Large whale entanglements, strandings, ice entrapments and selective sightings reported to the Whale Release and Strandings Group in Newfoundland and Labrador and a summary of the Whale Release and Strandings Program during 2018

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

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Thanks to the Navigator magazine for running reduced fee ads advertising of the toll-free number to fishers with details of whom to call when you have or see a marine animal entrapped or stranded.

The Canadian Coast Guard Marine Traffic and Light Station Centers diligently report entrapped and stranded marine animals and sightings regularly to the hot line. Thanks for the service. Thank you to the Town of Portugal Cove-St. Philip's.

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 2018 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 (1978-2018) 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 - 2018.

This report represents the forty first (41) 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 2001-2018, 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. It 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 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 2018 one thousand and ninety-eight (1098) humpback whales (*Megaptera novaeangliae*), one hundred and sixty-three (163) minke whales (*Balaenoptera acutorostrata*), fourteen (14) fin whales (*Balaenoptera physalus*), two right whales (*Eubalaena glacialis*), one 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 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).

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 2018 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, clean 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 responded 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 2018. Additional funding was provided through Mountain Equipment Co-op (MEC), Canadian Wildlife Federation (CWF), Exxon Mobil, 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 the Newfoundland and Labrador Department of Fisheries (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; 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; 2017).

Humpback Whales

Twelve (12) humpback whales were reported entangled in a variety of fishing gears in 2018 (Table 1). We believe 3 of these reports may have been the same animal based on the gear configuration and types of gear. The first report of a humpback entangled in salmon aquaculture gear on the 14th of August came as no surprise as humpbacks, minkes and leatherbacks frequent the areas where the aquaculture pens are located on the south coast

24th March

Whale feeding on herring inside a bar seine. Whale swam out on the rising tide damaging the bottom of the seine. Said Mr. Hackett "my son, he was in no hurry to leave that seine. He was coming up with herring washing over his back".

1ST June

Little Hearts Ease Eastern NL Humpback disentanglement June 1, 2018.

The Whale Release and Strandings Group received a call at 0825 on June 1 reporting a whale entangled in a mooring outside the harbour of Hodges Cove/Little Heart's Ease. The report was not verified, and we were in the process of checking with local fishers. The DFO Conservation Officers from Clarenville had a patrol boat in the area and they went and verified the entanglement. We were geared up and left for the area immediately (1030) after the call from Jason Miller of DFO who was onboard the patrol boat and said they would stand by the whale for us.

We arrived in Hodges Cove at 1300, were met by the patrol boat, transferred some of our gear to them, went out and found a large, adult humpback entangled in a herring net span, a 40 kg anchor and an A5 poly buoy. The anchor was holding the whale, however it had quite a bit of mobility circling the buoy. Due to the heavy rains over past few days the water was very murky, and it was difficult to orientate on the whale as the animal was very active swimming around the buoy. It was also not possible to look under the water with mask and snorkel to see where the gear was entangled around the whale, which is always the first step working the animals, due to the whale's mobility and the water clarity.

The fishermen who owned the herring span that the whale was caught in were on scene as were the crew that reported the entanglement, as well as the DFO patrol boat. We

managed to make 2 cuts with the Tangly Whale cutting grapnel after repeated attempts to get close to the whale. The first released part of the gear and we decided to move closer to the animal when it surfaced which was difficult as it was doing quick surfaces randomly around us. We got our cutting tool in close to the body and cut the anchor rope releasing the whale from the anchor. The whale began moving out the bay and the one rope that was across its back that was attached to the anchor was now seen as washing back and forth on its back. We followed it for 1/4 nm as it swam out the bay while it orientated itself. It took a deep dive and we saw it off in the distance further out the bay. Total time working the whale was 2 hours in a light northeaster.

The fishermen who owned the herring gear retrieved his poly buoy and a significant amount of rope.

As this whale was entangled very close to the communities of Hodges Cove and Little Heart's Ease and adjacent community's, people on the wharf were interested in how the work went. This happens all the time as these entrapment/entanglements become community stories/events.

15th July

The whale was entangled in a fleet of 3 gillnets. The fishermen began taking the nets that were not entangled from the animal, then it became "too scary" for them as the whale began to kick up. They managed to get 2 nets back and the whale took the other net. It was in the area for 2 days and the whale was not relocated.

21st, 30th July 1st August

We believe the 3 entanglements from the 21st and 30th July and 1st August to be the same whale based solely on the gear configuration, its typical northern trajectory and the staff buoy which would have broken from the whales swimming/diving behaviours.

25th July – 1st August

We believe these to be the same animals based on the time frames and reasoning from the above paragraph.

14th August

A large amount of Atlantic salmon were set loose from an aquaculture pen breakdown off Hermitage on the south coast and the whale became entangled in a surface net or salmon net set to try and recapture the escaped salmon. Humpbacks are frequently found in that part of the bay. The whale took the net in tow because it had no serious anchoring system (such as grapnels), but were using rocks to keep it in place. Because of licensing restrictions and the ban on salmon fishing DFO conservation officers were monitoring the attempt to recapture the salmon and saw the whale become entangled, called us and we kept monitoring the whale's movement on a 7-hour drive to get there. On cell consult we suggested driving the whale up the Gaultois Inside Passage to contain it as it was still towing the whole net, but the whale wouldn't enter it. The whale began heading out into the bay and wind increased. We managed to catch up to it in time and got the net off of it

and gave it back to Cooke Aquaculture.

13th September

Report from RCMP of whale towing gear off White Bear Bay on the south coast. Talked to the people who reported it and they sent pictures of the whale towing 2 large red poly buoys. WRS alerted DFO to be on the lookout for the animal but it was not relocated.

Minke whales

6th August

A cabin owner 50 km from Cartwright found a minke towing a net with float attached and cut the float off thinking he had done it a service. Reported to DFO Goose Bay who called us and they tracked the entanglement to a fisher who had lost his salmon net and didn't know what had happened to it. We asked for coverage and the conservation officers went out on the 7th in hopes of finding the animal and re anchoring it with a large grapnel and long leash so as we could get down there and release it. The animal was not found and more than likely died as the fellow who cut the "bobber" off of it said it looked in poor shape. Had he left the float on it chances of finding it would have been better.

Strandings

17th-22nd March

From the 17th – 22nd March eight (8) white beaked dolphins *Lagenorhynchus albirostris* were entrapped by fast moving pack ice in the Hearts Delight harbour of Trinity Bay. Light northeast winds kept the harbour blocked although outside the harbour was open water all the way. The dolphins had a small patch of water adjacent to the road and a community vigil was held with heavy media involvement throughout the ice entrapment. On the 22nd March, fearing strong easterly forecasted wind increase that would push the animals either into the ice or onshore a complex plan involving two excavators and small community boats including a DFO fast rescue boat was put in place whereby the excavators began passing ice to each other along the wharf and out into the ice-free part of the bay. The boats then began pushing individual pans inside the harbour to the excavators clearing away the harbour piece by piece. We managed to open a path through the ice, used the engine power of the DFO fast rescue boat in neutral to wash away ice alongside the dolphins and all the time fearing it may backfire and force them ashore. They made their run for it and they all got out and swam on.

27th April

Humpback dead drifting reported by large vessel in pos 47 46 51N Lat, 54 0154W Long in Placentia Bay, off Cape St. Mary's. Photos taken showed multiple propeller cuts on right side, jaw damage and bruising on its backright side adjacent to the propeller cuts

18th - 20th June

An adult minke live stranded on a sand bar in Harbour Grace. Members of WRS managed to refloat it but it would not leave the harbour. The minke restranded in the river by the road. On the 19th in a gale of wind the whale began moving out the harbour close

to shore, rolling, doing back swims, belly rolls and at time surfacing with kelp on its head. We lost sight of it due to the wind, but it was discovered dead on the 20th June on the opposite side of the harbour. It was necropsied by J. Lawson of DFO Marine Mammals and members of the WRS.

24th July

A 567cm female Cuvier's beaked whale, *Ziphius cavirostris*, stranded and died on a beach in Lumsden. WRS went to necropsy the animal but were told by the town managers that we would have to move it off the beach as they didn't want the beach messed up. Logistically we didn't have the resources to tow it to an island 2 miles away. Basic samples were collected and delivered to DFO.

19th August

Although not technically a stranding, members of WRS observed a full-grown male pilot whale, judging from its size and dorsal fin, spend 2 days inside Dover harbour. The group was in the area responding to a dead stranded fin whale at Greenspond (table 6). Its activities included: resting and coming very close to shore and then speeding around the cove as if it was going to leave and coming back inside resting again at the surface and speeding up even to the cove mouth and coming back in to rest same way close to shore. It was gone early morning on the 20th August. The water was plenty deep for it to leave with no shoal barriers which earlier may have caused it fear of moving into and over..

New disentanglement tools/Tool kits

A revised cutting grapple and new flying knife were designed and developed by WRS this year. These tools together with our pole knife were displayed and explained at the DFO MMRP workshop in March and also at an International Whaling Commission (IWC) disentanglement workshop in Provincetown, MA in June.

A disentanglement tool kit was developed by WRS for DFO in 2018.

Education activities

Interactive presentation and display on north Atlantic whale species and leatherback sea turtles for children, youth and adults were presented at the following events:

Environmental Days at PCSP: Saturday April 21st, 10-3pm.

Environmental Days in St. John's at the Fluvarium: Sunday 22 April, 12-4:30pm.

Oceans Day at Marine Institute Memorial University: Saturday June 2, 10-3 pm.

8th Annual Whale Day at Cape Spear with Parks Canada: Sunday June 24, 10-3pm.

Champney's West Aquarium (see appendix 2): July 21, 2018

Elliston Puffin Days pre-festival event: July 20, 2018

Summer Camp activities at Freshwater Resource Centre three presentations.

Presentation at St. John's International Circus Fest: Sept. 30, 2018.

Recommendations

Recommendation 1. Funding agreements should be in place and funds available before entrapment season begins. Agreements need to be established that are assurances to provide support to an organized program over a period of years. Programs that do not have these assurances will be very difficult to maintain and staff on an on-going basis (Lien 2004).

Recommendation 2. 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 large amounts of snow crab and other 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.

Table 1. Humpback whales reported entangled in fishing gear in Newfoundland and Labrador during 2018

Date	Area	Gear type	Description
24 March	Harbour Mille, Fortune Bay	Bar seine	Self-released
1 June	Little Hearts Ease, Trinity Bay	Herring net mooring	Released gear free by members of WRS
8 June	St. Brendan's, Bonavista Bay	Towing small red poly buoy	Whale swimming to the NE towards Gooseberry Island
1 July	St. Mary's Bay	Towing 2 large poly buoys from possible crab gear	The fisherman saw it late evening of the 1st and it was not relocated
15 July	Off Cape St. Mary's	gillnets	Released by fishermen with one net left on it
21 July	Cape Bonavista	Towing a staff buoy with reflector and the tagging balloon – crab gear	Whale swimming north at 1-2 knots. We notified boaters and DFO in the area, but the animal was not relocated
25 th July	49 38.89N, 53 13.77W, Bonavista Bay	gillnets	Towing 2 small red poly buoys from cod gillnet entanglement. Reported by fisherman
30 July	Jackson's Arm, White Bay	Crab gear	Towing rope across its back with small red poly buoy and broken staff. Probably whale from 21 st July
1 August	Wild Cove, White Bay	Crab gear	Same whale from 30 th July
1 August	Change Islands, Notre Dame Bay	Rope and 2 small red poly buoys	Maybe same whale from 25 th July. Whale heading NNE at 2-3 knots
14 August	Hermitage, Connaigra Peninsula	Aquaculture net	Released alive with some rope around the peduncle
13 September	White Bear Bay, South Coast	Towing 2 large poly buoys	Large whale towing gear

Table 2. Minke whales reported entangled in fishing gear in Newfoundland and Labrador during 2018

Date	Area	Gear type	Description
6 August	Fish Cove Point, Labrador	Salmon net gear and float	Whale reported by cabin owner. He cut the "bobber off of it"

Table 3. Other whales reported entangled in fishing gear to the Whale Release and Strandings Group in 2018

Date	Area	Species	Description
9 May	Fortune Bay	Fin or Sei	Dead drifting off Point Crewe with rope in mouth and around tail stock
30 July	Off Grand Manan New Brunswick	Right	Reported to WRS by Canadian Whale Institute as they were attempting a disentanglement

Table 4. Leatherback sea turtles reported stranded in Newfoundland and Labrador during 2018

Date	Area	Description
29 October	Journois Brook, St.	Decomposed and discovered on the beach.
	Theresa's, West Coast	Rising river and high winds prevented
		overland or at sea recovery

Table 5. Leatherback sea turtle sightings reported in Newfoundland and Labrador during 2018

Date	Area	Description
9 September	Bonaventure Head, Trinity Bay	Free swimming

Table 6. Ice entrapped, stranded and dead floating cetaceans reported in Newfoundland and Labrador during 2018

Date	Area	Species	Description
3 January	Nameless Cove,	Humpback	Freshly dead stranded
	Great Northern	~12m	
	Peninsula		
17 March	Heart's Delight	8 White beak	Entrapped by pack ice from 17-
	_	dolphins	22 March. All released alive
27 March	Little Bay Islands,	20m sperm	Dead stranded

	Notre Dame Bay		
27 April	47 46 51N, 54 01 54W, Placentia Bay	8-10m humpback	Dead floating
12 June	New Chelsea, Trinity Bay	White-sided dolphin	Decomposed on beach
18 June	Harbour Grace, Conception Bay	minke	Live stranded, refloated by WRS and discovered dead in bay on the 20 th . Necropsied by J. Lawson and members of WRS.
19 June	Southern Harbour, Placentia Bay	minke	Dead for at least two weeks on the beach
27 June	50 25.48N, 57 58.06W (Off western NL)	fin	Dead drifting reported by container vessel
6 June	Forteau Labrador	fin	Dead drifting
24 July	Lumsden, Bonavista Bay	Cuvier's beaked	Dead stranded
1 August	Parsons Pond, Great Northern Peninsula	humpback	Female dead on the beach with flukes missing. Possibly cut out of gear while discovered dead in the gear
13 August	49 12.33N, 53 22.71W. Middle Rock, Bonavista Bay	humpback	Dead drifting reported by vessel Vincent Pride and relayed to WRS through CCG traffic
18 August	Greenspond, Bonavista Bay	fin	17m dead male. Multiple large shark bites measuring 50 cm along the water line and jaw
19 August	Dover, Bonavista Bay	pilot	Large animal swimming in the small harbour/cove for 2 days. Left on its own
4 th September	50 25.6N, 53 54.5W. The Funks	Large whale spp.	Dead drifting
29 September	Random Island causeway, Trinity Bay	2 white-sided dolphins	Live stranded, refloated but returned and died
9 October	Raleigh, Great Northern Peninsula	3 white beaked dolphins	Animals discovered on the beach, one had died, 2 pushed back to deep water, one returned and died and the other was not seen again

14 October	Chapel Arm, Trinity	20m fin	Live stranded and died night of
	Bay		18 October. Animal extremely
			thin. Tissue and baleen samples
			collected by WRS and J. Lawson
17 October	Holyrood,	White-sided	Dead on beach. Collected by
	Conception Bay	dolphin	DFO Marine Mammals for
			necropsy

 Table 7. Miscellaneous cetaceans reported in Newfoundland and Labrador during 2018

Date	Area	Species	Description
12 July	Southport, Trinity Bay	beluga	Juvenile solitary social in the harbour alongside the wharf
23 July	Lance au Loup, Labrador	beluga	Juvenile, solitary social in the harbour by the wharf been there 5 days

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WHALE AND TURTLE NOTICE

If you have a WHALE or TURTLE or basking shark (live or dead) caught in your fishing gear, call this toll-free number and we will respond with a trained team. If you see any whales, turtles or dolphins (live or dead) on a beach, please call. Should you see any leatherback sea turtles please call.



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Appendix III

