBER AND CONNECTIVE TISSUE. THE RIGHT-SIDED, POST OCCIPITAL SUBCUTIS IS MARKEDLY EXPANDED WITH DARK RED, GELATINOUS MATERIAL (HEMORRHAGE). SKELETAL MUSCLE IS SIMILARLY HEMORRHAGIC. THE SUPERFICIAL BLUBBER IMMEDIATELY CAUDAL TO THIS IS BRIGHT RED (HEMORRHAGE).			
4-May-19	SAN LUIS OBISPO	CA	Migratory	Other	Unknown	WHALE DRAGGING A 2 FT X 2 FT STYROFOAM CUBE OR BUOY BEHIND BLOWHOLE. UNKNOWN AMOUNT OF LINE AND GEAR CONFIGURATION. NO PHOTOS.	Carretta et al. 2022	SI - L10	0.75
6-May-19	SAN FRANCISCO	CA	Migratory	Ship Strike		THE PRELIMINARY CAUSE OF DEATH IS SEVERE ACUTE BLUNT TRAUMA AFFECTING THE HEAD AND NECK. POST-OCCIPITAL AND THORACIC EPAXIAL AND HYPAXIAL SKELETAL MUSCLES, PREDOMINANTLY ALONG THE RIGHT SIDE AND TO A LESSER DEGREE ON THE LEFT, ARE MARKEDLY EXPANDED WITH DARK RED GELATINOUS MATERIAL (HEMORRHAGE). THE OVERLYING DEEP BLUBBER AND SUBCUTIS ARE SIMILARLY HEMORRHAGIC AND THE SUPERFICIAL BLUBBER HAS A THICK LINEAR BAND OF HEMORRHAGE. ON CUT SURFACE, SKELETAL MUSCLE AND SUBCUTIS OOZES A MODERATE VOLUME OF RED-TINGED OPAQUE FLUID. THE TIPS OF THE DORSAL SPINOUS PROCESSES ON THE ATLAS (C2) ARE ABSENT AND THE EXPOSED ENDOSTEUM IS ROUGHENED AND IRREGULAR (AVULSION FRACTURE, PRESUMPTIVE). A LARGE RECTANGULAR PORTION OF THE PERIOSTEUM ALONG THE RIGHT NUCHAL CREST IS ELEVATED FROM THE UNDERLYING BONE AND THE EXPOSED SURFACE IS SIMILARLY ROUGH AND IRREGULAR (AVULSION FRACTURE, PRESUMPTIVE). A SMALL PORTION OF THE PERIOSTEUM ALONG THE DORSAL AND LATERAL ASPECTS OF THE RIGHT OCCIPITAL CONDYLE ARE SIMILARLY AVULSED. THE RIGHT SCAPULA HUMERAL AND RIGHT SQUAMOMANDIBULAR JOINTS WERE UNREMARKABLE.	Carretta et al. 2022	DEAD	1
3-Jun-19	SNOHOMISH	PS	Feeding	Other	Mooring buoy	GRAY WHALE BRIEFLY ENTANGLED IN MOORING BUOY BEFORE SELF-RELEASING. WHALE SEEN GEAR-FREE AFTER EVENT.	Carretta et al. 2022	NSI - L3	0
12-Jun-19	CURRY	NBNC	Feeding	Pot fishery	Dungeness crab pot fishery	DURING A SEABIRD SURVEY, HELICOPTER TEAM DETECTED DEAD ENTANGLED WHALE WITH MULTIPLE SETS OF DUNGENESS GEAR. STATE FISHERY NOT CONFIRMED.	Carretta et al. 2022	DEAD	1
29-Jul-19	HAIDA GWAIL	SEAK	Feeding	Unknown entanglement	Unknown	Cottrell talked to MOP. Animal not relocated. Gear recorded as 'rope-buoy'	Paul Cottrell, DFO	SI - L10	0.75
6-Sep-19	LINCOLN	NBNC	Feeding	Ship Strike		WHALE TOWING LINE FROM DAMAGED LEFT FLUKE BLADE THAT HAD DEEP PROPELLER INJURY, AS EVIDENCED BY REGULAR SPACING AND CHARACTER OF WOUNDS. LINE WAS CAUGHT IN THE SCAR OF THE	Carretta et al. 2022	SI - L5A	1

						PROPELLER WOUND. CYAMIDS NOTED IN WOUND. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN. OBSERVER WAS AN OSU WHALE RESEARCHER.			
13-Sep-19	LINCOLN	NBNC	Feeding	Unknown entanglement	Unknown	MULTIPLE WRAPS ON FLUKES, TRAILING LINE 40 FEET BEHIND ANIMAL, WHERE IT SANK BELOW SURFACE. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN.	Carretta et al. 2022	SI - L10	0.75
12-Jan-20	VENTURA	CA	Migratory	Unknown entanglement	Unknown	APPROXIMATELY 75 FEET OF LINE TRAILING FROM TAIL AREA ON WHALE. AT THE END OF THE LINE IS A SINGLE LIGHT GREEN OR YELLOWISH GREEN BUOY. FULL GEAR CONFIGURATION AND AMOUNT UNKNOWN.	Carretta et al. 2022	SI - L10	0.75
20-Jan-20	SAN DIEGO	CA	Migratory	Net fishery	Gillnet	ROPE IN FRONT OF BLOWHOLE AND WRAPPED AROUND THE ROSTRUM AND TRAILING DOWNWARD; BLUEISH/PURPLE MONOFILAMENT NETTING DRAPPED OVER THE BLOWHOLE, WRAPPED ON ITSELF INTO A "CORD" TRAILING OVER BACK. GEAR CONFIGURATION AND AMOUNT UNKNOWN.	Carretta et al. 2022	SI - L10	0.75
31-Jan-20	Laguna Ojo de Liebre	M	Breeding	Pot fishery	Pot Gear (Lobster)	50m of line and 4 buoys; successfully disentangled	ESSA / CONANP	NSI - Released	0
24-Apr-20	CLALLAM	NBNC	Migratory	Pot fishery	Dungeness crab pot fishery	FREE-SWIMMING GRAY WHALE WITH CLOSED BRIDLE THROUGH MOUTH. OTHER END OF GEAR TRAILING WITH BUOYS AND DESCENDING TO DEPTH. LINE RUNS THROUGH MOUTH; OUT OF LEFT MOUTH ACROSS THE HEAD TO MEET UP WITH THE LINE COMING FROM THE RIGHT MOUTH IN A MULTIPLE TWISTS. THE LINE FROM THE LEFT MOUTH CONTINUES AFTER THE TWISTS TOWARDS THE SEAFLOOR / TRAP. THE LINE FROM THE RIGHT MOUTH CONTINUES PAST THE TWISTS TO THE BUOYS NEAR THE PEDUNCLE. POT LINE - 10 FATHOMS OF 3/8THS SINKING LINE FROM BUOY, RUNNING TO 2 FMS OF 7/16TH FLOATING LINE TO POT HAD BLUE SQUARE WDFW TAG FROM 2019-20 SEASON (300 POT LIMIT FROM COASTAL WA); 10 FATHOMS OF 3/8THS SINKING LINE FROM BUOY. RESCUE TEAM WAS ABLE TO CUT GEAR FREE / FULL RELEASE.	Carretta et al. 2022	SI - L3	0
10-May-20	PACIFIC	NBNC	Migratory	Unknown entanglement	Unknown	MODERATELY DECOMPOSED AND IN POOR NUTRITIONAL CONDITION WITH HEALING ENTANGLEMENT INJURY AT TIP OF LOWER JAW. ONE SET OF PHOTOS POSTED ON FACEBOOK ON MAY 10 SHOWED A LOOSE ENTANGLEMENT ON LEFT PECTORAL FLIPPER, BUT THE GEAR WAS GONE BY MORNING OF MAY 11. WHALE ALSO SHOWED EVIDENCE OF PRIOR ENTANGLEMENT.	Carretta et al. 2022	DEAD	1
31-May-20	PACIFIC	NBNC	Migratory	Ship Strike		BLUNT FORCE TRAUMA TO LEFT SIDE ROSTRUM. HEMORRHAGE, EDEMA, HEMATOMA, FORCE STRONG ENOUGH TO CAUSE LATITUDINAL CRACKS IN BALEEN AND BEND THE FRINGE OUTWARD OVER THE LOWER LIP. NO BROKEN BONES SEEN. AT LEAST CONTRIBUTED TO THE MORTALITY. HEALED ENTANGLEMENT WOUNDS ON LEADING EDGE OF FLUKES AND ON TAILSTOCK--NOT RELATED TO MORTALITY. INDENT ACROSS TONGUE (HEALED), APPROX 1/3 POSTERIOR TO THE TIP,	Carretta et al. 2022	DEAD	1

						APPEARS TO HAVE BEEN WRAPPED/CONSTRICTED AT SOME POINT--NOT RELATED TO MORTALITY. VESSEL SIZE AND SPEED UNKNOWN.			
5-Jul-20	GRAYS HARBOR	NBNC	Feeding	Ship Strike		BLUNT FORCE TRAUMA TO TOP OF HEAD, PREMORTEM. HEMORRHAGE AND EDEMA AT TOP OF HEAD. BONE NEAR EAR CANAL CHIPPED, EVIDENCE OF DRAINING HEMORRHAGE IN AREA. TINY BONE FRAGMENTS COULD BE FELT IN EDEMATOUS BONE TISSUE. VESSEL SIZE AND SPEED UNKNOWN.	Carretta et al. 2022	DEAD	1
6-Aug-20	CLALLAM	NBNC	Feeding	Net fishery	Salmon gillnet	TRIBAL SALMON GILLNET; NET AND ROPE THIS WHALE WAS REPORTED BY FISHERMAN (TRIBAL SALMON GILLNET FISHERY) THAT HAD CAUGHT THE WHALE IN HIS NET. IT WAS DEAD ON ARRIVAL AT 9:40 AM AFTER HAVING DROWNED IN THE NET. IT IS NOT KNOWN WHEN THE WHALE WAS ENTANGLED, OR WHEN IT DIED, BUT IT WAS CLEAR THAT THE WHALE HAD VERY LITTLE DECOMPOSITION SUGGESTING THAT IT HAD NOT BEEN DEAD IN THE NET FOR TOO LONG. CARCASS WAS BROUGHT ASHORE FOR A FULL EXAMINATION DUE TO THE ONGOING GRAY WHALE UME INVESTIGATION AND THE FRESH CONDITION OF THE ANIMAL. PRETTY CLEAR WHERE THE LARGE ROPES OF NET HAD INTERACTED WITH THE WHALE - BUT IF ROPE HAD NOT BEEN SEEN AT THAT LOCATION IT WOULD HAVE BEEN HARD TO PICK OUT AS COMPARED TO NORMAL SUITE OF SCARS AND SCRATCHES ON A GRAY WHALES. WE DID NOT SEE ANY OF THE CHARACTERISTIC HASH MARKING CAUSED BY A NET.	Carretta et al. 2022	DEAD	1
7-Aug-20	MENDOCINO	CA	Feeding	Unknown entanglement	Maybe gillnet	BLUE STEEL LINE WITH 2 BUOYS (1/2 WHITE/ 1/2 ORANGE) WRAPPED AROUND HEAD AND FLIPPER. WE BELIEVE IT COULD BE WRAPPED AROUND THE LEFT PECTORAL AND THERE IS SOME SMALL REMNANTS OF GILLNET. UNAUTHORIZED RP SAID THEY GRABBED THE LINE VERY CLOSE TO THE WHALE AND WHEN THE WHALE FELT THEM ON THE LINE IT SPOOKED AND DOVE AND THEY DIDN'T SEE IT AGAIN. FINAL OUTCOME AND GEAR CONFIGURATION AND AMOUNT UNKNOWN.	Carretta et al. 2022	SI - L10	0.75
19-Aug-20	MONTEREY	CA	Feeding	Unknown entanglement	Maybe gillnet	ORANGE BUOY WITH MARINE GROWTH ATTACHED TO LEFT SIDE OF WHALE, ATTACHMENT POINT ASSUMED TO BE PECTORAL FLIPPER BASED ON PHOTO. REPORTING PARTY STATES THERE WAS A SMALL AMOUNT OF BLUE GILLNET ATTACHED TO THE BUOY, BUT IT IS NOT VISIBLE IN PHOTOS. GEAR AMOUNT AND CONFIGURATION UNKNOWN. WHALE APPEARS HEALTHY AND IS FREE-SWIMMING. ASSUMED TO BE SAME UNIDENTIFIED WHALE INITIALLY SEEN OFF GUALALA IN MENDOCINO ON 8/7 AND IDENTIFIED AS A GRAY WHALE IN SAME AREA ON 8/13 WITH SIMILAR GEAR AND PLACEMENT.	Carretta et al. 2022	SI - L10	0.75

18-Nov-20	ORANGE	CA	Feeding	Unknown entanglement	Unknown	CONFIRMED ENTANGLED FROM UNMANNED AERIAL VEHICLE PHOTOS: BUNDLE OF LINE AT BASE OF PEDUNCLE AND MID FLUKE. CONSTRICTING LINE AT FLUKE INSERTION. LONG SINGLE LINE TRAILING THE WHALE THAT MAY EXCEED LENGTH OF WHALE. FULL GEAR CONFIGURATION AND AMOUNT UNKNOWN.	Carretta et al. 2022	SI - L2	1
7-Feb-21	Laguna San Ignacio	M	Breeding	Pot fishery	Pot Gear (Lobster)	60m of lines tight around the body and peduncle;6 buoys and 2 lobster traps; successfully disentangled	PRIMMA	NSI - Released	0
8-Mar-21	GRAYS HARBOR	NBNC	Migratory	Unknown entanglement	Unknown	STRANDED DEAD WITH PREVIOUS ENTANGLEMENT SCARS. POOR PHYSICAL CONDITION, WITH VISIBLE SCAPULAE, VERTEBRAE, AND OBVIOUS LOSS OF NUCHAL FAT (PEANUT HEAD), SOME AREAS OF PROBABLE DERMATITIS, MILD-MODERATE CYAMIDS (MOSTLY AROUND BARNACLES, GENITAL/ANAL SLIT, BLOWHOLE, AND INJURIES). SOME OF THE OUTERMOST LAYER OF DERMIS ABRAIDED ON THE RIGHT SIDE OF THE HEAD. PARTIALLY HEALED ENTANGLEMENT SCARS ON TAILSTOCK/FLUKES. PARTIALLY HEALED LACERATION ON RIGHT PEDUNCLE AT FLUKE INSERTION, IMPRESSION DOWN VENTRAL SURFACE OF FLUKE BETWEEN THAT LACERATION TO A CUT INTO THE TRAILING EDGE OF THE RIGHT FLUKE. IMPRESSION ON LEFT SIDE OF PEDUNCLE AND ACROSS VENTRAL PEDUNCLE, AT THE INSERTION OF THE FLUKE. CONSISTENT WITH WRAPPING. PARTIALLY HEALED CUTS / NOTCHES INTO TRAILING EDGE OF BOTH FLUKES. PHOTOS SHOW GAPING WOUND ON LEADING EDGE OF LEFT FLUKE / PEDUNCLE, FILLED WITH CYAMIDS. INJURIES ARE CONSISTENT WITH A CONSTRICTING ENTANGLEMENT. ENTANGLEMENT LIKELY CONTRIBUTED TO POOR CONDITION OF ANIMAL AND ULTIMATELY, STRANDING.	Carretta et al. 2023	DEAD	1
25-Mar-21	KITSAP	PS	Migratory	Other	Entrapment under pier	ENTRAPMENT UNDER PIER, SUBSEQUENT DROWNING. INTERNAL EVIDENCE THAT ENTRAPMENT WAS PREMORTEM AND THE ANIMAL LIKELY DRY DROWNED. DEEP (6CM) HEALED LACERATION ON L LOWER JAW WITH POSSIBLE BENDING OF BALEEN AND FAINT HEALED ABRASION L UPPER JAW, CONSISTENT WITH PREVIOUS ROPE ENTANGLEMENT. HEALED ENTANGLEMENT SCARRING AT THE INSERTION OF THE FLUKE ON L SIDE.	Carretta et al. 2023	DEAD	1
2-Apr-21	SAN MATEO	CA	Migratory	Ship Strike		SUSPECTED SHIP STRIKE. BRUISING IN THE MUSCLE NEAR THE BACK OF THE SKULL. COPIOUS AMOUNTS OF BLOODY LIQUID AND FRIABLE TISSUES FOUND IN RIGHT TEMPORALIS AREA PARTIALLY. RIBS ON RIGHT SIDE WERE INTACT AND FREE OF BRUISING AND FRACTURES. A DEEP GASH WAS NOTED IN THE RIGHT MAXILLA, NEAR THE END OF THE ROSTRUM.	Carretta et al. 2023	DEAD	1
8-Apr-21	MARIN	CA	Migratory	Ship Strike		THE CARCASS WAS IN FRESH STATE OF DECOMPOSITION ALLOWING US TO FULLY OBSERVE	Carretta et al. 2023	DEAD	1

						AND APPRECIATE THE EXTENSIVE HEMORRHAGE ON THE SKULL AND NECK REGION. THE MARKED AREAS OF HEMORRHAGE ON LUNGS IS SUGGESTIVE OF BLUNT FORCE TRAUMA BUT WILL BE EVALUATED FURTHER ON HISTOLOGY.			
9-Apr-21	HUMBOLDT	NBNC	Migratory	Unknown entanglement	Unknown	ENTANGLED GRAY WHALE. THE ENTANGLING MATERIAL WAS REPORTED AS ROPE AND BUOYS ATTACHED TO THE HEAD AND MOUTH. AMOUNT AND CONFIGURATION OF GEAR UNKNOWN.	Carretta et al. 2023	SI - L10	0.75
14-Apr-21	SAN FRANCISCO	CA	Migratory	Unknown entanglement	Unknown	WHALE TRAILING LINE AND A SINGLE BUOY. GEAR AMOUNT AND CONFIGURATION UNKNOWN.	Carretta et al. 2023	SI - L10	0.75
19-Apr-21	ORANGE	CA	Migratory	Unknown entanglement	Unknown	CALF ENTANGLED IN LINE WRAPPED AROUND MOUTH, TOP JAW, AND PECTORAL FIN, TRAILING OVER AND BEHIND WHALE WITH A SINGLE BUOY. REPORT STATES THAT A PARTIAL DISENTANGLEMENT RESPONSE WAS MADE, BUT NO DETAILS ON REMAINING GEAR OR CONFIGURATION.	Carretta et al. 2023	SI - L10	0.75
27-Apr-21	PACIFIC	NBNC	Migratory	Ship Strike		A SHATTERED LEFT ROSTRUM; A SUBSTANTIAL AMOUNT OF POOLED BLOODY FLUID ALONG WITH HEMORRHAGE OF THE LEFT MANDIBULAR AREA; HEMORRHAGE AND EDEMA OF THE LEFT FLIPPER; HEMORRHAGE OF VARIOUS AREAS OF THE BODY, ESPECIALLY THE DORSAL CRANIAL BACK; AND LINEAR-PATTERNED CUTS OR GOUGES ALONG THE FIRST DORSAL "KNUCKLE" WITH NO UNDERLYING ASSOCIATED TISSUE CHANGES. INJURIES CONSISTENT WITH VESSEL STRIKE.	Carretta et al. 2023	DEAD	1
12-May-21	MARIN	CA	Migratory	Ship Strike		NECROPSY SHOWED EXTENSIVE HEMORRHAGING AND FRACTURES. GENERALIZED HEMORRHAGE IN THE LEFT INTERCOSTAL, CRANIAL T1-T2 INTERCOSTAL, SHOULDER, EPAXIAL, AND C1-T2. CERVICAL AND THORACIC VERTEBRAE AS WELL AS LEFT RIBS EXAMINED. T5-T11 VERTEBRAE WERE FRACTURED ON THE DORSAL PROCESSES. FINDINGS CONSISTENT WITH BLUNT FORCE TRAUMA.	Carretta et al. 2023	DEAD	1
28-May-21	MARIN	CA	Migratory	Ship Strike		BLUNT FORCE TRAUMA TO THE SPINE FROM THE BACK OF THE HEAD THROUGH TO THE LOWER END OF THE THORACIC SPINE. MULTIPLE PIECES OF BONE RETRIEVED FROM DAMAGED TISSUE. SPINAL COLUMN EXAMINED DUE TO BRUISING NOTED ON DORSUM MULTIPLE BONE FRAGMENTS RETRIEVED FROM SPINAL COLUMN IN THE LOWER THORACIC VERTS HEMORRHAGE AND TISSUE DEGRADATION. INITIALLY STRANDED FRESH DEAD BELOW POINT BONITA ON MAY 28, 2021 AND WAS INACCESSIBLE UNTIL THE WHALE DRIFTED NORTH TO RODEO BEACH, WHERE IT UNDERWENT A PARTIAL NECROPSY TO EXAMINE THE SPINAL COLUMN. AREA OF TRAUMA SPANS 2/3 OF THE WHALES SPINAL COLUMN AND BROKEN BONES WERE RETRIEVED. SOME PROP MARKS NOTED ON LEFT RIB AREA BUT ARE THOUGHT TO BE POST-MORTEM.	Carretta et al. 2023	DEAD	1

8-Jun-21	CLALLAM	NBNC	Feeding	Unknown entanglement	Possible pot fishery	GRAY WHALE WITH ROPE COMING OUT OF MOUTH AND BUNDLE OF LINE ON RIGHT SIDE OF HEAD AS IT EXITS MOUTH. LINE TRAILING 50-60 FT TO BUOYS. APPARENT SQUARE TAG ON BUOY NEAR PECTORAL FIN ATTACHMENT POINT. GOOD BODY CONDITION. FULL AMOUNT OF GEAR AND CONFIGURATION UNKNOWN.	Carretta et al. 2023	SI - L10	0.75
20-Jul-21	KENAI PENINSULA	SEAK	Feeding	Net fishery	Salmon gillnet	ENTANGLED IN COMMERCIAL SALMON GILLNET. RIGHT PECTORAL WRAPPED IN GILLNET. MULTIPLE WRAPS OF PEDUNCLE. ENTANGLEMENT INVOLVED CORKLINE AND LEADLINE. PARTIAL DISENTANGLEMENT BY FISHERMEN. WHALE REPORTEDLY SWAM AWAY WITH LITTLE NETTING REMAINING ON PEDUNCLE. REPORTED AS 'VERY LITTLE TRAILING GEAR'. FINAL GEAR CONFIGURATION AND AMOUNT UNKNOWN.	Carretta et al. 2023	SI - L10	0.75
28-Jul-21	WEST COAST OF VANCOUVER ISLAND	NBNC	Feeding	Net fishery	Gillnet	DFO MMRP responded and could not relocate. Animal was then spotted in Esperanza inlet and MMRP team successfully disentangled grey whale. Gear recorded as 'net-gillnet'	Paul Cottrell, DFO	NSI - Released	0
4-Nov-21	KITSAP	PS	Feeding	Ship Strike		KITSAP FAST FERRY REPORT. WHALE DETECTED AND AVOIDANCE MANOUVER INITIATED. OBSERVERS FELT A SOFT THUD, NO ADDITIONAL VIBRATION OR MOVEMENTS OCCURRED. WHALE STRUCK MIDBODY AND NEAR/BEHIND DORSAL HUMP. THE VESSEL DID NOT RECEIVE WRAS REPORTS, RADIO ADVISORY, OR EARLIER SIGHTINGS. AFTER THE STRIKE, THE WHALE ROLLED ON ITS SIDE, SLAPPED PECTORAL FIN, THEN DOVE, SLAPPED TAIL, AND THEN WAS SEEN SWIMMING NORTH. NOT OBSERVED AGAIN. THE CREW DID NOT SEE ANY VISIBLE EVIDENCE OF INJURY. VESSEL SIZE ASSUMED > 65 FT, VESSEL SPEED UNKNOWN.	Carretta et al. 2023	SI - L7A	0.56