



The Ghost Gear Program Overview

Reducing Abandoned, Lost or Otherwise Discarded Fishing Gear In Canada

Presentation by Bernard LeBlanc to
North Atlantic Right Whale Advisory Committee
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Purpose

- Raise awareness of Abandoned, Lost or Otherwise Discarded Fishing Gear (ALDFG, or “ghost gear”) and its impacts
- Provide an overview on the Ghost Gear Fund
- Showcase results and successes from the Program and upcoming activities, including reducing entanglement risk for NARW
- Advise of Hurricane Fiona response measures for Ghost Gear



Ghost Gear Definition

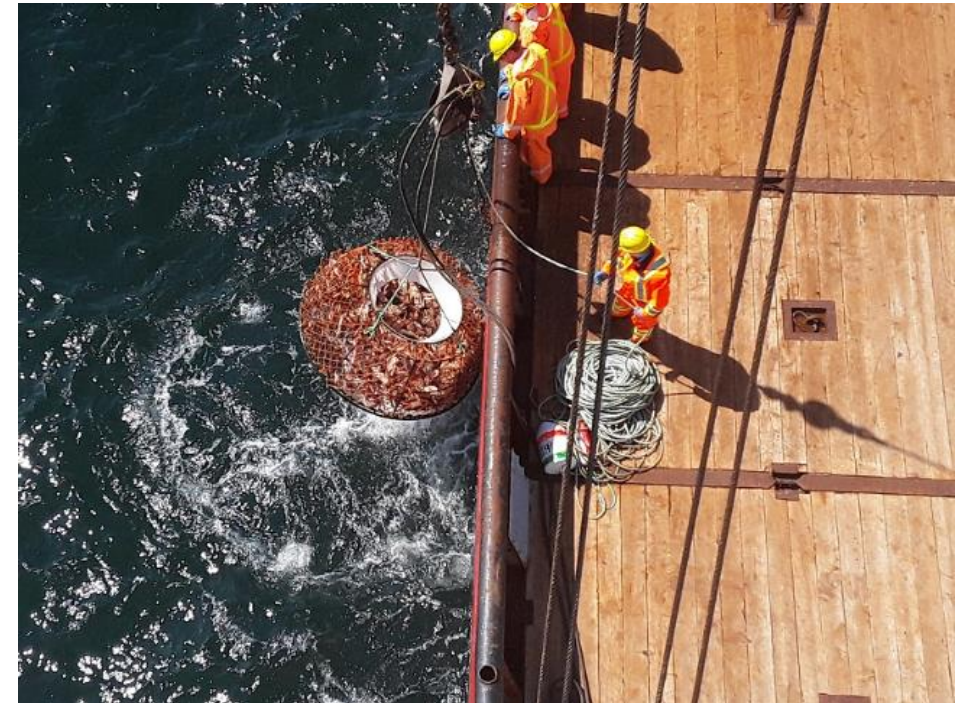
What is “Ghost Gear”?

Defined as any fishing gear that has been **abandoned**, **lost** or otherwise **discarded** (ALDFG).

The causes of ghost gear are commonly rough weather, snags below the surface, unintentional line cutting from marine traffic and gear interactions.

Globally, it is estimated that 600,000-800,000 metric tonnes of ghost gear enter the oceans on an annual basis (UNEP, 2018).

Ghost gear represents 46%-70% of global marine plastic litter by weight (GGGI, 2020).





Impacts of Ghost Gear



What are the effects of Ghost Gear?

Ghost gear has detrimental impacts on the environment, the fishing industry, aquatic ecosystems, and is a threat to marine mammals due to entanglement.

It is a major threat to healthy fisheries and fish stocks. Ghost gear is responsible for population declines of 5% to 30% in global harvestable fish stocks (NOAA, 2015).

Ghost gear is the most harmful form of marine debris to sea life. 90% of species caught in ghost gear are of commercial value (GGGI, 2021).

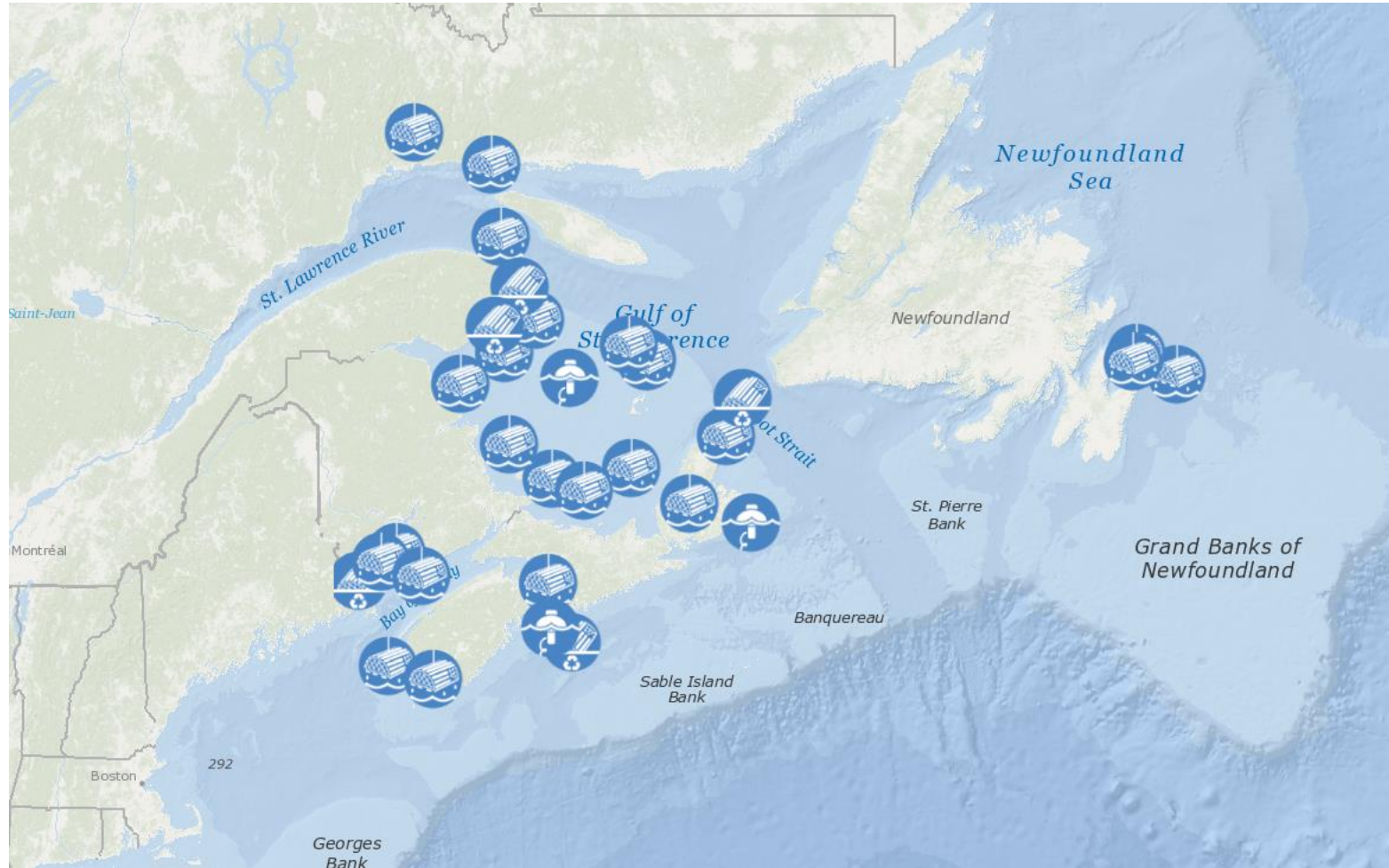


The Ghost Gear Fund

- Intended to support Canada's commitment to prevent and mitigate marine litter, improve fisheries sustainability particularly with respects to Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG)
- Support Canada's commitments nationally and internationally, on efforts to reduce the incidence and effects of ghost fishing
- \$26.7M since 2020 to support projects under 4 themes:
 - **Third party led retrieval of abandoned, lost or discarded fishing gear (ALDFG)**
 - **Gear acquisition and piloting of currently available innovative gear technology to prevent gear loss**
 - **Responsible Disposal**
 - **International leadership**
- 91 projects were funded by the Ghost Gear Program from since 2020, 10 international and 81 domestic.
- \$1.8M in support of Small Craft Harbour projects to establish storage and processing capacity with Harbour Authorities.



Ghost Gear Fund – Project Distribution



For more information on Ghost Gear Fund projects, visit the [DFO Ghost Gear website.](#)



Overview of the Ghost Gear Fund

What it is:

- Stewardship-led program for:
 - ALDFG retrieval
 - Returning retrieved tagged gear to harvesters
 - piloting of technology to reduce ALDFG or mitigate its impacts
 - responsible disposal and upcycling of ALDFG
- All retrieval and piloting activities require a licence under Section 52 of the *Fisheries General Regulations*. Retrieval can only take place during closed fishing seasons
- Data collection to help understand the location and impact of ALDFG in Canada using the new Fishing Gear Reporting System

What it is not:

- An enforcement program
- Opportunistic ALDFG retrieval during active fishing
- Retrieval of ALDFG without proper authorizations
- Development of new gear technologies to prevent ghost gear



Ghost Gear Fund Results – Statistics

Gear retrieval statistics to date (July 2020 – September 2022)

- **901** at-sea, shoreline and aquaculture trips
- **8,632** units of gear retrieved **excludes rope and buoys**
 - 5,616 units of traps/pots
 - 1,130 units of other gear (includes: nets, trawls, longline, seine, troll, and other)
 - 1,886 units of aquaculture
- **168 km** of rope retrieved
- **A total of 1,357 tonnes** retrieved including gear, rope, and aquaculture debris

Return of gear through the Fund (July 2020 – September 2022)

- If the owner of retrieved gear can be identified, they are contacted to inform them that their gear has been recovered. Owners are then given the option to collect their gear or relinquish ownership.
- Gear successfully returned to owner: **341**
- Total number of gear matched to harvester: **542**



Ghost Gear Retrieval and the reduction in risk of NARW entanglement

- A CWF report published in 2021 attempted to draw links between certain tools for reducing the risk of NARW entanglements in Canada – (please note this analysis was for the Snow Crab Fishery only).
- Discussions between DFO and CWF after the report was published led to an estimate that enhanced/targeted/sustained Ghost Gear Retrieval could further reduce the risk by at least 3%
- However, it is important to note that within the CWF analysis a 10% loss of fishing gear value was applied to all areas (i.e., risk that was never removed). This value may actually be lower due to DFO's mandatory lost gear reporting requirements and retrieval efforts of lost gear which could result in a higher value for risk reduction.
- As gear reporting increases, and we can better guide our ghost gear retrieval efforts, larger amounts of ALDFG will be recovered. Along with mitigating the threat to the health of fish and fish stocks, our expectation is that it would further mitigate risks to NARW and other species at risk, while increasing the amount of usable gear returned to harvesters.



ALDFG Retrieval Authority

Wrecked, Abandoned or Hazardous Vessel Act (WAHVA)

- Retrieval work is authorized under WAHVA as ALDFG can be considered a “wreck” based on the definition used in the Act.
- The Minister of Fisheries and Oceans, on reasonable grounds, can take actions to address the “wreck” that may pose a “hazard” as is defined under WAHVA.

Fishery (General) Regulations Section 52 Permitting

- A FGR s.52 permit is required for any retrieval activity of ALDFG
- S.52 permits for ALDFG retrieval will not be limited to funding participants. Any harvester can apply for a s.52 through RM
- All retrieval activities must be supervised by the authorized permit holder and take place when fishing seasons are closed



New Condition of Licence

In 2022, all commercial fisheries in Canada have a new condition of licence relating to the discharge of garbage from fishing vessels. This condition is authorized under the *Fisheries Act* and reads as follows:

The licence holder/operator is prohibited from discarding in Canadian fisheries waters from their vessel any item that may be harmful to fish or fish habitat including but not limited to plastics, ropes, fishing gear, garbage bags, fuel, oil, rags, glass, bottles, metal, extruded polystyrene foam (e.g. Styrofoam), and tires.

Benefits of the Condition

- This new requirement demonstrates Canada's further support for the International Maritime Organization's Marine Environment Protection Committee (MEPC) strategy to address marine plastic litter from ships, and the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex V, which prohibits the discharge of garbage into the sea from ships.
- This condition supports the global recognition for the ecological harm caused by marine pollution; specifically marine plastics.



The Fishing Gear Reporting System and Lost Gear Reporting

What is the [Fishing Gear Reporting System \(FGRS\)](#)?

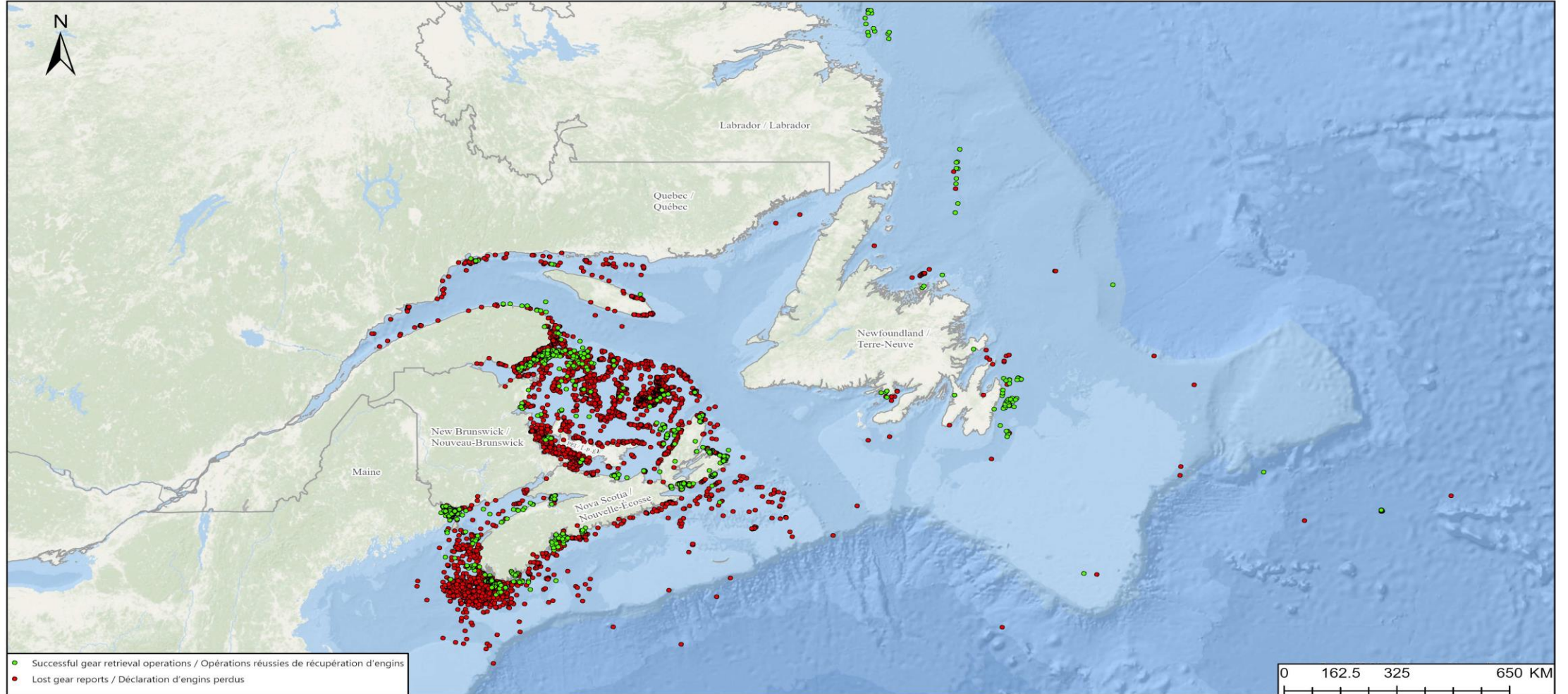
- Launched on July 14, 2021, the Fishing Gear Reporting System is an online system that allows commercial harvesters to conveniently report lost gear by inputting a description of the gear, the cause of loss, and its location from any online device.
- In 2018, mandatory reporting of lost gear was introduced in several commercial fisheries in Canada. The mandatory requirement to report lost fishing gear was expanded in 2020 to all commercial fishing licences in Canada.

Benefits of the tool

- Increased reporting of lost gear helps DFO to generate accurate gear loss hotspots maps and trends, guiding more effective retrieval efforts and locate high-priority areas.
- More effective retrieval will result in larger amounts of ALDFG recovered, which will be returned to its original owner if tagged and in good condition. As of September 30th, 11,446 lost gear reports have been submitted, reporting 42,173 units of gear, 140 km of nets, and 513 km of rope lost **note - these statistics also include reports from the hurricane Fiona aftermath that came in by September 30th*



Locations of Lost and Retrieved Fishing Gear on the Atlantic Coast: 2020-04-01 to 2022-03-31
Lieux des engins perdus et engins de pêche récupérés sur la côte Atlantique: 2020-04-01 to 2022-03-31



Date Created / Date Créée: 2022-09-01

Prepared by the Atlantic Marine Mammal Hub
Préparé par le Centre d'expertise sur les mammifères marins de l'Atlantique





Reporting Requirements

- While we are encouraged by the reporting we are receiving, there is still work to be done
- It is critical that lost gear be reported so we can better understand which areas need more focus
- Since its addition as a condition of licence in 2020, lost gear reporting is now a requirement, however there are still areas with low lost gear reporting.
- Harvesters are reminded that reporting of lost gear is a legal obligation under subsection 22 (1) of the *Fishery (General) Regulations* (FGR) and that failure to comply with this licence condition is subject to a fine, as specified in subsection 43.4 (1) of the *Fisheries Act*.
- **To request an in-depth demo on how to use the FGRS, please contact your regional Ghost Gear Coordinator**



Hurricane Fiona Response

- Harvesters are starting to understand and report the full scale of gear losses to the department through the Fishing Gear Reporting System.
- Since Hurricane Fiona, 335 lost gear reports have been submitted from affected areas, reporting 1,567 units of gear, 100 km of nets, and 85,441 ft of rope lost **reports from Sept 23rd to Oct 14th*
- 1.5M in emergency funding has been allocated towards immediate cleanup and recovery efforts of the hardest hit areas through Ghost Gear Fund projects
- [A call for proposals](#) to support ghost gear efforts to reduce the impacts from Hurricane Fiona in 2023-2024 is now open, with DFO providing up to 28.4M in funding. Interested proponents will be required to submit an application by **December 28, 2022 23:59 PST to be considered.**



Next Steps: 2022-2027

- Over the next few years, a focus of the department will be modernizing Canada's domestic fisheries operations and regulatory regime to help better address ghost gear.
- DFO has received 25M over the next 5 years to enhance the Ghost Gear Program through improvements to data collection, lost and retrieved gear reporting systems, a regulatory review, and promotion of sustainable gear and best practices. The focus will include:
 - Make improvements to functions in the Fishing Gear Reporting System (FGRS)
 - Carry out a full regulatory review and assessment process to address impediments to ghost gear retrieval and strengthen preventative measures;
 - Determine gear types that are of concern on an area-by-area basis and carry out a review of Canadian fisheries management practices
- DFO's overarching priority outcome is that **Marine pollution from ghost gear is prevented and reduced.**



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Thank you!