

Entanglements in Fishing Gear and Strandings reported to the Whale Release and Strandings Group in Newfoundland and Labrador and a summary of the Whale Release and Strandings Program during 2019

A Report to the Department of Fisheries and Oceans, Canada –
Newfoundland and Labrador Region

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To the fishers of the Newfoundland Region who have continued to support this program throughout its long history, the success of our work releasing entrapped animals would not be possible without your continued support and participation.

Whale Release and Strandings Group

The Whale Release and Strandings Group (Tangly Whales, Inc.) is a non-profit environmental organization responsible for the disentanglement and response to strandings of marine animals in Newfoundland and Labrador since 2000 and incorporated in July 2002. The organization has a board of directors.

The Mission statement for the Whale Release and Strandings Group is:

- To conserve biodiversity
- To release whales from fishing gear
- To attempt to save fishing gear to the extent possible during a disentanglement
- To coordinate strandings on marine animals
- To conduct research work on marine animals
- To conduct all other work on marine animals as seen fit.

From 1978 through 2019 assistance has been offered to fishers in the Newfoundland Region who incidentally have large whales, leatherback sea turtles and basking sharks entangled in their fishing gear and for live stranded marine animals. This service has been provided with cooperation from Fisheries and Oceans, Canada.

Summary reports

During this time-period (1978-2019) information from fishers regarding whale interactions has been recorded and monitored. Included are the incidences of entrapments, strandings and sightings of leatherback sea turtles, sharks and 20 different species of cetaceans have that been recorded in continuous reports and summaries from 1978 - 2019.

This report represents the forty second (42nd) of such reports in a similar format produced by the Whale Research Group and the Whale Release and Strandings Group. The purpose of these reports is to summarize yearly activities of important events such as entrapments/entanglements/strandings of animals at risk and under study, research and/or educational studies undertaken. These reports are catalogued at the Memorial University Library and Fisheries and Oceans Canada and with the Whale Release and Strandings Group. One of the benefits of these reports is quick access to changes in entrapments and entanglements in the Newfoundland Region related to changes in fishing gear and distributions of large marine animals as well as the various strandings, ice-entrapments and strandings and sightings of rare animals and animals under study.

Introduction

The program, which has been run by the Whale Release and Strandings Group (WRS) from 2001-2019, plus providing during 2000 a one-year mentorship with the Canadian Coast Guard, uses methods of which the most important is working with stakeholders (harvesters) for disentangling of large whales from fishing gear, which was pioneered by

Dr. Jon Lien (Lien 1980) and with a few modifications these methods remain those of choice today.

The disentanglement program in use today was designed and developed for the highly rural nature of over 800 fishing communities spread over the 17,000 km coastline of Newfoundland and Labrador (NL). The disentanglement assistance program has benefited fishers, whales, leatherback sea turtles and the people of Canada. It provides assistance to often financially stretched fishers, saving them thousands of dollars in what would be lost fishing gear and downtime if they did not have skilled support in releasing a large whale entrapped in their gear. WRS releases large and often endangered whales, leatherback sea turtles and basking shark from fishing gear and allows them to continue their life processes. We have the largest feeding population of humpbacks in the northwest Atlantic, with about 5,000 individuals visiting NL waters during spring, summer and fall. These whales are the basis for a large tourism industry in the region.

The program also responds to all reported live and dead cetaceans and sea turtles, as well as pack ice entrapments.

The purpose of the assistance is: (1) to assist fishers in releasing whales from fishing gear, thus decreasing downtime and damage to fishing gear. The length of time a large marine animal is entrapped in fishing gear is directly correlated to greater gear damage and loss of income due to the gear not fishing properly or at all (Lien 1983), (2) to release entrapped marine animals as quickly and safely as possible to allow them to continue their life processes, such as feeding, migrating, mating, rearing their young, (3) to communicate with fishers and communities about marine animals, including species at risk, habitat protection, and (4) to add to the scientific knowledge of cetaceans, leatherback sea turtles and sharks that inhabit Newfoundland and Labrador waters.

Fish harvesters have come to realize that calling a government sponsored program offers them a safer, faster and more efficient alternative to dealing with a gear-entrapped animal than attempting a release on their own. Fishers and untrained persons who take whales out of gear often leave large amounts of fishing gear on the animal perhaps because they do not or cannot look underwater to see all the gear that is on the entrapped animal. Whales caught in crab gear that are cut loose by fishers and other untrained persons are often released with vast amounts of rope and pots still attached (Ledwell and Huntington 2001, 2002, 2006). This provides more opportunity for whale re-entrapment and more gear damage and allows the animal to move from the vicinity in which it was entrapped and be difficult to relocate, and/or difficult to catch to remove the gear still on it. A timely response by experienced personnel results in the removal of most if not all gear from the animals, less gear damage and fishing downtime, particularly important to the economically marginalized inshore fishers.

From 1979 to 2019 one thousand one hundred and three (1103) humpback whales (*Megaptera novaeangliae*), one hundred and sixty-four (164) minke whales (*Balaenoptera acutorostrata*), fifteen (15) fin whales (*Balaenoptera physalus*), two right whales (*Eubalaena glacialis*), two (2) killer whales (*Orcinus orca*), one (1) bowhead

whale (*Balaena mysticetus*) and eighty-eight (88) unknown large whales were reported entrapped or entangled in fishing gear in Newfoundland and Labrador.

Eighty-two (82) leatherback turtles (*Dermochelys coriacea*) have been reported entangled in fishing gear in this region with a mortality of 25%. There have been fifteen (15) reported leatherback turtle strandings with 11 of those being dead animals reported in the Newfoundland region. Two (2) live leatherbacks that had stranded were rescued and returned to sea by members of the WRS group. A loggerhead turtle (*Caretta caretta*) was collected cold stunned in Hermitage harbour and returned to ocean from the Harbour Breton harbour after it was rewarmed (Ledwell and Huntington 2007).

Entrapments, strandings and sightings of other cetaceans either unusual to the area or under study or animals free swimming but in poor health and marine animals such as sea turtles, sharks, walrus have also been documented (Lien 1994; Ledwell and Huntington 2000-2012; Ledwell, Huntington and Sacrey 2013-2015, Ledwell and Huntington 2016, Ledwell, Huntington and Enserink 2017, Ledwell, Huntington and Ledwell 2018).

From 1992 to 2000 funding for a marine animal release program was varied and at times non-existent.

The most common types of fishing gear associated with entanglements in this region currently includes gillnets (cod, herring, mackerel, lumpfish, flounder, monk, skate and turbot), snow crab pots, whelk pots, toad crab pots, box traps (caplin, cod, herring, mackerel and squid), unspecified and illegal gillnets, ropes/buoys and moorings. In other words, most types of fishing gear have the potential to incidentally catch whales and they do. In recent years fishing effort in Newfoundland and Labrador has shifted offshore. This shift in gear has led to an increase in the number of offshore entrapments reported and offshore entanglements have primarily involved snow crab and whelk pot gear.

Methods

Whale, leatherback sea turtle and basking shark entanglements in fishing gear and strandings and sightings of marine animals were reported to the Whale Release and Strandings Program in 2019 by calling an advertised toll-free number (1-888-895-3003) which can be accessed 24 hours a day seven-days a week year around. A trained release team responds by providing suitable, safe advice or sending expert personnel to the site for needed assistance. The trained crew is equipped and ready to deploy immediately with an inflatable zodiac and necessary specialized tools for disentanglement of whales, leatherback sea turtles and basking sharks. The objective of each disentanglement is the safe, gear free release of the whale or other marine animals from the fishing gear and minimal or no damage to the fishing gear involved in the entanglement. The disentanglement crew also responds to whale and leatherback sea turtle strandings. Calls concerning entanglements, strandings and dead floating animals were also forwarded to the group by DFO Conservation Officers, Coast Guard Centers, fishers, Royal Canadian Mounted Police (RCMP), Crime Stoppers and the general public. Fisheries and Oceans Canada funded the program in 2019. Additional funding was provided through Canadian

Wildlife Federation (CWF), Canada Summer Jobs- Service Canada and the Town of Portugal Cove-St. Philip's.

Results and Discussion

Results of the Entrapment Assistance Program from previous years have been summarized in annual reports to Fisheries and Oceans and/or the Newfoundland and Labrador Department of Fisheries (Lien 1979; Lien 1980; Lien and Aldrich 1982; Lien et al. 1982; 1983; 1984; 1985; 1986; 1987; 1988; 1989; Lien 1990; 1991; 1992; 1993; 1994; 1995; (1996; 1997, 1998, 1999 personal papers Lien); Ledwell, Huntington and Lien 2000; Ledwell and Huntington 2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008; 2009; Ledwell, Huntington and Kelly 2010; Ledwell and Huntington 2011; 2012; Ledwell, Huntington and Sacrey 2013; 2014; 2015. Ledwell and Huntington 2016; Ledwell, Huntington and Enserink 2017, Ledwell, Huntington and Ledwell 2018).

Humpback Whales

Five (5) humpback whales were confirmed entangled in fishing gear in 2019 (Table 1). Every year there are reports of entanglements from a variety of sources that are sometimes difficult to verify and are also included in the table. We know when a fisher reports an entrapment/entanglement that it's a sound report. Reports from tourists and hikers and the general public are at times difficult to verify. We include them in our reports as possible entanglements and they very well could be but for the sake of authenticity we do not count them in the final records. We get so many reports throughout the year of entangled whales that are false because we have so many humpbacks on the coasts that it consumes a lot of our time verifying and disseminating them. They are not included in these reports.

19th May

Whale anchored in grapnel and 5/8 in rope holding a lobster holding cage close to the wharf. WRS responded at 1715. The fisherman called while we were on way telling us that the whale had busted free towing some rope and was gone out the harbour into a strong northeaster.

30th May

Scrabster, Thurso Bay Scotland. WRS was asked for advice by a strandings group in Scotland about a whale that had drifted ashore dead with a body wrap of rope locking the side fins with adjacent necrotic flesh. There was a buoy attached with a Nova Scotia fisherman's phone number on it. We contacted the fisherman who informed us that the rope and balloon had gone missing in January 2019 from his lobster trawl. Because there was very little to no growth on the rope or balloon and the time of 5 months, we believe the whale was caught in this the Lunenburg gear.

14th June

Whale entangled in fleet of 2 gillnets. WRS arrived at area to find whale had broken free of the nets and was gone from area.

3rd – 5th July

WRS and DFO towed the entrapment boat using a DFO RHIB to Fermuese. Response was called off while off of Renew's due to rough seas. A DFO surveillance plane was directed to the area on the 3rd. We geared up to go back to the area with the fisherman on the 4th but waited for word from the surveillance plane. They were unable to find the animal. At 0830 on the morning of the 5th July the fisherman called to tell us the whale was still there. We put our inflatable aboard a DFO RHIB out of Bay Bulls.

The whale had towed 3 strings of the whelk gear together which was through its mouth and up around the head leading down into a jumble of ropes. The animal had a lot of mobility staying at the surface for very brief periods and surfacing in unpredictable areas. We cut the rope at the jaw line and the rope slipped off from its head due to the string of the gear and it was out and gone gear free. We then assisted the fishermen to try and retrieve the gear but were unsuccessful due to the amount of gear that seemed snagged on something. The fishermen retried unsuccessfully the next week to retrieve the buoyed of gear. A coast guard vessel deployed to lift the gear in October was also unsuccessful.

16th – 18th July

We believe these reports to be the same animal. Weather conditions were perfect for the searches and we also conducted land searches from the cliffs. It could have gotten in to one of the coves as there were many humpbacks feeding in the area during this time, many of them close to shore. The reports from the 16th and 17th were solid as fishing vessels reported them and the report on 18th although from tourists can be skeptical because of the similarity of the report on the gear configuration and the time frame, we also believe this to be authentic.

18th July

Reviewing the image, we are not sure there is rope there but we think substantial scarring and healing. The images look very much like an animal we released on 6th July 2006 in the Downing Basin of the Grand Banks whereby we removed rope from over the blowhole that had embedded to the bone. We didn't think this animal would survive the disentanglement. The injuries looked the same, but it was not positively identified.

Right whale

22nd – 27th July

WRS was requested by DFO NL and Gulf to attempt to intercept heavily entangled satellite tagged NARW#3125 as it tracked out of the Gulf of St. Lawrence on a southward trajectory. As it was heading east towards NL the WRS team drove across the island in hopes of an attempt to intercept and disentangle it. The whale changed course heading towards NS and the team was again requested to try and intercept it there. WRS

team took the Cabot Strait Ferry on the morning of the 22nd, arrived in North Sydney, loaded our entrapment inflatable aboard a NS DFO jet boat and luckily found the whale as the receiver on the tag was malfunctioning. Using various disentanglement techniques as the animal was highly mobile and evasive the team was unsuccessful in getting near enough to cut ropes over its head and through its mouth. The team trailered with the DFO crew to Fourchu NS the morning of the 23rd and with the assistance of a DFO surveillance plane located the animal and managed two successful attempts cutting various ropes on the side of its head and over the blowhole. WRS members then proceeded to Dartmouth and loaded our inflatable aboard the CCGS Peddle for further attempts at the animal as it moved south. Due to problems obtaining fuel for the CCGS Peddle, the response was delayed and then the whale moved into international waters and beyond our reach.

Minke whales

9th August

~8m animal entrapped in a 25 fathom trout net. The whale was stationary and anchored with rope around the rostrum and tight wraps around the peduncle with a small 15 lb grapnel tight to the peduncle wraps. There was also another small grapnel holding the net which had gas cans for floats. NL conservation officers removed the gas can and 3 fathoms of the net releasing the whale. The whale went off with the rest of the gear.

Killer whale

1st October

An adult male killer whale was found dead in cod gillnets off of Beaumont in Green Bay off of northeastern NL on the 1st October. The whale was entangled around the peduncle in the end of a fleet of 2 nets in 293 meters of water. The whale had become entangled at depth as the fisherman had not seen any whales in the area at time of set and there was cod in the end of the net which was twisted up around the whale which would indicate the net was fishing at the time of the entanglement. This is the second report of an entangled killer whale in our waters. The other report was in 2004 when a large male animal was seen off of Baccelieu on the NE coast towing a large red fishing float (Ledwell and Huntington 2004).

DFO Marine Mammals conducted the necropsy on the Beaumont orca.

Strandings/ Miscellaneous sightings and solitary social belugas

Beluga

15th July – 2nd September

A solitary social beluga took up residence in the cove in Witless Bay where ECO Tours, a whale tour operation operates out of. The whale adopted one of the inflatable boats and was overseen by tour operator Joanna Pilgrim. WRS had constant calls on the animal as

the area is a heavy summer tourist area. WRS took a biopsy using a hand plunger for DFO marine mammals. Ms. Pilgrim, along with support from WRS, maintained a constant vigil on the animal supplying educational material both oral and written to the constant stream of tourists visiting their work site. Constant reminders were also given to boats that came to check on the animal for fear of propeller injury. Unfortunately, the whale was severely injured by a speed boat on the 2nd September and we believe succumbed to its injuries.

Northern bottlenose whale

11th August

A northern bottlenose whale *Hyperoodon ampullatus* live stranded and died in Harbour Mille on the south coast of Newfoundland (47° 58'N, 54° 88'W) on August 11, 2019. A strange looking whale was reported by locals on the late afternoon of the 11th alive and thrashing on a rocky beach. The whale died later in the evening. Members of the Whale Release and Stranding group arrived on the morning of the 12th August and conducted a necropsy on the animal over the span of 2 days.

The animal was emaciated with severe post cranial dip and depressed sides with the vertebral column and rib cage visible and extruding the entire length. There was severe scarring on the animal with substantial tissue damage with bruising, scarred tissue and scabbing on the left lateral side beginning adjacent to the dorsal ridge and travelling towards the head (120 cm long and 50 cm deep). Similar tissue scarring was on the left side of the head with a broken left nasal bone. We believe the animal, because of the hematoma like tissue and damage to the skull, had suffered either a ship strike or was in contact with some other force and had been in the process of trying to heal over from the evidence of partial tissue healing. There was also a broken rib on the right side opposite the scarring which could have been the result of thrashing while stranding. The whale was feeding prior to death on both gadoids and squid. Plastic garbage in its gut consisted of a plastic cup with Icelandic writing from an Icelandic spa and a cookie wrapper with Portuguese writing on it. A section of very fine 150 mm mesh monofilament gillnet, shrimp trawl pieces and fine monofilament twine as used in salmon/trout recreational fishing and a bottle cap. Samples were taken of tissue and all organs including the damaged tissue and a large 5 cm in diameter nodule that was located on the lung and stored for processing at the marine mammal section of DFO, St. John's. A variety of nematodes were discovered in the gut. The entire skeleton was collected and is in the process of being cleaned at WRS.

Bowhead

17th August

A juvenile bowhead whale was photographed by a professional photographer very close to shore off of Open Hall in Bonavista Bay. The animal had a full plate of baleen hanging outside the left lower jaw meaning it appeared that if it closed its mouth the baleen would still be outside the jaw. There appeared to be a small section of the baleen plates missing and bite marks on the left pectoral and tail fluke. The tail stock and pectoral fin also had what appeared to be severe wounds. We expected a stranding, but the animal left the bay

and was not resighted. In 2015 we also saw a similar sized juvenile bowhead in various communities in Trinity bay (Ledwell et al; 2015).

Sei

9 September

A 1430 cm female sei whale live stranded in the early afternoon of the 9th September and died a couple of hours later. WRS conducted a gross necropsy with tissue, organ, stomach contents, morphometrics and images which were delivered to Jack Lawson, DFO marine mammals St. Johns.

Right whales

19th – 23rd September

The NARW “Mogul” was photographed and video taped by professional photographer Eric Abbott off of Red Head in Bonavista Bay on the 19th September. The animal appeared to be in feeding mode and left the area that afternoon.

On the 20th September an unusual looking whale was seen swimming back and forth at the surface and close to shore in Gaskiers on the Gaskiers Shore in St. Mary’s Bay. It stayed in the area until the 23rd September and was recorded by an experienced whale watcher on her cell phone. WRS members traveled to the area on the 23rd and from her description of the animal, its feeding behaviour plus the grainy cell photos leads us to believe it to be a right whale. It would have to be a different whale from the 19th however due to the distance that animal would have had to travel to get to the Gaskiers Shore from Bonavista from the evening of the 19th to the morning of the 20.

New disentanglement tools/Tool kits

A complete disentanglement tool kit was funded by DFO for use within the region in 2019.

Based upon the challenge of disentangling right whale #3125 this July and the loss of some tools and poles we have redesigned our breakaway knife with a clip so as when it engages with a rope/ropes even if we lose the pole the clip will hold the knife in the gear and hopefully continue cutting. It’s an exciting new tool. We are continually updating tools that are designed here. We only use WRS tools. We have a proposal in to the Habitat Stewardship Program to hold the first large whale disentanglement tool workshop to be held in St. John’s, NL. The concept is to bring together leaders of disentanglement groups to talk about and test cutting tools already out there and hopefully initiate the process of inventing others. (see Appendix II)

A disentanglement tool kit was developed by WRS for DFO in 2019.

Disentanglement Training

In February, W. Ledwell and J. Huntington delivered a two day disentanglement workshop requested by the Department of the Environment and Natural Resources, Government of Bermuda. The Whale Release and Strandings Group as the Whale Research Group before them have steered away from theoretical training for disentanglement of large whales for reasons that we believe in mentorship given the safety risks involved. However given the unique historical connection between Newfoundland and Bermuda and the Caribbean in general during the salt fish trade and the fact that the Department of Environment and Natural Resources were well aware of the work done and being done here with entrapped whales we decided to conduct the workshop. The exercise was one day classroom and one day on the water using a variety of cutting tools developed here for removing different types of gear from different types of entanglements.

Education activities

Over the summer of 2019 WRS, through an interactive outreach education program hosted by The Rooms' Open Minds Exhibit, WRS engaged members of the public and community organizations to promote ocean environmental protection through text, artifacts, interactive components and supplemental programming. Public lectures and educational panels about marine wildlife, threats to local species, including the North Atlantic Right Whale, and ecosystems (i.e. entanglement and by-catch, acoustic disturbance, interactions with vessels, etc.), as well as other marine conservation topics were central to the program. Visitors were also provided information about opportunities to get actively involved in environmental community events throughout the province.

With emphasis on accessibility and inclusion, throughout the summer months, WRS adapted programming at The Rooms' exhibit to most effectively engage a number of community non-profit and charity groups, including: Children's Wish Foundation, Autism Society of Newfoundland and Labrador, Vera Perlin Society, Association for New Canadians and The Gathering Place. Additionally, WRS took part in several other community events at various locations within St. John's through coordinating and leading hands-on education outreach sessions (i.e. Science Literacy Week, St. John's International Circus Fest, Earth Day Environment Fair, World Ocean's Day). In total, over the 2019 summer season, approximately 150 community group participants and several thousand members of the general public visited the interactive outreach education exhibit hosted by The Rooms, and several hundred more were engaged through 'on location' community visits and special events.

Cape St. Mary's Arts Inc. invited WRS to take part in the Cape St. Mary's Performance Series, where WRS engaged members of the public through lecture, a sample display of bones and baleen and discussion covering an array of topics from the basic biology of cetaceans, their taxonomic classification, methods used by scientists to study them in the wild and what we, humans, share in common with these sentient beings. In addition to a basic introduction into the world of cetaceans, an overview of the complexity of their life histories and concerning conservation issues that largely threaten their health and survival today were explored. Finally, a brief history of the organization, program objectives and

the legacy of founder, Dr. Jon Lien was shared, along with resources to learn more about WRS.

Recommendations

All vessels in the Newfoundland region should have the toll-free number stickers onboard alerting them who to call when they have an entrapped or stranded whale or see an entrapped or stranded whale or leatherback sea turtle. By having the toll-free number visible in the wheelhouse fishers may decide to call for expert advice when they have or see a whale or leatherback entrapped and not attempt to cut animals free and leave them with large amounts of gear attached which may cause the animal to die or become re-entrapped. This situation can be at least partially avoided if boats have the entrapment assistance hot line number easily visible onboard and upon calling can be advised on the proper release procedures or be advised that a release team is available to attend to the entanglement. This may lessen the number of whales or sea turtles each season swimming around with amounts of gear attached. See Appendix I for toll-free sticker.

Because of the dangers inherent in fishing boats encountering entangled large whales in their fishing gear in the offshore especially snow crab gear fishing groups need to be advised by an experienced disentanglement group on procedures to protect lives and lessen gear damage.

Table 1. Humpback whales reported entangled in fishing gear in Newfoundland and Labrador during 2019

Date	Area	Gear type	Description
19 May	Sunnyside, Trinity Bay	Lobster holding cage	Self-release towing lobster cage, small grapnel. WRS responded
30 May	Scrabster, Thurso Bay, north coast Scotland	Lobster	Dead on beach with gear from Lunenburg lobster fisherman on pectorals
14 June	Little Harbour East, Placentia Bay	Cod gillnets	Self-Release. WRS responded
3 rd - 5 th July	Chance Cove, southern Avalon 46.44.52N, 52.59.36W	Whelk pot gear	Released gear free by members of the WRS
16 July	20 nm off St. John's, 47.46N, 52.18W	Towing gear	Heading west towing small red balloon with wraps around its peduncle
17 July	Off St. John's harbour	Towing gear	Towing small red balloon with rope around peduncle. WRS with FV Cape Charles and CCG RHIB searched the area unsuccessfully for 2.5 hours
18 July	Off St. John's harbour	Towing gear	Towing small fishing float. WRS responded at 1900 and searched for whale in the area but were unsuccessful in finding one towing gear
18 July	St. Pierre	Possible rope in wound	Whale with large healing wound on top of head over the blowhole
5 July	Green Isle Brook, Great Northern peninsula	Possible entanglement	Reported by tourist close to shore entangled. Fisheries Officers from St. Anthony checked area and found a whale very close to shore but did not see any gear on it
13 July	Horse Chops, English Harbour West	Possible entanglement	Reported by hiking tourists towing gear. We contacted the tour boats in the area, but they hadn't heard anything, and the whale was not re seen
4 August	Witless Bay, Southern	Rope over rostrum	Image sent by J. Lawson. Unable to relocate animal

	Avalon		
10 October	Twillingate	Possible entanglement	Animal reported entangled by experienced scuba diver swimming back and forth in Bluff Cove. DFO Twillingate reported it and checked the area but the animal had moved on. No further sightings

Table 2. Minke whales reported entangled in fishing gear in Newfoundland and Labrador during 2019

Date	Area	Gear type	Description
9 August	Rigolet, Labrador	Salmon net	Released with gear still attached

Table 3. Other whales reported entangled in fishing gear to the Whale Release and Strandings Group in 2019

Date	Area	Species	Description
18-20 July	Portugal Cove South, southern Avalon	Fin	Dead in whelk gear
22-27 July	North Sydney – Halifax, Nova Scotia	Right	Tasked by DFO NL and NS to attempt disentanglement of NARW #3125. Partially disentanglement animal
9 August	Port aux Basques	Whale species	Small whale reported by master of Cabot Strait ferry with what appeared some type of gear on it. Passed message to DFO Port aux Basques but animal not resighted
1 October	Beaumont, Green Bay, NE coast	Killer	Large male dead in cod gillnets

Table 4. Leatherback sea turtle sightings reported in Newfoundland and Labrador during 2019

Date	Area	Description
14 August	Cabot Strait	2 free swimming reported in the Cabot Strait by MV Blue Puttees
15 August	Cabot Strait	3 free swimming reported in Cabot Strait by MV Blue Puttees

21 August	Cabot Strait, 4730N, 5910W	Reported by MV Blue Puttees free swimming
29 September	Deer Harbour, South West Arm, Trinity Bay	Free swimming

Table 6. Ice entrapped, stranded and dead floating cetaceans reported in Newfoundland and Labrador during 2019

Date	Area	Species	Description
16 March	Grand Beach, Burin Peninsula	Sperm	Large male dead on beach missing lower jaw
14 April	2 nm off Cape St. George, West Coast NL	Blue	Drifting in pack ice. Notified J. Lawson marine mammals DFO
29 May	St. Lewis, Labrador	Pilot	Dead on beach
14 June	Grand Banks, 3NO area	Humpback	Dead drifting. Reported by DFO St. John's
14 June	Blue Beach, Port au Port, West Coast	Humpback	Dead drifting. Reported by DFO St. John's
14 June	Gulf St. Lawrence, 4816N, 6101W	Small whale species	Small 3-4 m whale dead drifting reported by MV Maersk Patras
1 July	Grand Banks, 4815N, 5130W	Humpback	Dead drifting with large shark bites taken out of it. Reported by fishermen MV Michael Mariner
21 July	Blomidon Park, West Coast	Humpback	Dead in a cove. Photographed from a distance. DFO plane surveillance said the conservation officers had checked it out
28 July	Salmon Cove, Conception Bay	Minke	Dead stranded. No evidence of fishing gear on the animal. Pictures sent to WRS
29-30 July	Cooks Harbour, Great Northern Peninsula	Pilot	Live stranded, pushed back to deeper water. Restranded and died
30 July	York Harbour, West Coast	Humpback	Dead on beach. Passed to DFO St. John's (this may be the same whale from 21 July)
5 August	St. Bride's	Whale species;	5-7 m dead floating white belly, dark flippers
6 August	Sops Arm, White Bay	Minke	5-7 m dead drifting. No sign of entanglement

7 August	Dildo Run, New World Island 4727N, 5448W	Sei	Dead drifting. Reported by sailboat
8 August	Flower's Cove, Great Northern Peninsula. 5140N, 5651W	Humpback	Dead on beach. Been dead for weeks
11-13 August	Harbour Mille, Fortune Bay	Northern Bottlenose	Live stranded and died. Female. Necropsied by WRS
14 August	St. Lawrence, Placentia Bay	Minke	Fresh dead stranded. No evidence of entanglement
19 August	Passenger Cove, Little Hearts Ease Trinity Bay, 4805N, 5341W	Minke	Dead stranded
28 August	Strait Belle Isle, 5157N, 5541W	Sperm	Dead floating. Reported by MV West Trader
28 August	Jobs Cove, Conception Bay	Harbour porpoise	Dead stranded on beach
28 August	NW Arm, Trinity Bay	Minke	Dead floating. We believe same animal from 19 th August as it had drifted twice since the initial report to us
7 September	4904N, 6317W	Whale species;	Reported dead drifting by supply boat MV Maersk Penguin
9 September	Frenchman's Cove, Fortune Bay	Sei	Female. Live stranded and died. Partial necropsy by WRS.
17 September	Bay Bulls, Southern Shore	Dolphin species;	Small animal dead by wharf. WRS and DFO searched area but were unable to locate animal

Table 7. Miscellaneous cetaceans reported in Newfoundland and Labrador during 2019

Date	Area	Species	Description
May-August	Sop's Arm, White Bay	Beluga	Social animal following boats in and out of harbour
First week July-late August	Hatchet Cove, Trinity Bay	Beluga	Solitary, social, juvenile in harbour
12 July	Off Petty Harbour, Southern Shore	Beluga	Small juvenile free swimming
15 th July-2 nd September	Witless Bay	Beluga	Solitary social beluga
17 August	Open Hall, Bonavista Bay	Bowhead	Juvenile with injuries close to shore

4 September	West Brook, Trinity Bay	Beluga	Solitary social beluga in area since June
19 September	Red Head, Bonavista Bay 4866N, 5312W	North Atlantic Right	Animal appears feeding, video and images recorded. Identified as Mogul.
20 - 23 September	Gaskiers Shore, St. Mary's Bay	Possibly North Atlantic Right?	Possible right whale recorded from shore with grainy images

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Appendix II

