

# Ocean Recommendations for Federal Election Platforms

July 2021

Submitted by:



# Introduction

The global ocean is critical to all life on Earth. A healthy ocean provides a wide range of essential goods and services that benefits Canadians, from the air we breathe to the food we eat—not to mention the \$31 billion that ocean-based industries directly contribute to the Canadian economy per year.<sup>1</sup> As noted by the High Level Panel for a Sustainable Ocean Economy<sup>2</sup> and in Canada’s Blue Economy Strategy engagement paper,<sup>3</sup> a sustainable and prosperous ocean economy requires healthy and biodiverse ocean ecosystems. Yet ocean health continues to deteriorate, putting coastal communities and livelihoods in jeopardy and furthering the biodiversity crisis.

Fish stocks are under heavy pressure from overfishing and destructive fishing practices. Pollution is flooding the ocean, and biodiversity loss has reached a critical level globally, with around one million species facing extinction.<sup>4</sup> In Canada alone, threatened species declined an average of 59% from 1970 to 2016.<sup>5</sup>

In order to halt and reverse the climate emergency and biodiversity crisis, Canada must both meet its current international commitments and increase its ambition to restore ocean health. The ocean has a critical role in addressing these twin crises, as addressed in detail in the 2019 reports by the Intergovernmental Panel on Climate Change (IPCC)<sup>6</sup> and the International Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).<sup>7</sup>

Internationally, Canada has already made many commitments linking climate and ocean that can translate into national climate commitments under the Paris Agreement. These include signing onto *Because the Ocean* declarations in 2015 and 2016, joining the *Friends of Ocean Action High Level Panel* in November 2018 and signing the Leaders Pledge for Nature in 2020. The 2019 *Because the Ocean* strategy report, *Ocean for Climate*, was written to assist signatory nations like Canada in integrating ocean-based mitigation and adaptation actions with their climate commitments.<sup>8</sup> Key priorities for Canada include ensuring that our ocean industries and Blue Economy Strategy support goals towards net zero by 2050, reducing emissions from marine vessels, including ferries and fishing vessels, and advancing nature based solutions in the marine environment.

---

<sup>1</sup> <https://www.dfo-mpo.gc.ca/campaign-campagne/bes-seb/index-eng.html>

<sup>2</sup> <https://www.oceanpanel.org/>

<sup>3</sup> <https://www.dfo-mpo.gc.ca/about-notre-sujet/blue-economy-economie-bleue/toolkit-trousse/engagement-paper-document-mobilisation-eng.html>

<sup>4</sup> Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). (2019). Global Assessment Report on Biodiversity and Ecosystem Services.

<sup>5</sup> WWF-Canada. (2020). Living Planet Report Canada: Wildlife At Risk [https://wwf.ca/wp-content/uploads/2020/09/WWF-7-x-9-LPRC\\_Web.pdf](https://wwf.ca/wp-content/uploads/2020/09/WWF-7-x-9-LPRC_Web.pdf)

<sup>6</sup> IPCC, 2019: Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [Pörtner et al.(eds.)]. In press.

<sup>7</sup> IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Díaz, et al. (eds.). IPBES secretariat, Bonn, Germany. 56 pages.

<sup>8</sup> The five areas in the report including: encouraging natural carbon sequestration by coastal ecosystems; developing a range of sustainable ocean-based renewable energy solutions; promoting adaptation and resilience solutions for vulnerable populations, ecosystems and ecosystem services threatened by climate change; implementing hybrid solutions supporting both adaptation and mitigation in the fisheries and aquaculture sector; and, solutions in the shipping sector.

As the impacts of climate change, biodiversity loss, and pollution disproportionately affect Indigenous, Black, and racialized communities, protecting and restoring ocean health is as much a social priority as an environmental one. Ocean protection can advance reconciliation, support equitable governance of resources, and ensure the durability and effectiveness of protected areas.

Public opinion polling consistently shows that Canadians are concerned about the health of the ocean and strongly support more ambitious ocean conservation measures. Abacus Data research in 2019 found that a combined 75% of Canadians feel the health of Canada's oceans is highly important to them, and Environics polling showed that 92% of Canadians support ocean protection to reduce human impacts on the marine environment.<sup>9</sup>

We offer the following recommendations for platform commitments during the next election and urge all political parties to further assume and commit to global leadership on ocean conservation and management:

## **A. Rebuild and transform our sustainable seafood supply**

- Invest in the protection, management, and recovery of fish populations
- Implement full-chain traceability to stop seafood fraud and illegal, unreported, and unregulated fishing and improve market access and transparency
- Ensure sustainable aquaculture

## **B. Protect and restore coastal and marine biodiversity**

- Safeguard ocean ecosystems through effective marine protection
- Support Indigenous-led conservation
- Protect marine species at risk

## **C. Reduce key threats to ocean ecosystems**

- Eliminate plastic pollution
- Support an international moratorium on deep-sea mining
- Reduce noise disturbance and pollution from marine industries

## **D. Address the ocean-climate nexus**

- Supporting a Just Transition from offshore oil and gas.
- Reduce GHG impacts from marine shipping
- Support marine nature-based climate solutions

---

<sup>9</sup> Environics. (2019). Public Opinion on Marine Protected Areas. Report commissioned by Canadian Parks and Wilderness Society, David Suzuki Foundation, West Coast Environmental Law, and WWF-Canada.

## A. Rebuild and transform our sustainable seafood supply

### Invest in the protection, management and recovery of fish populations

Canada's marine fisheries are in crisis. Only 34% of our stocks can confidently be considered healthy, while 13% are in the critical zone, and we don't have enough data on 37% of stocks to assign them a status.<sup>10</sup> Of the 26 critical stocks, only five<sup>11</sup> have rebuilding plans. Targeted fisheries continue on populations that have been determined to be endangered. Wild fish stocks remain depleted decades after collapse and we are in the vulnerable position of being dependent on only a handful of species. The most recent data shows that more than 50% of the value of Canada's \$6.9 billion fishing industry is dependent on three species, two of which are crustaceans and one of which is farmed.<sup>12</sup>

As Canada looks to recover the economy post-COVID-19, rebuilding fish stocks to healthy levels should be a central focus of any oceans-based plan to add revenue and jobs to coastal communities. In the United States, the *Magnuson-Stevens Act* has some of the most stringent and effective legislation in the world that mandates rebuilding. It was created in 1996 and strengthened in 2006. By 2010, the U.S. had made significant progress toward rebuilding stocks, and 28 of the most successful examples of this generated 54% more revenue compared to when they were overfished.<sup>13</sup> As of 2019, the U.S. has successfully rebuilt 47<sup>14</sup> fish stocks, resulting in more resilient ecosystems and greater economic opportunities for the fishing industry.

A failure to clearly define targets and timelines for rebuilding in the draft regulations introduced to support the renewed *Fisheries Act* means that we will miss out on the economic benefits of rebuilding.

### Recommendations:

- A1.** Complete rebuilding plans by 2024 for the 26 stocks currently in the critical zone. These plans should meet international best practices by including measures and objectives that are science and ecosystem based. Strong targets and timelines for rebuilding stocks out of the critical zone are needed. Targets should be set according to reference points that are based on clear, objective criteria and scientific information. As a priority, rebuilding efforts should focus on forage fish and a moratorium should be put in place for any new fisheries for forage species.

---

<sup>10</sup> Oceana. 2018 Fishery Audit 2018: Unlocking Canada's Potential for Abundant Oceans. <http://fisheryaudit.ca/>

<sup>11</sup> DFO. 2019 Sustainability Survey for Fisheries. <http://www.dfo-mpo.gc.ca/reports-rapports/regs/sff-cpd/survey-sondage/index-en.html>

<sup>12</sup> DFO reports that Canada's top three species exported globally in 2017 were lobster (\$2.1 billion), snow/queen crab (\$1 billion), and Atlantic (farmed) salmon (\$909 million). DFO. 2017 trade figures: Canadian fish and seafood exports continue to grow. <https://www.canada.ca/en/fisheries-oceans/news/2018/03/fisheries-and-oceans-canada-releases-2017-trade-figures-canadian-fish-and-seafood-exports-continue-to-grow.html>

<sup>13</sup> NRDC: How the Magnuson-Stevens Act is helping to rebuild US fish stocks <https://www.nrdc.org/sites/default/files/magnuson-stevens-act-rebuild-us-fisheries-fs.pdf>

<sup>14</sup> <https://www.fisheries.noaa.gov/national/sustainable-fisheries/status-stocks-2019>

- A2.** Allocate funding to fill knowledge gaps for all stocks, with a priority placed on stocks whose status is uncertain and where stock assessments have not been completed within a five-year period. Funding must focus on field surveys, assessments, mortality estimates and monitoring and evaluation of rebuilding plans and management measures.
- A3.** Commit to timely and transparent access to fisheries management plans and data as well as records of fisheries management advisory committee processes in order to more effectively involve Indigenous peoples, civil society and communities in the process of managing our fisheries as public resources.

### **Implement full-chain traceability to stop seafood fraud and illegal, unreported and unregulated fishing and improve market access and transparency**

Seafood is one of the most highly traded food commodities in the world, with notoriously complex and opaque supply chains. In Canada, seafood supply chains lack transparency, which poses health risks, results in millions of dollars lost from the legitimate economy, and perpetuates unsustainable production, human rights abuses, and destructive illegal, unreported and unregulated fishing.

There is now a global push toward harmonized traceability and labelling in seafood supply chains to ensure safe, legal and accurately labelled seafood. However, Canada is falling behind jurisdictions such as the European Union, United States and Japan. Canada's current requirements for "one-up, one-down" traceability and the lack of product information on a label, particularly the scientific name and location and method of harvest, are not sufficient to safeguard buyers.

Global best practices exist; Canada does not need to reinvent the wheel, but rather build a framework that is interoperable with existing traceability systems. Traceability has significant potential benefits for Canadian sellers, especially as a way for small-scale fishers to distinguish their product by increasing the transparency of their brand. However, failing to establish a uniform, regulation-based traceability standard is placing Canadian industry at risk of meeting a growing regulatory burden of complying with multiple, piecemeal traceability systems or losing global market share.

### **Recommendations:**

- A4.** Establish and invest in a multi-departmental task force to ensure all relevant departments work together to develop – in line with global best practices – catch documentation requirements and a full-chain traceability framework within an ambitious timeline for all seafood caught, harvested, or sold in Canada.
- A5.** Improve seafood labelling standards to require the scientific species name, whether the seafood product was wild-caught or farmed, its geographic origin or harvest location and the harvest method on all retail labels, as is required in the European Union.

## Ensure sustainable aquaculture

A large body of research demonstrates that even with the existing regulatory requirements, open net-pen fish farms are negatively affecting wild fish and marine ecosystems. Environmental impacts of open net-pen aquaculture include but are not limited to: transmission of pathogens such as sea lice from farmed to wild fish with potentially lethal effects; pollution of the marine environment through feces, excess feed, anti-foulants, medication, toxic pesticides and farm debris; and the escape of farmed fish that threaten vulnerable populations of wild Pacific and Atlantic salmon.

Coastal communities on both the Atlantic and Pacific continue to have rural economies highly dependent on a pollution-free marine environment. The commercial lobster fishery, wild salmon fishery, and the tourism industry support thousands of families.

Alternatives to the current aquaculture production model exist and are gaining momentum around the world through investment in land-based closed-containment farming of finfish and restorative aquaculture of seaweed and bivalves. With the right regulatory environment and strategic incentives, Canada has the potential to be a leader in these emerging industries and create a truly sustainable aquaculture industry that serves communities and marine ecosystems.

### Recommendations:

- A6.** Work with Indigenous and provincial governments to phase out open net-pen finfish aquaculture in Pacific waters by 2025 and all Canadian waters by 2030. Support retraining of impacted workers and incentivize the move to land-based closed containment facilities.
- A7.** Support sustainable shellfish and seaweed aquaculture and community-owned operations and ensure community and stakeholder input when making aquaculture siting decisions.

### Contacts:

Shannon Arnold, Ecology Action Centre, [sarnold@ecologyaction.ca](mailto:sarnold@ecologyaction.ca)  
Kilian Stehfest, David Suzuki Foundation, [kstehfest@davidsuzuki.org](mailto:kstehfest@davidsuzuki.org)  
Susanna Fuller, Oceans North, [susannafuller@oceansnorth.ca](mailto:susannafuller@oceansnorth.ca)  
Kim Elmslie, Oceana Canada, [kelmslie@oceana.ca](mailto:kelmslie@oceana.ca)

## B. Protect and restore coastal and marine biodiversity

### Safeguard ocean ecosystems through effective marine protection

Marine protected areas (MPAs) are an essential tool for halting biodiversity loss, restoring ocean health, and increasing the resilience of ocean ecosystems in the face of climate change. The most effective MPAs are fully protected, well-managed, and provide the long-term protection needed for populations to recover.<sup>15</sup> There is a growing body of scientific work indicating that protecting at least 30% of the world's ocean by 2030 may restore ocean health by 2050. Polling has repeatedly shown that Canadians demonstrate almost unanimous support for ambitious marine protection<sup>16</sup> and recognize the benefits of marine protected areas for people and the planet.<sup>17</sup>

Canada has committed to protecting 25% of its ocean by 2025 and 30% by 2030 (30x30) and has taken several steps to galvanize these commitments and impel global agreement on the 30x30 target through the United Nations Convention on Biological Diversity (UN CBD) post-2020 targets. These include joining the Global Ocean Alliance and High Ambition Coalition, endorsing the recommendations of the High Level Panel for a Sustainable Ocean Economy, signing the Leaders Pledge for Nature and seeking agreement with G7 Nations. Most recently, the 2021 federal budget included an historic investment of \$977 million to support Canada's marine protection targets.

### Recommendations:

- B1.** Deliver, by the close of 2023, a new comprehensive ten-year biodiversity strategy and action plan, with goals, measurable targets, and resources to halt and reverse biodiversity loss in the ocean by 2030 and fulfill Canada's commitment to the G7 Nature Compact and UN CBD.
- B2.** Demonstrate international leadership by reaffirming Canada's commitment to strongly protect at least 30% of Canada's ocean territory by 2030 and, by 2022, present a clear action plan to achieve this target that includes: (A) implementation of minimum protection standards;<sup>18</sup> (B) completion of MPA networks and new MPAs in five priority bioregions;<sup>19</sup> and (C) completion of all current proposed MPAs and NMCAs<sup>20</sup> and identify new Areas of Interest in the remaining marine ecoregions and bioregions.
- B3.** Commit permanent "A-base" funding for conservation, including management of MPAs and stewardship of Indigenous Protected and Conserved Areas by Indigenous partners.

---

<sup>15</sup> Edgar, G. et al. (2014). Global conservation outcomes depend on marine protected areas with five key features. *Nature*.

<sup>16</sup> Wright, P., Moghimehfar, F., & Woodley, A. (2019). Canadians' perspectives on how much space nature needs. *Facets*.

<sup>17</sup> Environics. (2019). Public Opinion on Marine Protected Areas. Report commissioned by Canadian Parks and Wilderness Society, David Suzuki Foundation, West Coast Environmental Law, and WWF-Canada.

<sup>18</sup> <https://www.canada.ca/en/fisheries-oceans/news/2019/04/background-new-standards-to-protect-canadas-oceans.html>

<sup>19</sup> Pacific Northern Shelf, Beaufort Sea, Gulf of St. Lawrence, Newfoundland and Labrador Shelves, Scotian Shelf and Bay of Fundy.

<sup>20</sup> Including Fundian Channel-Browns Bank, Southern Strait of Georgia, Western Hudson Bay, Southwestern Hudson Bay and Western James Bay, Eastern James Bay, Les Îles de Madeleine, South Hampton Island, Torngat.

## Support Indigenous-led conservation

Globally, Indigenous Peoples protect up to 80% of the world's remaining biodiversity. At the same time Indigenous peoples are disproportionately impacted by biodiversity loss, pollution and environmental degradation. Canada is no exception. Indigenous nations have been the stewards of these coastal and marine waters since time immemorial. Indigenous-led conservation, and in particular Indigenous Protected and Conserved Areas (IPCAs), will play a key role in reversing biodiversity loss and securing a nature-positive future while meeting Canada's commitments to reconciliation.

### Recommendation:

- B4.** In partnership with Indigenous governments and organizations, develop a National Framework for Indigenous Protected and Conserved Areas that includes collaborative governance arrangements, co-management decision-making bodies, and supporting administrative structures.

## Protect marine species at risk

In Canada, species of conservation concern are first identified by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and protected under legislation by the *Species at Risk Act* (SARA). Currently, 45 commercially targeted or bycatch populations in Atlantic Canada have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), the next step of which is to recommend species for listing under SARA. Once species are listed as Threatened or Endangered under SARA, recovery strategies and action plans must be completed, but only recovery strategies have a legally defined timeline. Examples of marine species listed under SARA include the beluga whale, Southern Resident killer whale, Atlantic salmon, North Atlantic right whale, Atlantic fin whale, Leatherback sea turtle, Northern and spotted wolffish, Atlantic white shark, Northern bottlenose whale, and Northern abalone.

While the pace of listing and drafting recovery strategies has increased, steps to change the actions and practices that harm species and habitat are still lagging. Implementation of recovery strategies, using both incentives and other SARA tools, needs to be the focus moving forward. In 2018, DFO published independent scientific reviews of the effectiveness of recovery measures for the Southern Resident Killer Whale, the St. Lawrence Estuary Beluga and the North Atlantic Right Whale. These documents have been helpful in guiding actions towards recovery.



## Recommendations:

- B5.** By 2022, develop a SARA compliance plan with specific actions for all critical habitat protected under Section 58. Compliance promotion should target all users of the critical habitat of each specific Species At Risk.
- B6.** By 2025, complete independent scientific reviews of the effectiveness of recovery measures for all threatened and endangered species listed under SARA.
- B7.** Align measures under the *Fisheries Act* with potential measures under SARA for all COSEWIC-assessed species as part of species-at-risk transformation within DFO.

## Contacts:

Alexandra Barron, CPAWS, [abarron@cpaws.org](mailto:abarron@cpaws.org)  
Sarah Saunders, WWF-Canada, [ssaunders@wwfcanada.org](mailto:ssaunders@wwfcanada.org)  
Kelsey Scarfone, Nature Canada, [kscarfone@naturecanada.ca](mailto:kscarfone@naturecanada.ca)  
Susanna Fuller, Oceans North, [susannafuller@oceansnorth.ca](mailto:susannafuller@oceansnorth.ca)

## C. Reduce key threats to ocean ecosystems

### Eliminate plastic pollution

The world is facing a plastic pollution crisis, and Canadians expect the federal government to act. Market research commissioned by Oceana Canada and conducted by Abacus Data in April 2021 found that 95% of Canadian residents are concerned about the impact plastic pollution has on our ocean. Ninety-seven per cent said it is important that the government take responsibility to address the issue, and 90% support a ban on single-use plastics.

We have known for some time that plastics degrade ecosystems, kill wildlife, and threaten our life-sustaining ocean.<sup>21</sup> Now, there is growing concern about the impact plastic has on our own health. For the first time, scientists have found microplastics (plastics smaller than 5mm) in human umbilical cords and placentas, meaning that babies are exposed to plastic pollution before they are born.<sup>22</sup>

As Canada recovers from the economic, environmental and human health impacts of the COVID-19 pandemic, it is crucial that government policies support a just and green transition. Tackling the plastic pollution crisis provides an opportunity to do just that.

---

<sup>21</sup> Environment and Climate Change Canada. (2020). A proposed integrated management approach to plastic products: discussion paper. <https://www.canada.ca/content/dam/eccc/documents/pdf/cepa/proposed-approach-plastic-management-eng.pdf>

<sup>22</sup> Ragusa, A. et al. (2021). Plasticenta: First evidence of microplastics in human placenta. *Environment International*. <https://www.sciencedirect.com/science/article/pii/S0160412020322297>

## Recommendations:

- C1.** Finalize a strong federal ban on harmful single-use plastics by 2022.
- C2.** Require that all plastic packaging contain at least 50% recycled content by 2030 and support the shift to reusable products and packaging by (A) adjusting federal procurement practices and supporting municipalities that adopt equivalent or better reuse standards; and (B) introducing targets for refillable beverage containers.
- C3.** Implement an extended producer responsibility program to incentivize reduction, retention and recovery of fishing gear as part of continued financial support for the recovery of ghost gear.

## Support an international moratorium on deep sea mining

As part of the transition to renewable energy, there is increasing pressure to find new sources of minerals needed for battery storage in electric cars and other applications. One of the potential sources for these minerals is the deep sea in the region beyond the 200 nautical mile limit of our exclusive economic zone. As a member of the International Seabed Authority (ISA), which has the authority to lease areas of the deep sea for mining, Canada can play a leading role in ensuring that this activity does not start in advance of sound scientific understanding and a strong, precautionary regulatory framework.

A science-based approach to deep seabed mining is necessary to avoid catastrophic effects on the environment. The deep sea ecosystem is home to species found nowhere else on Earth and it directs ocean currents across the world that provide nutrients and temperature regulation for diverse ecosystems and species. The deep sea is also a huge carbon sink, which is crucial for mitigating climate change. Scientists believe that commencing a new extractive industry in the deep sea, which is a low-oxygen environment that is slow to grow, adapt, and evolve, would be a poor decision.<sup>23</sup> The effects of this industry on a poorly understood ecosystem and the broader ocean are almost impossible to contain; a precautionary approach to deep seabed mining is the only way to prevent potentially irreversible environmental damage.

## Recommendation:

- C4.** Support a moratorium on deep seabed mining until at least the conclusion of the UN Decade of Ocean Science (2020-2030), in tandem with increased investment in deep sea science to ensure a better understanding and sustainable management of the seabed.

---

<sup>23</sup> Miller, Kathryn A., Kirsten F. Thompson, Paul Johnston, and David Santillo. "An Overview of Seabed Mining Including the Current State of Development, Environmental Impacts, and Knowledge Gaps." *Frontiers in Marine Science* 4 (2018). <https://doi.org/10.3389/fmars.2017.00418>.

## Reducing noise disturbance and pollution from marine industries

Coastal fisheries, eco-tourism, and other important coastal industries are put at risk by dumping of harmful substances from marine shipping vessels. Grey water dumped from marine vessels is a potential vector for microplastics, pharmaceutical pollution and invasive species. Nations like China and Singapore have already taken bold action to prevent the dumping of effluent from open-loop scrubbers in their national waters.

Some of Canada's most iconic species, including the Southern Resident Killer Whale and the North Atlantic Right Whale, are also at risk from conflicts with marine shipping. Action must be taken to ensure that these species can coexist with shipping in Canadian waters. Reducing the speed of vessels lowers the chances of harmful, and often fatal, ship strikes, while also providing the added benefit of reduced greenhouse gas emissions and underwater noise from the sector.

Underwater noise can have negative effects on the health and well-being of marine life, particularly marine mammals who rely on echolocation. Besides shipping, seismic exploration for oil and gas—which occurs over tens of thousands of kilometres every year—results in noise pollution that impacts marine mammals, sea turtles, fish, and plankton. The cumulative effects of this activity represent a pervasive threat to marine life.

### Recommendations:

- C5.** Institute a ban on the dumping of grey water in sensitive ecosystems and show international leadership on marine protection by banning the dumping of scrubber effluent in Canada's national waters.
- C6.** Reduce threat of shipping to iconic species by (A) developing a national speed reduction regime for maritime shipping; (B) committing to reducing the total ambient underwater noise caused by ships, particularly in sensitive marine mammal habitat; and (C) assessing and modifying where necessary existing marine shipping routes to minimize impact on iconic species.
- C7.** Conduct a regulatory review to ensure a consistent and science-based policy on the mitigation of seismic impacts on marine life across the multiple jurisdictions in Canada's offshore. Ensure that seismic operators are required to improve practices through regulator-led scientific reviews instead of relying on minimum standards. Include ocean noise mapping and impact reduction in ocean planning processes. Ensure cumulative noise impacts from all industries are prioritized in impact assessment.

### Contacts:

Doug Chiasson, WWF-Canada, [dchiasson@wwfcanada.org](mailto:dchiasson@wwfcanada.org)  
Susanna Fuller, Oceans North, [susannafuller@oceansnorth.ca](mailto:susannafuller@oceansnorth.ca)  
Kim Elmslie, Oceana Canada, [kemlsie@oceana.ca](mailto:kemlsie@oceana.ca)  
Gretchen Fitzgerald, Sierra Club, [gretchenf@sierraclub.ca](mailto:gretchenf@sierraclub.ca)

## D. Recognizing the ocean-climate nexus

### Supporting a just transition from offshore oil and gas.

We are at a critical juncture in the need to decarbonize human activities. In 2018, the Intergovernmental Panel on Climate Change (IPCC) reported that to meet the goal of the 2015 Paris climate agreement will require a reduction of carbon emissions “by about 45% from 2010 levels by 2030, reaching net zero around 2050.”<sup>24</sup>

In May 2021, the International Energy Agency (IEA) concluded that to meet Paris targets, “beyond projects already committed as of 2021, there are no new oil and gas fields approved for development in our [net zero] pathway...”<sup>25</sup> The continued expansion of offshore oil and gas in Canadian waters is not consistent with this advice or with Canada’s international climate commitments.<sup>26</sup> It also threatens our ability to achieve MPA targets, restore depleted marine populations, and protect endangered species. Canada needs to implement a just transition from offshore oil and gas by 2030.

#### Recommendations:

- D1.** Implement a just transition from offshore oil and gas by 2030, provide support and training for fossil fuel workers and commit to no further expansion of offshore oil and gas activity.

### Reducing GHG impacts from marine vessels

The shipping industry is one of the world’s largest emitters of greenhouse gases. If it were a country, it would be the world’s sixth biggest climate polluter, with global CO<sub>2</sub> emissions greater than Germany. It is estimated that vessels operating in Canadian waters emit eight million tons of CO<sub>2</sub> – the equivalent of two coal-fired plants – in one year, while port-related emissions are set to keep increasing as trade activity grows. As a part of Canada’s climate plan, we must take steps to address the local and global climate impacts of shipping.

Reducing domestic shipping and port emissions and advancing the production and uptake of zero-emission fuels and technologies in the maritime sector will help accelerate the broader energy transition and position Canada to play a greater role in reducing global shipping emissions. Investing in green maritime infrastructure such as zero-emission ferries, shore power, and the development of port hydrogen hubs will build the skills and workforce required to position Canada as a modern maritime energy leader while harnessing the sector to achieve its climate goals.

---

<sup>24</sup> <https://www.ipcc.ch/sr15/chapter/spm/>

<sup>25</sup> <https://www.iea.org/reports/net-zero-by-2050>

<sup>26</sup> Canada’s Updated NDC as of July 11, 2021:

[https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Canada%20First/Canada's%20Enhanced%20NDC%20Submission\\_EN.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Canada%20First/Canada's%20Enhanced%20NDC%20Submission_EN.pdf)

Recent advances in motor technology and alternative fuels have made the operation of zero-emissions vessels on shorter routes more possible than ever. Canada's carbon pricing system, designed to help Canada attain its Paris Agreement commitments, currently ignores the shipping industry. Black carbon, also referred to as soot, is a by-product of burning ultra-dirty fossil fuels like heavy fuel oil. It not only negatively impacts Arctic sea ice by increasing local warming but can negatively affect human health according to the World Health Organization.

## Recommendations

- D2.** Incorporate a comprehensive approach, including policy instruments, to reducing air pollution from Canada's shipping industry in Canada's climate crisis strategy. This approach should include not only of CO<sub>2</sub> emissions, but also black carbon, Nitrous Oxide, Sulfur Oxide (NO<sub>x</sub> and SO<sub>x</sub>), and methane.
- D3.** Set the achievable target of 100% zero-emission vessels in Canadian inland waters by 2030 and marine vessels by 2040. All federal ferries should be net-zero by 2035.
- D4.** Commit to zero-emission ports by 2030 through the development of port hydrogen hubs and develop ties to international ports to support the development of green shipping corridors and hydrogen export markets. This should include a zero-emission port infrastructure fund and a commitment to have all marine vessels at berth connected to shore power by 2030 to dramatically lower port emissions while reducing harmful air pollution for communities living near ports.

## Supporting marine nature-based climate solutions

Protecting and restoring coastal areas and carbon-rich ocean ecosystems is critical to meeting Canada's climate and biodiversity goals.

The ocean is a major part of the climate solution as identified by the High Level Panel.<sup>27</sup> According to a recent study, "by far the most effective approach for obtaining short term results [in mitigating climate change] (i.e. by 2030) is to protect the most carbon-dense/high-biodiversity ecosystems".<sup>28</sup> This includes the irrecoverable carbon in the Hudson Bay and James Bay Lowlands, as well as the irreplaceable biodiversity found in the surrounding coastal and marine areas. It also includes other significant blue carbon ecosystems such as the Bay of Fundy salt marshes.

Quantifying blue carbon – marine carbon stores like salt marshes, eelgrass beds and seafloor sediments – is still a new endeavour.<sup>29</sup> However, numerous studies indicate that blue carbon sinks are as significant as forests and other terrestrial carbon sinks<sup>30</sup> and that

---

<sup>27</sup> High Level Panel for a Sustainable Ocean Economy: <https://oceanpanel.org/climate>

<sup>28</sup> Risa B. Smith (2020) Enhancing Canada's Climate Change Ambitions with Natural Climate Solutions. Vedalia Biological Inc. Galiano, Canada.

<sup>29</sup> Atwood, TB, Witt, A, Mayorga, J, Hammill, E, Sala, E, (2020). Global Patterns in Marine Sediment Carbon Stocks. *IFrontiers in Marine Science*. 7: 165 <https://doi.org/10.3389/fmars.2020.00165>

<sup>30</sup> Ibid.

loss and disturbance of marine ecosystems makes a significant contribution to emissions.<sup>31</sup> Furthermore, blue carbon ecosystems are often associated with high levels of biodiversity and provide a host of additional ecosystem services, including climate change adaptation, supporting fisheries and trapping pollutants. Canada needs to invest in protecting and restoring blue carbon sinks as well as quantifying blue carbon reserves to better inform cost-benefit analyses that prioritize long-term climate impacts when new ventures are being considered.

## Recommendations:

- D5.** Develop a marine-focused Nature Based Climate Solutions strategy that integrates blue carbon into Canada's Climate Plan. The strategy should include objectives, timelines and funding to prioritize protection and restoration of existing blue carbon sinks, support research to map and quantify blue carbon, and provide guidelines for evaluation of blue carbon in environmental assessments for proposed projects.
- D6.** Amend the *Oceans Act* and *Fisheries Act* to consider climate impacts on the marine environment and marine species and include climate change in spatial and fisheries management objectives. Conduct climate vulnerability assessments for marine species and habitats.

## Contacts:

Doug Chiasson, WWF-Canada, [dchiasson@wwfcanada.org](mailto:dchiasson@wwfcanada.org)  
Shannon Arnold, Ecology Action Centre, [sarnold@ecologyaction.ca](mailto:sarnold@ecologyaction.ca)  
Susanna Fuller, Oceans North, [susannafuller@oceansnorth.ca](mailto:susannafuller@oceansnorth.ca)  
Kelsey Scarfone, Nature Canada, [kscarfone@naturecanada.ca](mailto:kscarfone@naturecanada.ca)  
Alex Barron, CPAWS, [abarron@cpaws.org](mailto:abarron@cpaws.org)  
Gretchen Fitzgerald, Sierra Club, [gretchenf@sierraclub.ca](mailto:gretchenf@sierraclub.ca)

---

<sup>31</sup> Sala, E., Mayorga, J., Bradley, D. et al. Protecting the global ocean for biodiversity, food and climate. *Nature* 592, 397–402 (2021).  
<https://doi.org/10.1038/s41586-021-03371-z>