

INCIDENTAL ENTANGLEMENTS OF CETACEANS AND LEATHERBACK SEA
TURTLES IN FISHING GEAR REPORTED DURING 2011-2012 AND A SUMMARY
OF THE WHALE RELEASE AND STRANDINGS GROUP ACTIVITIES.

A PRELIMINARY REPORT SUBMITTED TO THE DEPARTMENT OF FISHERIES
AND OCEANS, CANADA

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WAYNE LEDWELL AND JULIE HUNTINGTON - WHALE RELEASE AND
STRANDINGS GROUP, 244 TOLT ROAD. PORTUGAL COVE-ST. PHILIP'S,
Newfoundland and Labrador, A1M 1R2

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Thanks to the Shell Fuelling for Change Program we were able to procure funds for the purchase a new entanglement zodiac, trailer and safety equipment to continue our work of protecting marine animals in this region

The Navigator Magazine generously ran (and have done so for several years now) six months of free advertisements promoting the toll-free number to fishers with details of whom to call when you have or see a marine animal entrapped or stranded; thanks to Madonna Stewart and the staff. Thank you to the Community of Portugal Cove-St. Philip's for providing in-kind support of the program through a reduction in business taxes.

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Introduction

Following significant changes to fisheries in Newfoundland and Labrador since the cod moratorium of 1992 there is widespread perception that total amounts of fishing gear (particularly gillnets and fish traps) have declined significantly since the early 1990s as a result of management measures aimed at conserving fish stocks (including quota limitations, gear restrictions, licensing conditions area closures and shorter fishing seasons). While this is true for fish traps (especially cod traps), part of the gillnet effort historically directed for cod fish has been directed towards other species. Concurrently, pot gear fisheries (particularly snow crab, but also whelks (*Buccinum undatum*) and lobster (*Homarus americanus*) have witnessed strong growth since the cod moratorium.

Worldwide large numbers of large whales are unintentionally captured in artisanal and commercial fisheries worldwide (Perrin 1999, Perry 1999, Werner et al. 2003). Worldwide, entrapment in fishing gear constitutes a major threat to large whales, often resulting in injury and mortality (Knowlton and Krauss 2001, Perrin et al. 1994, Robbins and Mattila 2004, Johnson et al. 2005, Benjamins et al. 2011). Although global estimates are lacking, such entrapments are likely widespread amongst many of the world's baleen whale populations (Read et al. 2006). Entrapments of large whales typically involve stationary fishing gears, e.g. gillnets, pots, traps and seines as well as lines attached to moorings and buoys (Benjamins et al. 2011). Entrapments can occur when whales collide with such fishing gears when nets, lines etc. are snagged around various parts of the bodies, such as the jaw, flippers, tailstock and/or flukes or dorsal fin and whales can become further entrapped while trying to escape (Benjamins et al. 2011).

Entrapments of large whales, basking sharks, and leatherback sea turtles together with sightings, strandings and unusual marine animals have been recorded in Newfoundland and Labrador since 1979. The emphasis of the program was and is aimed at releasing entangled animals and reducing costs to fishers. During the periods 1979-2011, 1314 large whale entrapments were recorded in Newfoundland and Labrador. These were mostly humpback whales (*Megaptera novaeangliae*; 80%) and minke whales (*Balaenoptera acutorostrata*; 15%). Declines in whale entrapment rates were observed following the 1992 moratorium on Atlantic cod (*Gadus morhua*) fisheries. Recently, however, more entrapments have been reported further offshore, largely due to the expansion of fisheries targeting snow crab (*Chionoecetes opilio*).

Whale Release Program

The Marine Animal Release Program in Newfoundland and Labrador responds to calls from fishers and others. The vast majority of reports originate from fishers, though some reports were provided by tour boat operators, Conservation Officers, Fisheries Observers, DFO surveillance flights and Canadian Coast Guard staff concerning accidental entrapments in fishing gear of large marine animals such as whales, leatherback sea turtles (*Dermochelys coriaca*) and basking sharks (*Cetorhinus maximus*). The Program (the oldest and most mentored large whale release program in existence) has been run by

the Whale Research Group of Memorial University of Newfoundland (1979-1998), Canadian Coast Guard (1999-2000), and the independent Whale Release and Strandings Group of Newfoundland and Labrador (2001- present). The authors have worked with all groups as large whale, sea turtle and basking shark disentanglement specialists. Program objectives are to (1) assist fishermen in the release of whales and other large marine animals from fishing gear, thereby decreasing fishing downtime and damage to their gear and retrieving gear that would otherwise be lost, (2) release entrapped animals as quickly and safely as possible, (3) attend to strandings of marine animals alive, ice-entrapped or dead, (4), collect information from fishermen and community members about local marine species, and (5) add to the scientific knowledge of these species in Newfoundland and Labrador waters. Original records of reported entrapments from 1979 to present have been summarized by Benjamins *et al.* 2011, Lien (1994) and in numerous Release Program reports (Lien et al. 1990, 1991, 1993, 1994, 1995, 1996; Ledwell *et al.* 2000, 2001; Ledwell and Huntington 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, Ledwell *et al.* 2010-2011.

Table 1. Humpback whales reported entangled in fishing gear in Newfoundland and Labrador during 2011-2012

| Date | Area | Gear type | Description |
|----------|--|-----------|--|
| 29 April | 5 nm off Fortune Head, F.B | Snow crab | Humpback entangled in position 4700N, 5600W. WRS responded and searched area but were unable to find whale |
| 5 May | 4700N, 5600W | Snow crab | Humpback reported entangled 1 nm from position of 29 April. No contract in place to pursue |
| 9 May | Off Fortune Head | | Dead humpback drifting in the bay. Assume same as 29 April and 5 May |
| 15 May | 40nm south Cape Race. 4613.41N, 5237.62W | Snow crab | 15 m animal entangled in fleet of crab gear. Rope through mouth and tail. Fishermen tried unsuccessfully to release and cut animal out with 40 pots attached. Unauthorized to charter vessel to reach animal |
| 16 May | 7 1/2 nm S.E. Ochre Pit Cove 4751N, 5253.46W | Snow crab | Entangled in fleet of 25 crab pots in 100fm. Couldn't find whale or gear during area search |

| | | | |
|-----------|--|--|--|
| 13 June | 30 nm E Cape Race 4622.57N, 5233.84W | Snow Crab | Est. 7 m dead at depth in lines between pots |
| 16 June | Cape St. Mary's | Staff with styrofoam float and rope | Checked area but couldn't relocate whale. Talked to cod fishermen in area, searched the area |
| 7 July | Chapel Arm, T.B. | Derelict 5/8 poly and various poly and plastic floats. Lost/left Caplin mooring | Released alive and gear free by WRS |
| 23 July | Horse Chops Trinity Bay | Netting and rope | Swimming towing gear. Unsuccessful in relocating |
| 16 August | Blue Cove, G.N.P | Small poly buoy and rope | Swimming towing gear. Unsuccessful in relocating |
| 31 August | St. Anthony Bight | Small red balloon and rope | Swimming towing gear. WRS searched area but unable to relocate whale |

Table 2. Minke whales reported entangled in fishing gear in Newfoundland and Labrador during 2011-2012

| Date | Area | Gear type | Description |
|--------|----------------------|---------------|---|
| 1 July | Cottrels Cove, N.D.B | Lobster | 27m whale was found entangled in the gear but fisherman says it drifted into it and that the whale was probably caught in others gear. Could not confirm. |
| 6 July | Ochre Pit Cove, C.B. | Lumpfish nets | ~9m minke released alive and gear free from nets by WRS |

| | | | |
|-------------|---------------------------------|--------------|---|
| 7 September | Greenspond, B.B. 4902N, 5331 | Cod gillnets | Fishermen tried unsuccessfully to release it. WRS searched area with fishermen for 3 hours. Unable to relocate. Animal towing 2 cod gillnets, haul-ups and floats |
|-------------|---------------------------------|--------------|---|

Table 3. Other large whales reported entrapped in fishing gear in Newfoundland and Labrador during 2011-2012.

| Date | Area | Species | Gear type | Description |
|----------|----------------------------------|-------------|----------------|--|
| Mid July | 200nm from Branch Grand Banks | Large Sperm | Monk fish nets | Whale caught at depth through mouth. Released alive and gear free. |
| 21 July | St. Pierre Bank. 4628N, 5653W | Whale Spp? | Gillnets | ~ 10m whale dead floating |

Table 4. Small cetaceans reported entangled in fishing gear in Newfoundland and Labrador during 2011-2012

| Date | Area | Species | Gear type | Description |
|---------|-----------------------|--------------------|-----------|--------------|
| 28 July | Middle Arm, Green Bay | White beak dolphin | Lump nets | Dead in gear |

Table 5. Basking sharks reported entrapped in fishing gear in Newfoundland and Labrador during 2011-2012

| Date | Area | Description |
|---------|-----------------|--------------------------|
| 22 June | Cape St. Mary's | 6 m dead in cod gillnets |

Table 6. Leatherback sea turtle sightings reported in Newfoundland and Labrador during 2011-2012

| Date | Area | Description |
|-----------|-----------------------------|------------------------------------|
| Fall 2011 | Taylor Bay, Burin Peninsula | Dead on beach. First report to WRS |

| | | |
|-------------|--|--|
| 14 August | St. Marys Bay 4643N, 5346W | ~2m carapace. Free swimming |
| 19 August | St. Marys Bay 4643N, 5344W | Thought to be different from 14 August animals. This animal had yellow spot on back of head whereas 14 August animal the spot was not seen |
| 7 September | Off Greenspond 4902.113N, 5330.480W | Seen by W. Ledwell free swimming |
| 19 October | Flat Bay, West Coast | Dead 140 cm reproductive female. Necropsied by W. Ledwell |

Table 7. Stranded and dead floating cetaceans reported in Newfoundland and Labrador during 2011-2012

| Date | Area | Species | Description |
|---------|----------------------------------|----------|---|
| 1 April | 4447.65N, 4750W | Sei? | Reported by DFO surveillance plane |
| 20 May | Little Bay Springdale | Sperm | Est. 10 m sperm alive and died in harbour |
| 10 June | Avalon Bay, Francois South Coast | Sperm | Dead 2-3 weeks |
| 13 June | Joe Batts Arm | Sperm | Believe same as 20 may whale drifted in a slower jaw taken of. This animal had it's lower jaw removed at Little Bay |
| 20 June | Lords Cove Burin Penn | Pilot | Live stranded on isolated rocky beach. Sea too rough to get animal off. Wayne Ledwell went to area but animal, a full grown female had died. A 1.5m calf was also on beach with her |
| 9 July | Branch, Cape Shore | Humpback | Dead drifting |

| | | | |
|-------------|--------------------------|---|---|
| 8 November | Terra Nova NTL. Park | Pilot whale | Mature male refloated and towed out twice by WRS/DFO. Animal died on 17 Nov. and was necropsied by NL Provincial vets |
| 16 November | Cobbs Arm. N.D.B. | Pilot | ~3 m animal multiple strandings and died. Locals pushed it out but it restranded |
| 4 December | 15 nm off cape Bonavista | 2 killer whales (one with very tall dorsal fin) | Seen by turr hunters free swimming |
| 4 December | Point au Gaul | Pilot whale | Full grown animal dead on beach |
| 7 December | Flowers Cove, G.N.P | Dolphin spp | Live stranded in heavy seas. Local pushed it out but seas too rough. Talked to the stranding group at time of response. Dolphin died during night |
| 18 December | Deer Island Tickle, B.B | 6 pilot whales | Mixed group of pilots at bottom of 4-mile narrow channel. Shepherded to open water by WRS/DFO on 20 December |
| 20 December | Lockeys Bay. B.B | Pilot whale | Dead full-grown female pilot. Heard during night by locals making sounds |
| 20 December | Lockeys bay B.B | Newborn pilot whale | Dead close to female from same area of above |
| 31 December | Stephenville | Pilot whale | Full grown animal dead on beach |
| 27 February | Famine Point. F.B | Whale spp? | Whale dead a long time partially buried in beach |

Table 8. Miscellaneous cetaceans reported in Newfoundland and Labrador during 2011-2012

| Date | Area | Species | Description |
|---------|----------------------------------|---|--|
| 8 May | Virgin Rocks area 4630N, 5157W | Blue whale | Free swimming |
| 11 May | Boswallis Port au Port Peninsula | Beluga | Solitary social chasing lobster boats in and out |
| 27 May | Port au Port | Beluga | Still same behaviour. CBC interview on animal and situation |
| 23 June | 4743N, 4750W | About 20 Sei | Seen by crab fisherman on Grand Banks |
| 29 June | Point A 'Amour Lab | Group Killer whales | Free swimming |
| 3 July | Cape Bonavista | Group Killer whales | Free swimming |
| 12 July | Little Bay Islands, Green Bay | Beluga | Solitary social beluga interacting with locals |
| 13 July | Springdale | Beluga | Injured animal with wound on back anterior to dorsal |
| 18 July | Kings Point | ~5 m beluga | Baseball size scar anterior to dorsal. Said to not be same animal as 13 June |
| 20 July | Paquet White Bay | 6 kws (one large animal with high dorsal) | Free swimming |

| | | | |
|-------------|-------------------------------------|---|---|
| 23 July | Cuckolds Cove, St. John's | Group of killer whales | Free swimming |
| 23 July | North head of Bay Bulls (The spout) | Group of killer whales | Free swimming |
| 24 July | Chapels Cove T.B. | One large killer whale with tall dorsal | Free swimming |
| 3 August | Broom point, West coast | 2 ~ 3m beluga | Social animals |
| 11 August | Little Bay Islands, Green Bay | Beluga | |
| 3 September | Little Bay Islands, Green Bay | Beluga | |
| 4 March | South Hearts Content | 4 blue whales | Turr hunters described what appears to be 4 blue whales |

Table 9. Other marine animals reported in Newfoundland and Labrador during 2011-2012

| Date | Area | Animal | Description |
|---------|------------|-----------|-----------------------|
| 29 July | Middle Arm | 3 m shark | Dead in lumpfish gear |
| | | | |

Humpback whales

Eleven (11) humpback whales (Table 1) were reported to the Whale Release and Strandings Group in 2011-2012. Five of those animals were entangled in snow crab gear. The 29th April whale was reported entangled 5 nm of Fortune Head. At the time there was no program funds available to begin a rescue attempt. The Whale Release and Strandings Group responded and unsuccessfully searched the area. It was foggy at the time. The animal was subsequently resighted still entangled on the 5th May. Bad weather, lack of funds and the unavailability of a support vessel to accompany the Group prevented a rescue attempt. A dead humpback discovered drifting in the bay in the vicinity of the entanglement is thought to have been this animal.

Two humpbacks were entangled in snow crab gear in the fishing area 3LN 40nm east of Cape Race. One of those animals was cut free with 40 crab pots, one haul up end and poly buoys. The WRS was patched through to the vessel while the animal was still entangled after the fishermen had cut it free. Subsequent attempts to get to the area were unsuccessful as the fishing vessel was not returning to the area and the WRS group did not have access to the large vessel fleet for transport and search capabilities. Notices to mariners were sent out and vessels in the area were asked to call for further sightings. A string of bad weather prevented many vessels from fishing the area.

A 7 m humpback was discovered dead in crab gear on the 9th May. The whale had died at depth while entangled in the ground line between the pots in area 3LN 30nm east of Cape Race.

A humpback was reported to the Whale Release and Strandings Group on the 16th may entangled in a fleet of 25 snow crab pots with both ends pulled together. The WRS geared up to go awaiting word from the fishermen to check area in early morning. The skipper reported not finding either the whale or his fleet of crab gear. It is suspected the animal towed it off

A humpback was released free from gear and alive after being entangled in derelict caplin trap moorings. The gear was sunk and shore fasted to land. The animal was entangled through the mouth and around the tail.

Various other humpbacks (Table 1) were reported towing fishing gear to the Whale Release and Strandings Group and attempts to relocate the animals by the group were unsuccessful.

Minke whales

Three minke whales (Table 2) were reported to the Whale Release and Strandings Group in 2011-2012. The animal from 1 July although discovered in lobster gear was said by the fisherman who owned the gear that the animal drifted into his gear after being entangled in other gear. We were unable to track down the owners of the gear and unable to determine if the animal was indeed entangled as the whale was towed out to sea and put on a drift. It is entered in the Table 2 as a possible entanglement.

A second minke was released alive and gear free from monkfish gillnets on 6 July by members of the Whale Release and Strandings Group. The animal had mouth and peduncle entanglements.

A 3rd minke was entangled in a fleet of two cod gillnets off Greenspond on 7 September. Members of the WRS and the fishermen who owned the gear searched the area for 3 hours in worsening sea conditions unsuccessfully for the animal or gear. The whale is suspected of towing the gear away. It was not resighted. Winds in the area were gale force for 2 days after the entanglement and fishermen did not get out to the grounds.

Sperm whale

The first entanglement of a sperm whale in the 33 year history of disentangling large whales in Newfoundland and Labrador waters program **occurred** in July of this year in monk fish gillnets 200nm from Branch in area 3LN (Table 3). The whale was entangled at depth and it was unknown to be entangled by the longliner crew. When it broke surface entangled by the teeth in the lower jaw the ground line was cut allowing the animal to pull free. The whale was released alive and gear free.

Other entangled whales

A large dead whale was reported drifting with gillnetting wrapped around its body on the 21st July on St. Pierre bank in area 3PS (Table 3). There is a fairly active gillnet fishery in the area for codfish.

A white beaked dolphin was discovered dead in lump nets on 28 July at Middle Arm in Green Bay (Table 4). Although harbour porpoises are commonly caught in groundfish nets in inshore Newfoundland and Labrador waters (Benjamins et al; 2007) it is rare for white beak dolphins to become entangled. Members of the Whale Release and Strandings Group released a white-sided dolphin alive in 2011 from a herring net (Ledwell et al; 2011)

Basking Sharks

One basking shark was reported to the program in 2011-2012. This animal was discovered dead in cod gillnets off Cape St. Mary's (Table 5).

Strandings

Stranding's reported to the Whale Release and Strandings Group is reported in Table 6. There were various strandings of a single male full grown pilot whale in the area of Terra Nova National Park from the 8 November to the 17 November. The animal was brought out to deep water in the sound on two different occasions by members of the Whale Release and Strandings Group and the Department of Fisheries and Oceans Conservations staff from Clarenville and Glovertown. The whale died on the 17th after the second refloating and carrying out in the bay to 3 nm from last stranding when it shook it's tether and swam off. The whale was necropsied on the 18th November by the Newfoundland and Labrador provincial veterinarians.

Six pilot whales were reported by duck hunters to be at the bottom of a 4nm narrow tickle (Deer Island Tickle) on 18 December. They cautioned that although the animals were swimming in the cove as they would group that they would soon freeze in there and die as the Tickle freezes over and slush ice was already making in areas. The Whale Release and Strandings Group together with a Conservation officer and fast rescue craft from the Glovertown detachment of the DFO arrived in the area on the morning of the 21st December and discovered the mixed what appeared to be a family group of pilot whales in the bottom of the channel in a cove. We proceeded to round up the whales and drive them out. It proved challenging to get them through the various narrow openings in the channel but after 3 hours work we managed to drive them to the open ocean. During the same event a report of whale sounds heard the previous night by residents of

Lockyers Bay, a community in the area of where we had driven the pilot whale group, was forwarded to the WRS Group. We discovered a dead full-grown female pilot whale with a neonatal calf dead nearby. It is thought that the strandings were related

Sightings

Miscellaneous sightings of other than the more common whales are recorded in Table 8. We do not and for consistency of the reporting process of 33 years of similar reports of this type report sightings of humpback whales, minke whales, fin whales white beak, white sided dolphins or harbour porpoises unless they have stranded alive or dead. We do record killer whale reports, as they are important for distribution analysis studies as we do beluga whales and others.

Blue whales

Turr hunters south of Hearts Content Trinity Bay reported 4 blue whales to the Group on 4 March on March 4 of this year. Although one of the hunters was not positive of the I.D. he did know other whales as fin whales and during my conversation with him I feel certain they were blues.

A second sighting on May of this year of a single blue whale was on the Grand Banks on the 8th May (Table 8).

Other

A manuscript “Assessing Changes and Distribution of Large Whale Entanglements in Newfoundland and Labrador” was published in the journal Marine Mammal Science. This manuscript deals with changes to numbers and entanglements of large whales in the throughout the Newfoundland and Labrador Region and can be viewed through the following link.

Protocols for the training, releasing and euthanizing of large entangled and stranded large whales were designed and accepted at a workshop organized and funded by the International Whaling Commission in Provincetown. Mass. Oct. 26-29. by a core group of international large whale disentangles and large whale veterinarians.

The link to the accepted document is. wcoffice.org/_.../IWC64docs/64-WKM&AWI%20Rep%201.pdf

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