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A ROAD TO RECOVERY FOR NORTH ATLANTIC RIGHT WHALES



AN OCEANA CANADA DISCUSSION PAPER

The plight of the North Atlantic right whale (NARW) urgently demands that we develop and implement enduring solutions that protect whales and allow their population to recover while allowing Canadians to make a living on the water. The time has come to make the transition to a programmatic approach that:

- Is **permanent** in nature, operating a predictable annual cycle of planning and action;
- Provides **certainty** around decision-making systems to allow NARW protection and recovery to focus on management actions and strategies rather than process and governance matters;
- Is **inclusive** of all relevant stakeholder in NARW protection and recovery to allow their equal engagement in information sharing, joint actions and contributions to decision-making commensurate with their capacities and interests;
- Features full **transparency** to promote a focus on what to **do** in response to what data and information are telling us and not on who has it or how to gain access to it; and,
- Demonstrates **adaptability** to respond to changing whale behaviour, growth in our understanding of whales or any other changes in circumstances affecting the program.

Such an approach would include:

- New, purpose-built regulations to establish a legal footing specifically for NARW protection and recovery;
- A fully funded, proactive long-term research and monitoring program and;
- An innovative new approach to fostering and supporting information sharing and collaborative action amongst the variety of parties with interest in NARW protection and recovery.

This discussion paper has been developed as a contribution to the development of a consensus around the need for such an approach and a path forward for putting it into action. The paper will be shared widely within the NARW protection and recovery community and iteratively refined over the coming months to illuminate clear areas of broad agreement and to describe divergent viewpoints where they exist. It is hoped that a finalized version of the paper could serve as a widely supported blueprint for collective action over the long term.

Context

The North Atlantic Right Whale population is heading for extinction

The North Atlantic right whale (NARW) population is in crisis. Their population was once abundant, with a historical population ranging from 9,000 to 21,000 animals, but commercial whaling decimated their numbers to fewer than 100 animals until a ban on whaling in 1935. After a slow increase to over 450 animals in 2010, the population again started to decline. This was exacerbated by at least 34 animals being killed by human actions between 2017 – 2021. In 2020 the International Union for Conservation of Nature (IUCN) changed the classification of right whales to critically endangered – which means that there is an immediate risk of the species going extinct in the wild. The most recent population estimate is that there are only about 330 right whales left. If the decline of the population is not urgently halted and reversed, the species will go extinct in our lifetime.

Threats to North Atlantic right whales

The two greatest threats facing North Atlantic right whales are vessel strikes and entanglement in fishing gear. When a vessel collides with a whale, the results are often fatal. In some cases, whales are sliced by propellers; in other cases, they are killed by blunt force trauma. Fishing gear also poses a serious threat. It can wrap around the whale's mouth, fins and tails, cutting into their flesh and bones. Often, the whale ends up towing this heavy gear for months. If the whale cannot free itself, it dies a slow and painful death

Why it matters

Allowing the NARW to slide into extinction is unacceptable and not in keeping with the strong ties to nature integral to the Canadian identity. Canadians expect their government to do the right thing for whales. According to polling conducted by Abacus in April 2021, 90 per cent of Canadians feel that it is important for the government to protect right whales. And thousands of Canadians have signed petitions calling on the government to take action to protect right whales.

The decline of the NARW *poses a substantial market access threat for Canadian fisheries* seeking to export products to the United States. Section 1371.2 of the United States Marine Mammal Protection Act stipulates that:

"The Secretary of the Treasury shall ban the importation of commercial fish or products from fish which have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of ocean mammals in excess of United States standards. For purposes of applying the preceding sentence, the Secretary— (A) shall insist on reasonable proof from the government of any nation from which fish or fish products will be exported to the United States of the effects on ocean mammals of the commercial fishing technology in use for such fish or fish products exported from such nation to the United States;

Two of Canada's most valuable fisheries, lobster and snow crab (worth a combined \$4 billion CAD annually), use gear methods that unintentionally entangle right whales. It is a real possibility that now, or in the future, these fisheries could lose access to markets in the United States.

The Port of Montreal, the Atlantic elements of the Canadian shipping industry and international ship operators continue to face considerable *operational and financial risk and uncertainty* as a direct result of current NARW protection measures. The industry and its regulators have been consistent in their commitment to taking measures to reduce vessel strikes. However, there are no formalized long-term arrangements in place regarding whale-related vessel speed or navigation requirements around which the industry and related Port operations can predictably plan shipping routes, schedules and other key operational parameters.

Canada's *international reputation as a conservation leader* is at stake regarding its management of the NARW situation. Maintaining the credibility necessary to backstop this international leadership posture requires that Canada take clear and assertive measures possible to protect its own biodiversity, particularly critically endangered species such as NARW. While the Government has devoted substantial emergency resources and regulatory attention to NARW on an annual basis in recent years, the absence of permanent measures risks undermining this global credibility.

Implementing solutions

Canada's challenge is to develop and implement solutions that protect whales while allowing the shipping and fishing industries to function in a profitable and efficient manner. The operational challenges which stand in the way of such solutions are significant, but not insurmountable.

- Right whales are difficult for vessel operators to see and avoid. Reducing vessel speeds to reduce the risk of collisions occurring in the first place and the risk of mortality when they do occur has operational implications, but ones that can be incorporated into voyage plans if they are predictable and mandatory.
- Re-routing vessel traffic to avoid whales is challenging when the location of whales is unknown and/or shifting. Improvements in monitoring technology continue to make this more feasible, however.
- Equally, technologies for operating the crab fishery with ropeless gear have yet to be widely deployed in Canada, but this innovation presents an important opportunity to reduce risk for whales.
- Dynamic fishing zones which shift fishing activity based on the presence of whales present their own operational uncertainties and costs, again however, improvements in monitoring technology will likely make these zones more targeted and responsive.

In short, obstacles to NARW protection are substantial, but there are tools in the government's toolkit which are effective and which continue to improve.

Build on the important steps already taken to protect right whales

The problem of right whale protection is by no means being ignored. Federal leadership from the Ministers of Fisheries and Oceans and Transport and their departments has been ongoing and has involved actions such as annual roundtables involving stakeholders, significant research and monitoring investments, changes to fisheries management regimes and the adoption of a range of shipping navigation measures. The shipping industry has consistently come to the table with constructive insights and action plans for minimizing vessel strikes through reduced speed zones and alternate traffic management systems. The fishing industry has been equally active in the dialogue and in taking tangible steps on the water to shift harvesting times and locations and to experiment with ropeless gear and other adaptive responses. University researchers and networks have been major contributors to the knowledge base driving protection and recovery efforts. The ENGO community has been a substantial player in supporting these activities while contributing its own advice, expertise, on-the-water assistance and policy leadership across the board.

Yet the population continues to decline, certainty for industry remains elusive and long-term NARW research, monitoring and management programs are yet to be established.

Annual measures put in place to minimize vessel strikes appear to be working; there were no known vessel strikes in 2018, 2020 or 2021 in Canadian waters. While this is a positive short-term outcome, no permanent (adaptable) measures have been established to regulate vessel traffic speed or routes to protect whales. Likewise, no permanent measures have been established to ensure fishing activity avoids whale foraging areas or to mandate the use of ropeless gear. Government-led whale surveillance and research activities do not have long-term funding, have not deployed new monitoring technologies on a widespread or permanent basis and have not led to the retention of permanent research and monitoring staff. No governance

bodies or mechanisms exist to bring regulatory agencies, shipping and fishing industry leaders, indigenous groups, academia and civil society together to share information and engage in collaborative decision making and joint action. Vessel operators still cannot plan routes with the months of advance certainty they need, and the fishing industry remains vulnerable to unanticipated harvest regulations as well as US trade restrictions under the Marine Mammal Protection Act (MMPA).

This situation is sub-optimal for the shipping and fishing industries and for the long-term recovery of this critically endangered species.

A permanent protection and recovery program is needed

The yearly passage of right whales into the Gulf of Saint Lawrence is a relatively new phenomenon, so it is not surprising that a program of this nature has yet to be formalized. Virtually every resource conservation program evolves through a process of trial and error as it responds to emerging information, lessons learned and the interests of a range of actors. The last four years of concerted NARW protection and recovery work have provided important data and lessons regarding what a long-term protection framework can look like. A key learning from this experience is that NARW protection and recovery can no longer be treated as an “annual crisis” to be managed if and when whales appear. It is clear that the challenges facing NARWs are not short-term in nature. They are long-term dynamics that require long-term responses. The time has come to transition away from ad hoc measures in favour of a permanent framework which, while still allowing for flexible responses, will provide predictable baseline protections.

The objective of an effective NARW protection program is to develop and implement solutions that protect whales while allowing the shipping and fishing industries to function in a profitable manner.

Central to this framing is the assumption that fishing, shipping and NARW can co-exist in Canada and continue to exist and adapt as populations numbers increase. This approach aligns with a Blue Economy mindset and speaks to a broader sustainability paradigm rather than narrowly conceived protection measures.

To be effective, this new program would:

- Be **permanent** in nature, operating a predictable annual cycle of planning and action;
- Provide **certainty** around decision-making systems to allow NARW protection and recovery to focus on management actions and strategies rather than process and governance matters;
- Be **inclusive** of all stakeholders in NARW protection and recovery to allow their equal engagement in information sharing, joint actions and contributions to decision-making commensurate with their capacities and interests;
- Feature full **transparency** to promote a focus on what to **do** in response to what data and information are telling us and not on who has it or how to gain access to it; and,
- Demonstrate **adaptability** to respond to changing whale behaviour, growth in our understanding of whales or any other changes in circumstances affecting the program.

A program of this nature would feature three mutually supportive elements: Regulations, Research and Monitoring; and an Information Sharing and Collaboration mechanism.

REGULATIONS

Today's legal footing for NARW protection and recovery in Canada includes:

- The *Canada Shipping Act* measures consisting of an interlaced set of interim orders that are passed, repealed, and then re-issued on an annual basis to establish a mix of ship speed restrictions and different navigation zones in effect for specific time periods within a particular year.
- *Fisheries Act* measures establishing seasonal fisheries closure zones in areas where whales "are detected to be aggregating" coupled with a series of fisheries notices used to close certain grids on the authority of a Regional Director General, DFO if whales are detected in the area.
- The *Species at Risk Act* under which an action plan for right whales was finalized in 2020. Although SARA stipulates that "No person shall kill, harm, harass, capture or take an individual of a wildlife species that is listed as an extirpated species, an endangered species or a threatened species" this prohibition has not stopped whales from being killed in Canadian waters. Thus, while this legislative backstop is important, it has done little to advance whale protection and recovery

Temporary measures to protect NARW using the provisions of the *Canada Shipping Act* and *Fisheries Act* were first deployed in 2017 on a *de facto* emergency basis to respond to a high number of whale deaths. Similar measures deployed in 2018, 2019 and 2020 built on this initial starting point as more was learned about evolving right whale behaviour and the efficacy of different measures to protect them. However, none of these tools were purpose built to protect right whales on a long-term basis. Rather, they are necessary but *ad hoc* manipulations of regulatory tools designed to manage shipping and fishing, not to protect *and recover* whales. There is no certainty that they will be in place in 2022 or beyond. Yet the challenges to right whale survival in Canadian waters will continue, meaning that ongoing tools to address these threats are critical. The time to transition to a stable program supported by a firm legal foundation is now.

Three immediate regulatory measures would go a long way to solidifying such a foundation:

1. Section 136(f) of the *Canada Shipping Act* authorizes the development of regulations for "regulating or prohibiting the navigation, anchoring, mooring or berthing of vessels for the purposes of promoting the safe and efficient navigation of vessels and protecting the public interest and the environment".

Flowing from this mandate, the creation of a **NARW Protection Regulation** would require the Minister of Transport to develop and implement measures specifically designed to ensure that shipping traffic in areas frequented by NARW (Gulf of Saint Lawrence, Bay of Fundy, Strait of Belle Isle region) takes all reasonable measures available to drive the risk of vessel collisions with whales to zero. A regulation with this specific purpose would mandate the establishment of vessel traffic management zones needed to avoid whales and require vessel speed restrictions be in place in these zones or more broadly. The regulation would stipulate that the number and precise boundaries of such zones could be varied annually but that the regime would remain in place until such time as the regulation is repealed. The regulation would also include provisions to

allow the Minister to require the use of whale detection and avoidance systems or technologies by vessel operators should they become widely available in a form suitable for installation on individual vessels. Finally, the regulation would include a provision that all financial fines or penalties levied against any violator of the regulation would be directed to the NARW Protection and Recovery Fund (described below or to NARW related programming).

2. A new **NARW Protection and Recovery section of the Marine Mammal Protection Regulations** under the *Fisheries Act* would make it an offence to carry out fishing activities using fishing gear that could entangle NARW in areas that such whales are known to be present in, or are highly likely to be present in. It would require the Minister of Fisheries to identify NARW protection zones in which NARW are known to occur on an annual basis and establish mechanisms for closing such zones to fishing on a dynamic basis as whales are sighted in the area much as occurs today. The new provisions would stipulate that the number and precise boundaries of such zones could be varied annually but that the regime would remain in place until such time as the regulation is repealed. The new provisions would stipulate that fishing using gear tethered to the surface would be prohibited as of the 2026 fishing season and would authorize the Minister to waive licence fees for any fishing enterprise using ropeless gear in the years prior to the prohibition coming into effect. Finally, depending on the broader national or regional needs of DFO, it may make more sense to frame these provisions as being for general whale protection and recovery rather than specific to right whales, to allow for similar measures to be implemented for other species or other species that may be at risk in the future.
3. **Section 53 of the *Species at Risk Act*** authorizes the Minister to establish regulations necessary to implement the terms of an action plan for an Endangered Species should the Minister reach a conclusion that such regulations are needed for the successful implementation of the Action Plan.

Flowing from this mandate, a new NARW Protection and Recovery Regulation under SARA would be established to give legal support to those elements of the NARW Recovery Strategy and Action Plan not addressed by the measures described above. Most importantly, they would require the Minister to establish and operate a NARW monitoring and surveillance system of sufficient geographic coverage and featuring the real-time data reporting systems needed to support the two regulatory measures described above. As a companion to this requirement, the regulation would also authorize the Minister to enter into any partnership arrangements deemed necessary for the establishment and operation of a system of this nature and to transfer funding to partners in this context. It would require the Minister to share all data acquired by this system within a suitable period of time. It would authorize the Minister to create a new NARW Protection and Recovery Fund to support ongoing NARW protection and recovery efforts and stipulate that such a Fund would be operated either by DFO or a third party designated by the Minister. It would authorize the Minister to make contributions to such a Fund at any time and to establish Fund operating procedures that would allow any other party to contribute to it at any time. The new regulation would

authorize the Minister to establish any governance or advisory bodies that would facilitate NARW protection and recovery efforts.

RESEARCH AND MONITORING

The existing DFO model for fisheries management related research and monitoring programs offers insight into the nature of what is required to support an effective NARW protection and recovery regulatory program. On an annual basis, DFO carries out stock surveys designed to support stock assessments, which in turn lead to fishery allocation decisions. In addition, fishery managers identify an annual list of research questions requiring attention to support management objectives. These questions, coupled with the additional areas of inquiry identified by researchers themselves, form an annual research agenda for the science arm of the department. Much of the research work is multi-year in nature and remains on the agenda accordingly but the research plan and priorities are re-visited and updated annually. The resultant research agenda is also loosely supported by research work undertaken in academia via various networks established over the years.

A regulatory program as described above will require a similar approach to research and monitoring. The federal response to the NARW situation has already led to the generation of elements of such an approach. Important work on specific whale biology and expanded use of monitoring technologies have already been completed, and future work is planned. A regulatory regime of the nature outlined above would necessitate the formalization of these *ad hoc* initiatives into a longer-term programmatic approach. Critical to its functioning will be long-term funding.

The content of this research and monitoring program is too broad and detailed in nature to be outlined here. In general terms, it would likely include the establishment of a **long-term whale surveillance program**, the **broader deployment of new monitoring technologies such as permanent hydrophone arrays and glider fleets** and the **establishment of a permanently staffed research team to drive the work**. Importantly considerable work has already been done around the development of a NARW research and monitoring agenda. This work nicely illustrates the fact that NARW research and monitoring involves a much broader suite of players than is commonplace in the traditional fisheries management world. For example, the NARW Consortium brings together researchers from across eastern Canada and the United States while the Ocean Tracking Network based out of Dalhousie University delivers and connects a wide range of NARW monitoring activity.

Problematically however, there is currently no venue through which to coordinate the design and collective delivery of a cohesive and resource efficient research and monitoring program capable of supporting the regulatory approach described above. Perhaps more importantly, there is no venue for regular and co-ordinated sharing of research and monitoring results, tying them into management actions and articulating future research and monitoring needs to support further management action.

INFORMATION SHARING AND COLLABORATION

The establishment of a structured, formal approach to fostering and supporting information sharing and collaboration amongst the many people and organizations with interests in North Atlantic right whale protection and recovery in Canada will give the species a greater chance of survival. The NARW Recovery Network, established over ten years ago, played this role to

some degree, and heavily informed the development of the NARW Recovery Strategy and Action Plans. Recently, the Canadian Wildlife Federation has been informally convening many of the same players around current and future collaboration. Similarly, Transport Canada and the shipping industry have been using a variety of mechanisms to develop management solutions designed to reduce vessel strikes. DFO operates several technical and advisory consultative mechanisms to engage the fishing industry in similar dialogues with respect to entanglement and other fisheries entanglement issues. Several academic networks have convened NARW research seminars and are working to develop additional NARW research. The NARW Consortium continues to drive trans-national information sharing and collaboration. Two ministerial roundtables have also helped to advance joint action in recent years.

What this range of mechanisms makes clear is that effective species protection and recovery must be a team effort. No single agency, university, environmental group or industry sector can reasonably be expected to achieve right whale protection and recovery on its own. However, to a considerable degree, the problem for NARW protection and recovery in Canada is not a lack of team players or team spirit. Rather, it is the absence of anywhere for them to come together to play. NARW protection and recovery needs a venue for everyone to come together and to exert agency in support of collective goals. A collaborative mechanism of this nature could be styled to draw upon the traditional indigenous approach of a collaborative circle. With a working title of the NARW Protection and Recovery Circle it could, *inter alia* serve as a forum to:

- Foster dialogue and collaboration amongst all parties with interests in NARW protection and recovery;
- Facilitate information sharing amongst the parties with respect to whale biology, research and monitoring results, management measures and the activities of the parties in the Gulf and the Bay of Fundy region;
- Identify and act upon opportunities for collaborative research, monitoring, management, communications or outreach projects or other activities;
- Contribute to the regulatory and other decision-making process of the government agencies charged with implementing the regulatory package described above.

Its establishment could draw on the lessons learned in similar venues in fisheries and wildlife management elsewhere in Canada and the inroads made by the NARW Recovery Network created under the SARA banner. To be successful, it would need to invite all organizations with interests in NARW to sit around the circle as equal participants, each committed to advancing NARW protection and recovery goals. As noted above, many interests are already engaging in similar work; this would be a formalization of that work and a venue to put knowledge into action.