



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

# **PROTECTION AND RECOVERY OF ENDANGERED WHALES: THE WAY FORWARD**

**Report of the Standing Committee on Fisheries  
and Oceans**

**Ken McDonald, Chair**

**DECEMBER 2018  
42<sup>nd</sup> PARLIAMENT, 1<sup>st</sup> SESSION**

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**Ken McDonald  
Chair**

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## **NOTICE TO READER**

### **Reports from committee presented to the House of Commons**

Presenting a report to the House is the way a committee makes public its findings and recommendations on a particular topic. Substantive reports on a subject-matter study usually contain a synopsis of the testimony heard, the recommendations made by the committee, as well as the reasons for those recommendations.

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# **THE STANDING COMMITTEE ON FISHERIES AND OCEANS**

has the honour to present its

## **EIGHTEENTH REPORT**

Pursuant to the Order of Reference of Wednesday, June 6, 2018, the Committee has studied M-154, Situation of Endangered Whales and has agreed to report the following:





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# LIST OF RECOMMENDATIONS

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*As a result of their deliberations, committees may make recommendations which they include in their reports for the consideration of the House of Commons or the Government. Recommendations related to this study are listed below.*

## **Recommendation 1**

**That Fisheries and Oceans Canada consider the socio-economic impacts on local communities affected by fishery closures announced by the Department. .... 20**

## **Recommendation 2**

**That the Government of Canada expand its consideration of threats to marine mammals from its current limited scope of commercial and recreational fishing and marine vessels to include all potential threats..... 20**

## **Recommendation 3**

**That Fisheries and Oceans Canada establish and publicly share population targets for threatened or endangered marine mammals and the stocks that they depend on for food and survival. .... 22**

## **Recommendation 4**

**That Fisheries and Oceans Canada regularly survey the population of Southern Resident Killer Whales, pinnipeds, and Chinook salmon and determine desired population targets for each species that will ensure both their relative sustainability and ecosystem balance. .... 22**

## **Recommendation 5**

**That, before implementing new measures to protect endangered whale species, Fisheries and Oceans Canada consult and maintain a meaningful dialogue with the following groups: fishers; those with local and traditional fishing knowledge; those with Indigenous traditional knowledge; and those with expertise in the field and who know what measures are feasible and the most effective at protecting whales. This would ensure collaboration between the industry, researchers, and scientists in the interest of protecting endangered species..... 24**

**Recommendation 6**

**That Fisheries and Oceans Canada consult with stakeholders, assess socio-economic costs of regulations being developed and work with stakeholders in a transparent and cooperative way in an effort to avoid eroding access to marine resources for those who depend on them..... 24**

**Recommendation 7**

**That Fisheries and Oceans Canada reduce regulatory obstacles that prevent fishers from better protecting whales (i.e. beyond regulatory measures to get an end-line down; illegal for scallop fishers to bring lost then found lobster traps ashore)..... 25**

**Recommendation 8**

**That Fisheries and Oceans Canada’s protocol on data collection on gear loss include data on gear retrieved because if not, the ghost gear problem is artificially inflated. .... 25**

**Recommendation 9**

**That the federal government contribute to funds created by fishers to protect whales, such as the fund created by the Fundy North Fishermen’s Association for ghost gear retrieval. .... 25**

**Recommendation 10**

**That any measures adopted by Fisheries and Oceans Canada to protect endangered whale species find a balance between providing the best protection for whales while minimizing negative socio-economic impacts. This should include processes where fishing zones are only closed if whales are present. .... 26**

**Recommendation 11**

**That Fisheries and Oceans Canada consult broadly when considering making changes to fishery management measures including fishery openings and static and dynamic closures in various fishing areas. Those consultations must include local fishers and Indigenous participation. .... 27**

**Recommendation 12**

**That the Government of Canada increase investments in research and collection of existing data to better understand the critical habitat of whales. .... 28**

**Recommendation 13**

**That the Government of Canada consider designating additional areas of protected critical habitat on the west coast of Vancouver Island, necessary to protect the Southern Resident Killer Whale. .... 28**

**Recommendation 14**

**That Fisheries and Oceans Canada increase efforts to rebuild the Chinook salmon stocks, using all available options. .... 29**

**Recommendation 15**

**That Fisheries and Oceans Canada increase the availability of preferred prey through the establishment of a science and local/traditional knowledge-based, targeted predator control program to reduce the pinniped predation around estuary and river environments, and other impacted systems. .... 29**

**Recommendation 16**

**That Fisheries and Oceans Canada increase the availability of preferred prey by expanding the Salmonid Enhancement Program to include hatcheries utilizing alternative methods of Chinook production, including the rearing of S1 Chinook and the utilization of sea pen rearing techniques. .... 30**

**Recommendation 17**

**That the Government of Canada investigate the impacts of commercial and recreational whale-watching on Southern Resident Killer Whales in feeding refuges. .... 31**

**Recommendation 18**

**That, outside of feeding refuges, the Government of Canada establish and strictly enforce a 200- metre buffer between all vessels and Southern Resident Killer Whales, as well as speed restrictions for commercial and recreational whale-watching vessels. .... 31**

**Recommendation 19**

**That the Government of Canada institute a series of operational measures to reduce noise and disturbance from commercial vessels traveling in or near Southern Resident Killer Whales’ foraging areas. Key actions include speed limits, redirecting ship traffic away from feeding refuges, and making vessels quieter. .... 32**

**Recommendation 20**

**That the Government of Canada take steps to limit the cumulative effects of vessel traffic on Southern Resident Killer Whales..... 32**



# PROTECTION AND RECOVERY OF ENDANGERED WHALES: THE WAY FORWARD

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## INTRODUCTION

On 6 June 2018, the House of Commons adopted the motion M-154 instructing the Standing Committee on Fisheries and Oceans (the committee) to undertake a study on the situation of endangered whales in Canada.<sup>1</sup> Below is the text of that motion:

That the Standing Committee on Fisheries and Oceans be instructed to undertake a study on the situation of endangered whales and be mandated to (i) identify steps that could be taken to better protect and help the recovery of right, beluga, and killer whales, (ii) identify immediate and longer term improvements limiting the impact of human activities on each of these species and, by so doing, add to recovery efforts and to recommendations for new or enhanced actions, (iii) call expert witnesses on each of the species, hearing from those who might be impacted by any possible actions, and working to find a balance among various competing claims; and that the Committee present its final report to the House by the end of the 2018 calendar year.

The committee held six public meetings between 23 October and 1 November 2018, during which it heard testimony from various commercial and recreational fishing organizations, the Tsleil-Waututh Nation, First Nations Summit, marine shipping and ferry industry organizations, marine scientists, environmental non-governmental organizations, the Commissioner of the Environment and Sustainable Development (the Commissioner), and officials from Fisheries and Oceans Canada (DFO).

The members of the committee would like to extend their sincere thanks to all the witnesses who participated in this study. The committee is pleased to present the results of its study in this report, along with recommendations based on the evidence it heard.

## BACKGROUND

### Role of Fisheries and Oceans Canada

Pursuant to section 2(1) of the *Species at Risk Act* (SARA), although the Minister of the Environment has the lead responsibility for protecting species at risk, aquatic species fall

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<sup>1</sup> House of Commons, *Journals*, No. 309, 1<sup>st</sup> Session, 42<sup>nd</sup> Parliament, 6 June 2018.



under the jurisdiction of the Minister of Fisheries and Oceans.<sup>2</sup> Under that section, aquatic species means a wildlife species that is a fish, as defined in section 2 of the *Fisheries Act*. The *Fisheries Act*'s definition of fish comprises all marine animals, including whales.<sup>3</sup>

## Population Status and Threats to At-Risk Whales

Although 19 whale populations are listed under SARA as endangered, threatened or of special concern,<sup>4</sup> the committee's study focused on the North Atlantic right whale (*Eubalaena glacialis*), the St. Lawrence Estuary beluga whale (*Delphinapterus leucas*), and the Southern Resident Killer Whale (*Orcinus orca*).

### North Atlantic Right Whale

The right whale was considered a single species and designated Endangered in 1980 by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).<sup>5</sup> COSEWIC split the right whale into two species in 2003 to allow a separate designation of the North Atlantic right whale (NARW) which was designated Endangered that same year. NARW was listed as Endangered under SARA in 2005. NARW has also been designated Endangered under the United States' *Endangered Species Act* since 1970.<sup>6</sup>

At the end of 2017, the NARW population was estimated to be about 411 animals.<sup>7</sup> Of those, there are just 71 breeding females remaining. Individuals generally spend the spring, summer, and fall in Canadian feeding habitats and migrate to southern United States calving habitats for the winter.<sup>8</sup>

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2 [Species at Risk Act](#), S.C. 2009, c. 29.

3 [Fisheries Act](#), R.S.C., 1985, c. F-14.

4 Species at Risk Public Registry, [List of wildlife species at risk: schedule 1](#).

5 Species at Risk Public Registry, [COSEWIC Assessment - North Atlantic Right Whale](#).

6 National Oceanic and Atmospheric Administration, [North Atlantic Right Whale](#).

7 Anderson Cabot Center for Ocean Life, [Right Whale Consortium Releases 2018 Report Card Update](#), 9 November 2018.

8 Sarah Yakobowski, [What Has Gone Wrong for the North Atlantic Right Whale?](#), Library of Parliament, 24 April 2018.



NARW critical habitat has been identified in the Grand Manan Basin (Bay of Fundy) and Roseway Basin (off southwestern Nova Scotia) since 2009.<sup>9</sup> However, over the last several years, right whale distribution and patterns of habitat use have experienced important shifts. In 2017, NARWs did not frequent their traditional feeding habitats in the Grand Manan Basin and Roseway Basin, but instead fed in the more northerly Gulf of St. Lawrence. It appears that the whales followed their crustacean prey as its distribution shifted northward.<sup>10</sup>

Between November 2016 and December 2017, 12 NARWs were found dead in Canadian waters in southern Gulf of St. Lawrence and five mortalities were reported in the United States' waters, representing 3% of the population (Figure 1).<sup>11</sup> This, coupled with the decline in reproductive output by 40% since 2010, threatens the survival of this species. Most of the mortality was attributed to two human-related causes: collisions with vessels, and entanglement in fishing gear.<sup>12</sup> Underwater noise has also been identified as a serious threat to the right whale population.<sup>13</sup>

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9 Species at Risk Public Registry, "[Background: Critical Habitat](#)," Chapter 11 in *Recovery Strategy for the North Atlantic Right Whale (Eubalaena glacialis) in Atlantic Canadian Waters*, June 2009.

10 Erin Meyer-Gutbrod and Charles Greene, "[Uncertain recovery of the North Atlantic right whale in a changing ocean](#)," *Global Change Biology*, 27 September 2017.

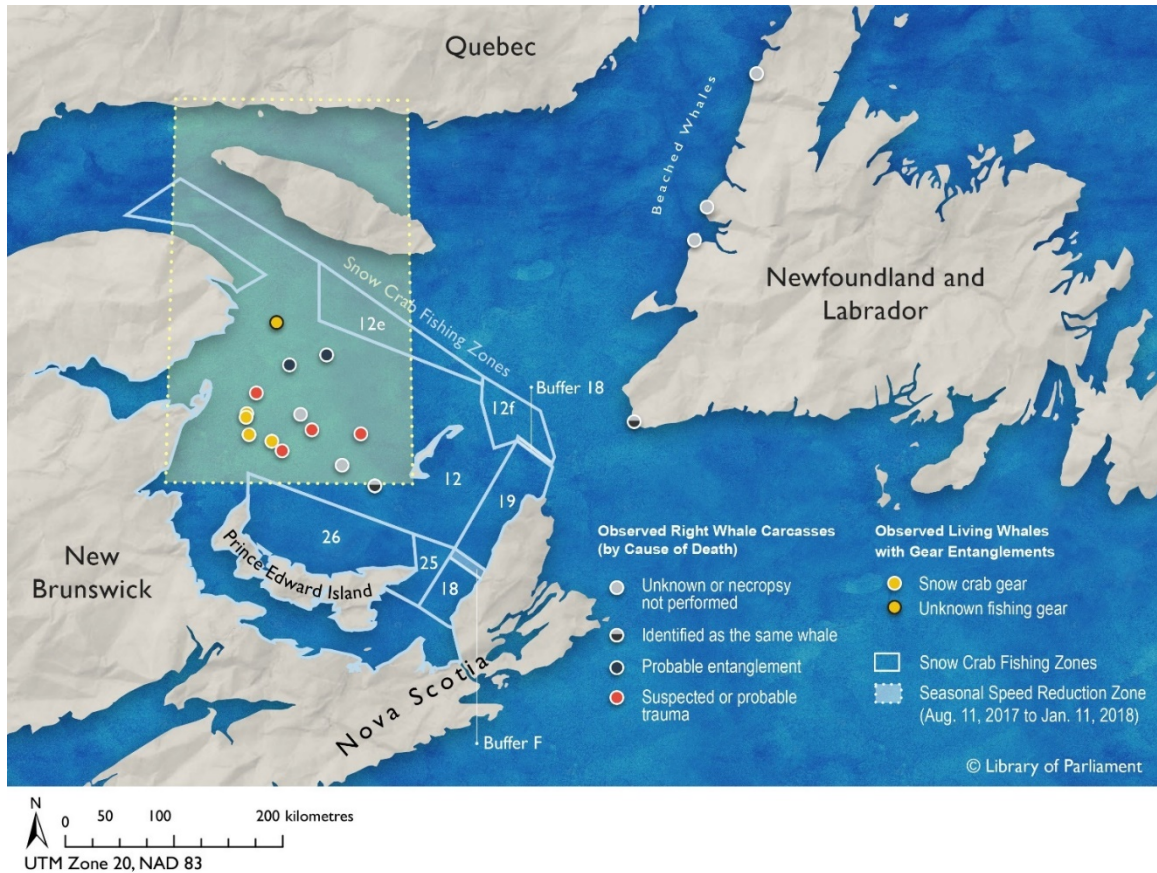
11 HM Pettis et al., [North Atlantic Right Whale Consortium: 2017 Annual Report Card](#), Amended 18 August 2018.

12 Canadian Wildlife Health Cooperative, Fisheries and Oceans Canada [DFO] and Marine Animal Response Society, [Incident Report: North Atlantic Right Whale Mortality Event in the Gulf of St. Lawrence](#), 5 October 2017.

13 DFO, [North Atlantic Right Whale](#).



**Figure 1 - North Atlantic Right Whale Deaths and Entanglements in the Gulf of St. Lawrence in 2017**



Source: Sarah Jakobowski, [What Has Gone Wrong for the North Atlantic Right Whale?](#), Library of Parliament, 24 April 2018.

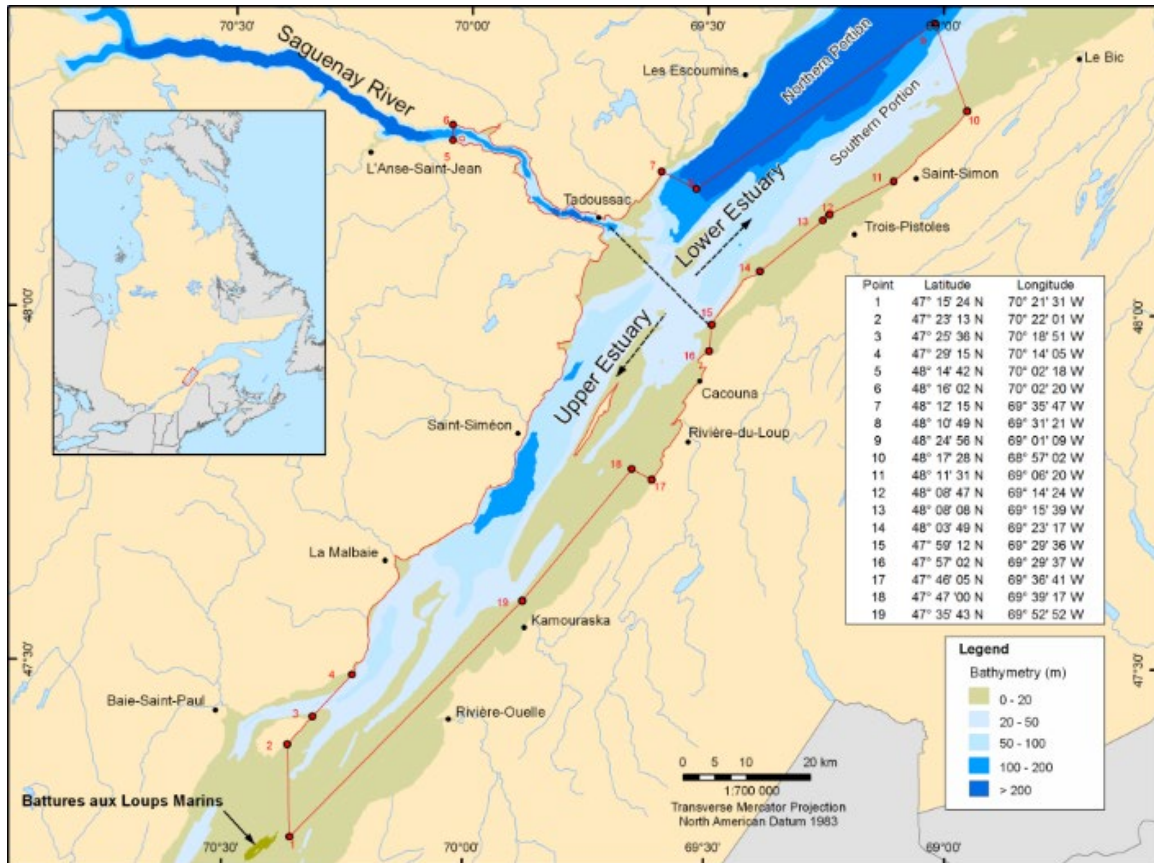
### St. Lawrence Estuary Beluga Whale

The St. Lawrence Estuary beluga whale was designated Endangered by COSEWIC in 1983 and listed as such under SARA in 2005.<sup>14</sup> In 2012, this population was estimated at 900 individuals.<sup>15</sup> The critical habitat of the St. Lawrence Estuary beluga whale (delimited in red in Figure 2) is in the Upper Estuary, from the Battures aux Loups Marins down into the Saguenay River, and in the southern portion of the Lower Estuary.

14 Species at Risk Public Registry, [Beluga Whale St. Lawrence Estuary population](#).

15 DFO, [Beluga Whale \(St. Lawrence Estuary population\)](#).

Figure 2 - Critical Habitat of the St. Lawrence Estuary Beluga Whale



Source: DFO, *Beluga Whale (St. Lawrence Estuary population)*.

Several factors contribute to the decline of beluga whales in the St. Lawrence Estuary. Among them, pollution, reduced food resources, disturbance by humans and habitat degradation. Beluga whales can also be the victim of vessel strikes and become entangled in fishing gear.<sup>16</sup>

According to DFO, the St. Lawrence Estuary belugas are among the most contaminated marine mammals.<sup>17</sup> Chemical and biological contaminants in the St. Lawrence ecosystem come from a variety of sources: agricultural, industrial and municipal waste, marine shipping, dredging operations, and others. Belugas feed on a variety of species, with a diet dominated by fish prey such as capelin, herring and Atlantic cod. Several of

16 DFO, *Beluga Whale (St. Lawrence Estuary population)*.

17 DFO, *Recovery Strategy for the beluga whale (Delphinapterus leucas) St. Lawrence Estuary population in Canada*, 2012.



these stocks have collapsed since the 1990s, and there are currently concerns that belugas may be competing with fisheries for some of these resources.<sup>18</sup> A DFO research document also noted that vessel traffic related to tourism and recreation peaks in July-August when belugas give birth and can impede the recovery of the population. The volume of this traffic has increased in areas used by females, juveniles and calves.<sup>19</sup>

## Southern Resident Killer Whale

The Southern Resident Killer Whale (SRKW) population was designated Endangered by COSEWIC in 2001 and listed as such under SARA in 2003.<sup>20</sup> SRKWs were also considered as Endangered by the United States' *Endangered Species Act* in 2005.<sup>21</sup> Its population currently consists of 74 members.<sup>22</sup>

SRKWs feed primarily on Pacific salmon, preferring Chinook (*Onchorhynchus tshawytscha*) and Chum (*O. keta*). A 2017 study in the journal PLOS ONE found that as many as 69% of SRKW pregnancies end in failure, likely due to the scarcity of their main prey.<sup>23</sup> In the Fraser and Columbia rivers – the two biggest remaining sources of salmon for SRKWs – Chinook salmon are experiencing low abundance issues.<sup>24</sup>

During the summer months, SRKWs concentrate off the southern end of Vancouver Island and northern Washington State, and are frequently sighted in Haro Strait, the Strait of Georgia and the Strait of Juan de Fuca, British Columbia (Figure 3).

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18 DFO, [Status of Beluga \(\*Delphinapterus leucas\*\) in the St. Lawrence River Estuary](#), Canadian Science Advisory Secretariat Science Advisory Report 2013/076, 2014.

19 DFO, [Documentation of maritime traffic and navigational interactions with St. Lawrence Estuary beluga \(\*Delphinapterus leucas\*\) in calving areas between 2003 and 2012](#), Canadian Science Advisory Secretariat Research Document 2014/003, 2014.

20 Species at Risk Public Registry, [Killer Whale Northeast Pacific southern resident population](#).

21 NOAA Fisheries, [Endangered Species Act Status of Puget Sound Killer Whales](#).

22 DFO, [Protecting Canada's Endangered Whales](#).

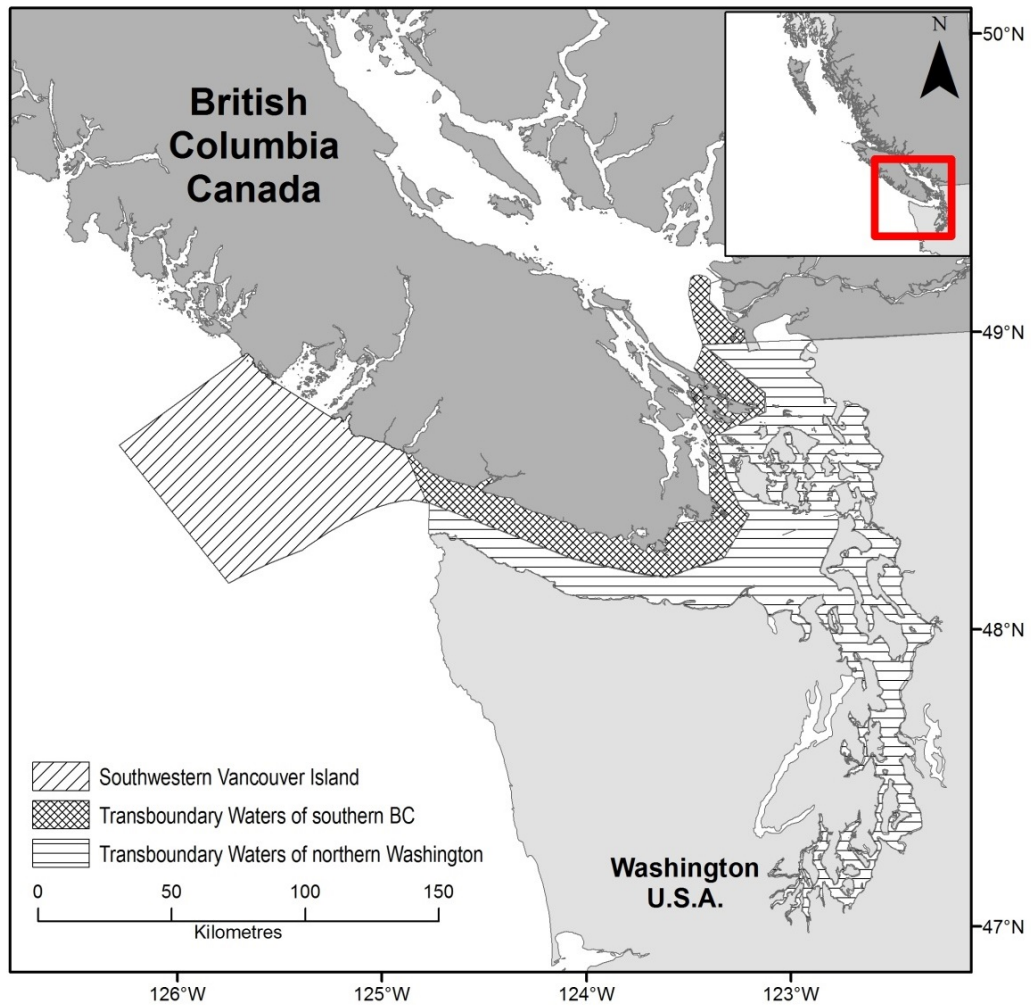
23 Samuel Wasser et al., "[Population growth is limited by nutritional impacts on pregnancy success in endangered Southern Resident killer whales \(\*Orcinus orca\*\)](#)," *PLOS ONE*, 29 June 2017.

24 DFO, [Southern Resident Killer Whales and Chinook Salmon](#), November 2017.





**Figure 3 - Boundaries of Current Southern Resident Killer Whale Critical Habitat in the Transboundary Waters of Southern British Columbia and Northern Washington State, and of Proposed Critical Habitat Off Southwestern Vancouver Island**



Source: DFO, [Questions and answers: Critical habitat for Northern and Southern Resident Killer Whales in Canada](#), Figure 1.



The greatest threats to SRKWs are reduction in prey availability, contaminants, and acoustic and physical disturbance.<sup>25</sup> A 2017 study indicated:

Prey limitation is the most important factor affecting [killer whale] population growth. However, to meet recovery targets through prey management alone, Chinook abundance would have to be sustained near the highest levels since the 1970s. The most optimistic mitigation of noise and contaminants would make the difference between a declining and increasing population but would be insufficient to reach recovery targets. Reducing acoustic disturbance by 50% combined with increasing Chinook by 15% would allow the population to reach 2.3% growth.<sup>26</sup>

In May 2018, the Minister of Fisheries, Oceans, and the Canadian Coast Guard, and the Minister of Environment and Climate Change concluded that SRKWs are likely facing imminent threat to their survival and recovery.<sup>27</sup> Unless mitigated, the current threats may make survival and recovery of the population unlikely or impossible. Pursuant to section 80(2) of SARA, the competent ministers made a recommendation for an emergency protection order to the Governor in Council. On 1 November 2018, the Governor in Council declined to issue such an order.<sup>28</sup>

## FEDERAL MANAGEMENT MEASURES IN 2018 AND THEIR IMPACTS

On 23 October 2018, the Commissioner, referring to her 2018 Fall Report on Protecting Marine Mammals, indicated to the committee that DFO was “very slow to take action to reduce threats to marine mammals” despite having several tools at its disposal.<sup>29</sup> Moreover, for the 14 marine mammals listed under SARA as endangered or threatened, “only four of the 14 recovery strategies required under SARA were completed within the Act’s required timelines, and no action plans were completed on time. In 2017, only seven of the 14 action plans were finalized.” In the Commissioner’s view, DFO’s management measures put in place in 2018 to protect and help the recovery of whale populations at risk have been “reactive, limited, and late.”

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25 DFO, *Southern Resident Killer Whales and Chinook Salmon*, November 2017.

26 Robert C. Lacy et al., “[Evaluating anthropogenic threats to endangered killer whales to inform effective recovery plans](#),” *Nature Scientific Reports*, No. 7, 26 October 2017.

27 Government of Canada, *Southern Resident Killer Whale: imminent threat assessment*, 24 May 2018.

28 Government of Canada, “[PC No. 2018-1352](#),” *Orders in Council*, 1 November 2018.

29 Julie Gelfand, Commissioner of the Environment and Sustainable Development, *Evidence*, 23 October 2018.

## North Atlantic Right Whale

The mortalities of 12 NARWs in the Gulf of St. Lawrence in 2017 resulted in the suspension of the Southern Gulf of St. Lawrence snow crab trap fishery's Marine Stewardship Council (MSC) certification.<sup>30</sup> As indicated by Basil MacLean, the MSC suspension was an economic "hurtful loss" for the region's fishing industry and a hit to the snow crab fishery's reputation as a well-managed one.<sup>31</sup>

DFO, in collaboration with Transport Canada and Environment and Climate Change Canada, implemented several management measures to prevent NARW mortalities in 2018. In November 2017, DFO's Minister hosted a roundtable discussion with fishers, the marine transportation industry, scientists, Indigenous communities, Atlantic provincial officials, and U.S. officials, to identify ways to minimize the risks of interactions with NARWs. The Minister subsequently announced a series of fisheries management measures for the 2018 fishing season in January<sup>32</sup> and March 2018.<sup>33</sup>

## Fisheries Management Measures

The 2018 fisheries management measures included static (season-long) closure to fishing activities starting on 28 April 2018 in an area where 90% of the NARW observations occurred in 2017 (Figure 4).<sup>34</sup> DFO also established a protocol for the dynamic management of fisheries which closed specific areas to fishing activities when the presence of NARWs was observed. When at least one NARW is observed inside areas subject to dynamic closures, a total of nine grids will be closed to provide a buffer area around the sighting location to account for whale movements. Dynamic closures were in force for a minimum period of 15 days and were extended by 15 days from the last NARW sighting. They were regulated through variation orders and fishers were provided a notice of 48 hours to retrieve fishing gear from the area prior to closure.

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30 Marine Stewardship Council, [MSC certificate suspended for Southern Gulf of St. Lawrence snow crab fishery](#), 20 March 2018.

31 Basil MacLean, President, Area 19 Snow Crab Fisherman's Association, [Evidence](#), 30 October 2018.

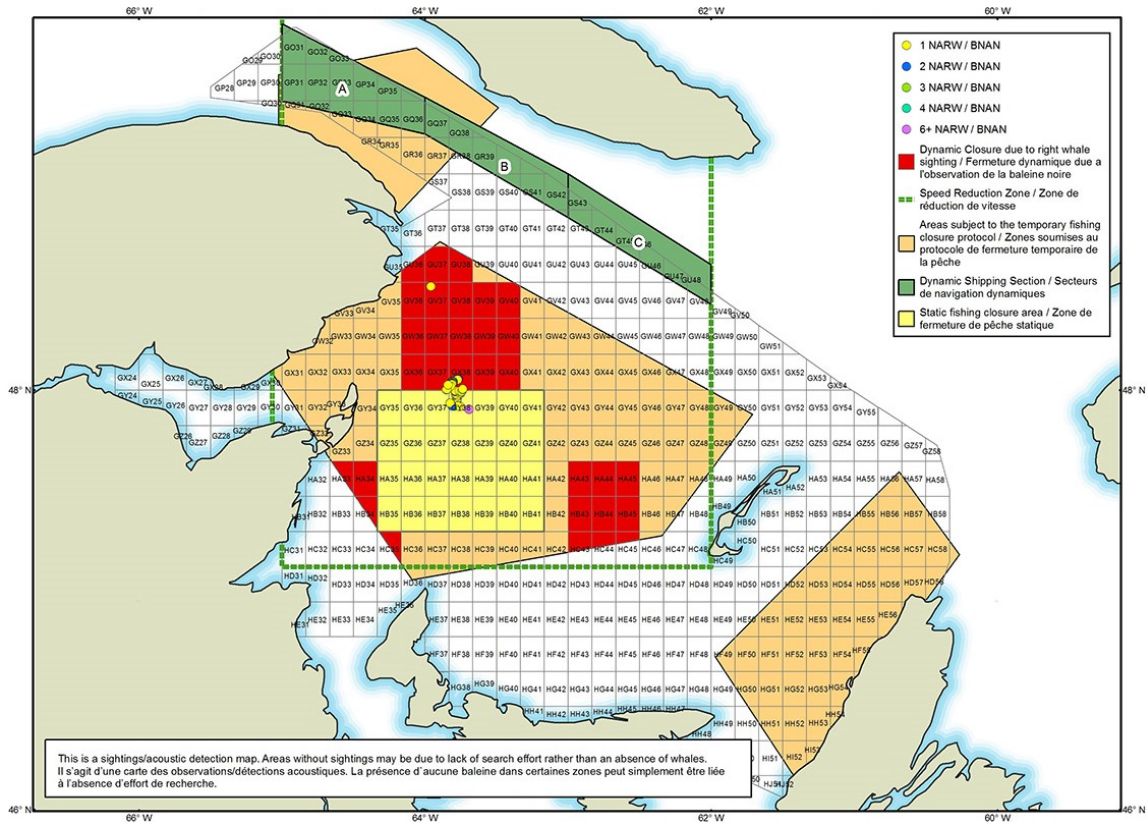
32 DFO, ["New management measures in place for 2018 season," News release](#), 23 January 2018.

33 DFO, ["Government of Canada unveils its plan for protecting North Atlantic right whales in 2018," Background](#), 28 March 2018.

34 DFO, [Snow crab in the Southern Gulf of St. Lawrence – crab fishing areas 12, 12E, 12F and 19](#).



Figure 4 – Static and Dynamic Closures on 13 August 2018



Source: DFO, [Notice of fisheries closures – Gulf Region – GU36 \(portion\), GU37 \(portion\) and GU38 \(portion\)](#).

Adam Burns from DFO listed several other fisheries management measures implemented in 2018 including reducing the amount of rope floating on the water, gear markings, additional identification of buoys, and requiring fishers to report lost gear.<sup>35</sup> He added that DFO continues to “foster innovation in fishing technologies and methods that would maintain an active fishing industry while also reducing the risk of whale entanglements.”

### Impacts on the Protection of the North Atlantic Right Whale

It appears that the 2018 fisheries management measures played a positive role in preventing NARW mortality in the Gulf of St. Lawrence as no death was reported for the

35 Adam Burns, Acting Assistant Deputy Minister, Fisheries and Harbour Management, DFO, [Evidence](#), 1 November 2018.



season. However, as Moira Brown indicated to the committee, there were still reports of entangled NARWs in summer 2018.<sup>36</sup> In addition, as a series of concurrent measures were implemented in 2018, it is difficult to determine which measure was the most effective one. In the words of Martin Mallet:

In 2018, the elimination of much of the floating rope was one of the major changes to fishing practices for snow crab and other coastal species, particularly lobster. Despite the area closures, if we had simply measured the impact of eliminating floating rope, we could have seen impressive results. The problem is that all these measures were taken at the same time, so it is difficult to assess now.<sup>37</sup>

### Impacts on the Fishing Industry

The committee heard from witnesses representing the fishing industry that the 2018 fisheries management measures implemented in the Gulf of St. Lawrence and the Bay of Fundy significantly affected their activities and livelihoods. According to O'Neil Cloutier, these measures had important socio-economic impacts on fishing coastal communities in the Maritimes and Quebec. Lobster fishers in Gaspésie suffered \$2,774,000 operating losses and the negative impact to the region's coastal communities was estimated to be \$7 million.<sup>38</sup> Bonnie Morse mentioned that 30 lobster fishing boats were affected by the closures in the Bay of Fundy with an estimated loss of \$1 million to the region's economy.<sup>39</sup> Robert Haché added:

The processing plants had a hard time with the crab catches being unloaded so quickly, which sometimes led to backlogs. In many cases, this shortened the working period for factory workers, thereby reducing their eligibility for employment insurance. That is the most significant negative impact on the fishing industry in 2018.<sup>40</sup>

Fishers' safety at sea was also affected by DFO's 2018 management measures. Jean Lanteigne indicated:

The measures implemented this year forced some fishermen to change their fishing practices a number of times. Many of them had to move their traps often [...] In addition to lower catch rates at the start of the season, the inclement spring weather forced fishermen to step up their fishing activities and to work in dangerous conditions. We are

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36 Moira Brown, Senior Scientist, Canadian Whale Institute, [Evidence](#), 30 October 2018.

37 Martin Mallet, Chief Executive Officer, Maritime Fishermen's Union, [Evidence](#), 25 October 2018.

38 O'Neil Cloutier, Director General, Regroupement des pêcheurs professionnels du Sud de la Gaspésie, [Evidence](#), 1 November 2018.

39 Bonnie Morse, Project Manager, Grand Manan Fishermen's Association, [Evidence](#), 25 October 2018.

40 Robert Haché, General Manager, Association des crabiers acadiens, [Evidence](#), 25 October 2018.



lucky there have been no tragedies at sea. Any strategy must consider fishermen's safety, which we consider non-negotiable.<sup>41</sup>

## Shipping Management Measures

In addition to DFO fisheries management measures, Transport Canada announced a mandatory vessel speed restriction from 28 April until 15 November 2018 in the Gulf of St. Lawrence.<sup>42</sup> Vessels of 20 metres long or more were required to reduce their speed to a maximum of 10 knots (18.5 km/h) in the fixed speed restriction zone. Temporary speed restrictions were also enforced in shipping lanes when a NARW was spotted in or near the lane.

## St. Lawrence Estuary Beluga Whale

To reduce physical disturbance and underwater noise effects on marine mammals, the federal government amended the *Fisheries Act's Marine Mammal Regulations* in June 2018.<sup>43</sup> The amendments aim to provide greater protection for certain marine mammal populations, including at-risk whales, by increasing the minimum approach distance for whale and other marine mammal watching vessels. For the St. Lawrence Estuary beluga whale, an approach distance of 400 meters was established.<sup>44</sup>

Although endangered beluga whale populations are included in the motion M-154, the committee did not hear extensive testimony regarding them. Robert Michaud reminded the committee that 35 years after being listed under SARA, the St. Lawrence Estuary beluga whale is still considered endangered.<sup>45</sup> He noted that the federal government provided enhanced funding for research on the impacts of disruption and noise on beluga whales' behaviour. However, in his opinion, federal investments for the protection of at-risk whales were made precipitously, in a slightly improvised way. Robert Michaud provided the example of the \$3 million *Whale Science for Tomorrow* initiative established to provide funding to Canadian universities for research on

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41 Jean Lanteigne, Director General, Fédération régionale acadienne des pêcheurs professionnels, *Evidence*, 25 October 2018.

42 Transport Canada, *Protecting North Atlantic right whales from ship strikes in the Gulf of St. Lawrence*, 27 July 2018.

43 Government of Canada, *Regulations Amending the Marine Mammal Regulations: SOR/2018-126*, Canada Gazette, Part II, Vol. 152, No. 14, 22 June 2018.

44 DFO, *Watching marine wildlife*.

45 Robert Michaud, Scientific Director, Groupe de recherche et d'éducation sur les mammifères marins, *Evidence*, 30 October 2018.

endangered whales. The initiative was announced in the middle of summer, on 17 July 2018,<sup>46</sup> and the deadline for application was set for 10 August 2018.<sup>47</sup>

## Southern Resident Killer Whale

The 2011 recovery strategy for SRKWs includes the identification of the population's partial critical habitats that were protected by a SARA critical habitat order in 2009.<sup>48</sup> In 2017, under the federal Oceans Protection Plan,<sup>49</sup> the Review of the Effectiveness of Recovery Measures for Southern Resident Killer Whales recommended new recovery activities to address the major threats to this population. These activities focused on the management of fisheries in consideration of the killer whales' prey need, and mitigation of environmental contaminants and disturbance (acoustic and physical) threats.<sup>50</sup>

Christianne Wilhelmson pointed out to the committee that the concern for SRKWs is not only based on the number of individuals left:

There have been no births resulting in surviving calves in nearly three years. There is currently a 69% failed pregnancy rate. There are only 23 reproductive females, and most pregnancies are the results of mating with only one male in the population. Another noted behavioural change for the species is frequency of visits to the Salish Sea. In 2017, southern residents were seen a total of 27 days, when their normal seasonal average is 150 days. In May of 2018, they were not seen in this region for the first time in the period that we have recorded their presence.<sup>51</sup>

The committee also heard from Ray Harris about the cultural significance of SRKWs to coastal First Nations:

We have many ceremonies, traditions and customs of our people that revolve around our relationship with the whale. It's a spiritual relationship that is hard to describe [...] We have songs and dances to celebrate with the whale. We have songs and dances that we call upon the whale to help us in times of need.<sup>52</sup>

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46 DFO, "[Government launches new research funding for Canadian universities to protect endangered whales](#)," *News release*, 17 July 2018.

47 Natural Sciences and Engineering Research Council of Canada, [Whale Science for Tomorrow](#).

48 Species at Risk Public Registry, [Critical Habitats of the Northeast Pacific Northern and Southern Resident Populations of The Killer Whale \(\*Orcinus Orca\*\) Order](#), 23 February 2009.

49 Government of Canada, [Canada's Oceans Protection Plan](#).

50 DFO, [Review of the Effectiveness of Recovery Measures for Southern Resident Killer Whales](#), 2017.

51 Christianne Wilhelmson, Executive Director, Georgia Strait Alliance, [Evidence](#), 30 October 2018.

52 Ray Harris, Co-Chair, First Nations Summit, [Evidence](#), 1 November 2018.



For coastal First Nations, given the significant decline of wild populations of Chinook salmon in recent years, the availability of prey for SRKWs is of “utmost concern.”<sup>53</sup> In addition to fishing pressure on Chinook populations and degradation of salmon habitats due to forestry operations, Teresa Ryan noted “seal and sea lion populations are out of control and they're having a tremendous impact on juvenile [salmon] survival. We've got numbers that we haven't seen or maybe ever. The whole ecosystem is out of balance.”<sup>54</sup>

David Bain mentioned the disturbance effects of military sonar exercises on at-risk whales, interfering with their feeding activities.<sup>55</sup> Several scientific publications have documented cases of whales being mass stranded during some naval sonar exercises.<sup>56</sup> However, the committee did not have the opportunity to hear from the Canadian Forces Base Esquimalt’s representatives on mitigation measures taken in the Strait of Juan de Fuca.

### Fisheries Management Measures

Fisheries management measures put in place by DFO to reduce the total removal for Chinook salmon include:

- closures for recreational finfish in portions of the Strait of Juan de Fuca and portions of the Gulf Islands;
- closures for commercial salmon fisheries in parts of the Strait of Juan de Fuca and the Gulf Islands;
- partial closures in the mouth of the Fraser River;
- reduced harvest size limits;
- size limits and time restrictions; and

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53 Ray Harris, Co-Chair, First Nations Summit, [Evidence](#), 1 November 2018.

54 Teresa Ryan, Postdoctoral Research Fellow, Forest and Conservation Sciences, University of British Columbia, As an Individual, [Evidence](#), 1 November 2018.

55 David Bain, Chief Scientist, Orca Conservancy, [Evidence](#), 30 October 2018.

56 Peter L. Tyack et al., “[Beaked Whales Respond to Simulated and Actual Navy Sonar](#),” *PLoS ONE*, Vol. 6, No. 3, March 2011, and Z. Daniel Deng et al., “[200 kHz Commercial Sonar System Generate Lower Frequency Side Lobes Audible to Some Marine Mammals](#),” *PLoS ONE*, Vol. 9, No. 4, April 2014.

- select area closures to protect Chinook stocks of concern.<sup>57</sup>

Adam Burns indicated that, on 1 November 2018, the federal government announced an additional \$61.5 million to implement new measures including ones aimed at protecting and recovering Chinook salmon stocks that are significant for SRKWs, and at identifying new SRKW critical habitats.<sup>58</sup> The funding will also provide support for the creation of “one or more South Resident Killer Whale sanctuaries within sub-areas of critical habitat the whales use for foraging.”<sup>59</sup> In addition, Adam Burns mentioned a federal investment of \$500,000 for the Salmonid Enhancement Program to increase Chinook salmon production through hatcheries.

### Impacts on the Fishing Industry

According to Martin Paish, DFO fisheries management measures have:

focused mainly on restricting recreational fishing activity in its attempt to address the problem. While there has been no research conducted nor evidence collected that these large-scale closures are in any way effective in terms of enabling southern resident killer whales to access more prey, the closures have created significant social and economic disruption in communities like Sooke on southern Vancouver Island and threaten to exacerbate the disruption with the designation of critical habitat extensions.<sup>60</sup>

In Martin Paish’s opinion, recreational fisheries restrictions on the Pacific Coast were also “implemented against the advice of both Pacific Region DFO staff and a group of marine mammal scientists and fishery managers who convened in November 2017 to come up with solutions to address the accessibility of prey for southern resident killer whales.” For his part, referring to the potential impacts of seals and sea lions on Chinook salmon populations, Paul Lansbergen indicated SARA focuses on “anthropogenic issues, not natural issues.”<sup>61</sup>

Therefore, the committee recommends:

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57 DFO, *Fisheries management*.

58 DFO, “[Government of Canada taking further action to protect Southern Resident Killer Whales](#),” *News release*, 1 November 2018.

59 Adam Burns, Acting Assistant Deputy Minister, Fisheries and Harbour Management, DFO, *Evidence*, 1 November 2018.

60 Martin Paish, Director, Business Development, Sport Fishing Institute of British Columbia, *Evidence*, 30 October 2018.

61 Paul Lansbergen, President, Fisheries Council of Canada, *Evidence*, 25 October 2018.



### **Recommendation 1**

**That Fisheries and Oceans Canada consider the socio-economic impacts on local communities affected by fishery closures announced by the Department.**

### **Recommendation 2**

**That the Government of Canada expand its consideration of threats to marine mammals from its current limited scope of commercial and recreational fishing and marine vessels to include all potential threats.**

## **Shipping Management Measures**

Adam Burns listed for the committee, a series of shipping management measures included in the additional \$61.5 million announcement on 1 November 2018. These measures aim at reducing noise and physical disturbance that can interfere with the ability of SRKWs to conduct essential life processes. They include:

expanding the vessel slowdowns to further reduce underwater noise, developing agreements with ferry operators and other marine industry partners to formalize current voluntary measures to reduce noise, expanding vessel monitoring systems and capabilities to develop real-time ability to avoid whale encounters, and providing funding to Ocean Wise for the development and deployment of a whale report alert system.<sup>62</sup>

Regarding vessel slowdowns, Sonia Simard indicated:

although there's a body of knowledge to the effect that reducing the speeds at 10 knots can indeed reduce the risk of ship strikes, the situation is not the same when it comes to addressing the issue of underwater noise from vessels. There is an important knowledge gap, there.

To give you an example, we are still finding information about the noise that can be allocated to different categories of vessels and how the footprint of a vessel may vary because of factors such as loading conditions, or even fixed factors, such as the type of propellers on board the vessels or the shape of those vessels.<sup>63</sup>

The committee also heard from Serge Buy that speed reductions imposed on certain ships such as ferries may lead to more noise:

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62 Adam Burns, Acting Assistant Deputy Minister, Fisheries and Harbour Management, DFO, [Evidence](#), 1 November 2018.

63 Sonia Simard, Director, Legislative Affairs, Shipping Federation of Canada, [Evidence](#), 30 October 2018.

About a year and a half ago, or a year and a bit, I met with Transport Canada officials. Their statement to me was that we have to reduce the speed of ferries to protect the southern resident killer whales. My reply was, “Do you understand that if we do reduce the speed of ferries, it will increase the noise?” There was dead silence.<sup>64</sup>

Therefore, in Sonia Simard’s view, “in some cases regulations may look good on paper but they may not always produce the best solutions because indeed regulations tend to not allow for real-time learning experience and an adaptive approach, which is very critically needed when you talk about underwater noise.” As an example of adaptive measures, Carrie Brown mentioned the Enhancing Cetacean Habitat and Observation, or ECHO, program led by the Vancouver Fraser Port Authority.<sup>65</sup> ECHO is a regional collaborative initiative that seeks to reduce threats to at-risk whales through voluntary measures. Carrie Brown also indicated the shipping industry, in the absence of complete scientific certainty, is “taking a precautionary approach and implementing mitigation through slow downs as well as a lateral displacement.”

## THE WAY FORWARD

### Measuring Conservation Efforts

DFO has identified recovery strategies for the three at-risk whale populations considered in this report.<sup>66</sup> The committee was informed, however, by Philippe Morel that the Department has not set specific population targets for these three endangered whale populations.<sup>67</sup> DFO has also not established target levels for Chinook salmon populations on which SRKWs depend on for their recovery. Philippe Morel indicated “the target is increase in population.” However, without explicit target population levels, it would be difficult to determine when conservation efforts are successful. Population target levels would provide a “benchmark for measuring conservation efforts and give transparency and legitimacy to conservation decisions.”<sup>68</sup> Therefore, the committee recommends:

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64 Serge Buy, Chief Executive Officer, Canadian Ferry Association, *Evidence*, 30 October 2018.

65 Carrie Brown, Director, Environmental Programs, Vancouver Fraser Port Authority, *Evidence*, 30 October 2018.

66 Species at Risk Public Registry, *Recovery Strategy for the North Atlantic Right Whale (*Eubalaena glacialis*) in Canadian Waters*, 2014; Government of Canada, *Recovery Strategy for the Beluga (*Delphinapterus leucas*) St. Lawrence Estuary Population in Canada*, 2011; and Species at Risk Public Registry, *Recovery Strategy for the Northern and Southern Resident Killer Whales (*Orcinus orca*) in Canada*, 12 October 2011.

67 Philippe Morel, Assistant Deputy Minister, Aquatic Ecosystems Sector, *Evidence*, 1 November 2018.

68 Eric W. Sanderson, “[How Many Animals Do We Want to Save? The Many Ways of Setting Population Target Levels for Conservation](#),” *BioScience*, Vol. 56, No. 11, 1 November 2006, pp. 911-922.



### Recommendation 3

**That Fisheries and Oceans Canada establish and publicly share population targets for threatened or endangered marine mammals and the stocks that they depend on for food and survival.**

### Recommendation 4

**That Fisheries and Oceans Canada regularly survey the population of Southern Resident Killer Whales, pinnipeds, and Chinook salmon and determine desired population targets for each species that will ensure both their relative sustainability and ecosystem balance.**

## **Integration of Local Knowledge and Enhancing the Consultation Process**

### **Using Local Knowledge to Manage Marine Environments**

Melanie Sonnenberg reminded the committee that for decades, fishers and right whales have coexisted in the Bay of Fundy.<sup>69</sup> Therefore, local fishers have developed a right whale mitigation strategy that remains in place. That strategy, developed in collaboration with marine scientists, is based on fishers' knowledge of their local environment and whale behaviour. According to Melanie Sonnenberg, the strategy's flexibility allowed fishers and whales to coexist with minimal socio-economic impacts to local coastal communities.

In the view of Bonnie Morse, DFO's 2018 "rigid" protocol established for the whole East Coast did not integrate fishers' local knowledge and resulted in unnecessary economic losses for the local economy.<sup>70</sup> She noted with satisfaction that DFO has recently accepted the application of the Grand Manan Fishermen's Association's modified mitigation strategy for the 2019 season. Melanie Sonnenberg emphasized, however, that management measures need to "be different from area to area and fishery to fishery. One size will not fit all."<sup>71</sup>

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69 Melanie Sonnenberg, General Manager, Grand Manan Fishermen's Association, [Evidence](#), 25 October 2018.

70 Bonnie Morse, Project Manager, Grand Manan Fishermen's Association, [Evidence](#), 25 October 2018.

71 Melanie Sonnenberg, General Manager, Grand Manan Fishermen's Association, [Evidence](#), 25 October 2018.





## Departmental Consultation Process

Robert Haché noted certain fisheries management measures that were implemented in the Gulf of St. Lawrence in Fall 2017, following prior consultations between the Department and fishers, were very effective.<sup>72</sup> However, he indicated there was little communication between DFO and the fishing industry after Fall 2017. The committee also heard from several other witnesses from the fishing industry about deficiencies in DFO's consultation process. Paul Lansbergen noted:

Across the fisheries affected by the right whale, there is a broad consensus, as you heard from Robert [Haché], that the actions taken in 2018 were implemented hastily, with little consultation and seemingly without a long-term view that allows for real industry innovation. While the measures were successful in mitigating entanglement and ship strikes, their overall effectiveness in terms of minimizing the socio-economic impacts on the sector and the communities is in question.<sup>73</sup>

Deficiencies in the departmental consultation process led to some frustration among fishing organizations. Referring to the lobster fishery in the southern Gulf of St. Lawrence, Carl Allen indicated:

We got slapped with a whole bunch of restrictions this spring, and some are in our fall fisheries, on which we were not consulted. We were not even informed until two weeks before our fishery started that we were getting these.<sup>74</sup>

Maria Recchia, representing the Fundy North Fishermen's Association, also mentioned:

We were consulted very little, especially when all of this started. There was the minister's round table that we weren't invited to. In the consultations before, sometimes we found out things on Facebook and not from the government itself.<sup>75</sup>

Owen Bird, referring to sport fishers in British Columbia, added:

There has been opportunity to consult. However, in the first round of consultation, our input was basically ignored, and the additional consultation opportunities almost seemed strategically poorly timed for us to be able to contribute meaningfully.<sup>76</sup>

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72 Robert Haché, General Manager, Association des crabiers acadiens, [Evidence](#), 25 October 2018.

73 Paul Lansbergen, President, Fisheries Council of Canada, [Evidence](#), 25 October 2018.

74 Carl Allen, President, Maritime Fishermen's Union, [Evidence](#), 25 October 2018.

75 Maria Recchia, Executive Advisor, Fundy North Fishermen's Association, [Evidence](#), 25 October 2018.

76 Owen Bird, Executive Director, Sport Fishing Institute of British Columbia, [Evidence](#), 30 October 2018.



Considering the above evidence, the committee recommends:

#### Recommendation 5

**That, before implementing new measures to protect endangered whale species, Fisheries and Oceans Canada consult and maintain a meaningful dialogue with the following groups: fishers; those with local and traditional fishing knowledge; those with Indigenous traditional knowledge; and those with expertise in the field and who know what measures are feasible and the most effective at protecting whales. This would ensure collaboration between the industry, researchers, and scientists in the interest of protecting endangered species.**

#### Recommendation 6

**That Fisheries and Oceans Canada consult with stakeholders, assess socio-economic costs of regulations being developed and work with stakeholders in a transparent and cooperative way in an effort to avoid eroding access to marine resources for those who depend on them.**

### North Atlantic Right Whale

Commercial fishers in the Maritimes and Quebec called on DFO to improve fisheries management measures in 2019 based on impacts of the 2018 measures. Referring to DFO's requirement to report lost (ghost) gear, Maria Recchia pointed out:

There is no mechanism to report lost gear that has been retrieved. In our region, fishermen lose gear during the fishing season, but most of that is recovered. Much is found during scallop fishing and returned to the owners. Believe it or not, it is illegal for scallop fishermen to bring the found lobster traps ashore. They do it anyway, because it's the right thing to do.<sup>77</sup>

Maria Recchia indicated the “vast majority of our lost gear is retrieved within six months in our district, but DFO is only collecting numbers on gear that is lost. This will artificially inflate the ghost gear problem and gives us a further blemish on the world stage.” She added that the Fundy North Fishermen's Association is attempting to establish a fund for ghost gear retrieval with contributions from the fishing and other industries. In her view, the federal government should assist the Association in managing and matching the funds raised. The funds would be “used to build grapples, and to pay fishermen to retrieve large snarls of ghost gear, which is a very dangerous and highly skilled job.”

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77 Maria Recchia, Executive Advisor, Fundy North Fishermen's Association, [Evidence](#), 25 October 2018.

As a result, the committee recommends:

**Recommendation 7**

**That Fisheries and Oceans Canada reduce regulatory obstacles that prevent fishers from better protecting whales (i.e. beyond regulatory measures to get an end-line down; illegal for scallop fishers to bring lost then found lobster traps ashore).**

**Recommendation 8**

**That Fisheries and Oceans Canada’s protocol on data collection on gear loss include data on gear retrieved because if not, the ghost gear problem is artificially inflated.**

**Recommendation 9**

**That the federal government contribute to funds created by fishers to protect whales, such as the fund created by the Fundy North Fishermen’s Association for ghost gear retrieval.**

Based on their local and traditional knowledge, fishing organizations in the Maritimes and Quebec put forward several recommendations for the 2019 season. Their recommendations aim to ensure a more “flexible management strategy” while fostering a “healthy coexistence” of right whales and fishers.<sup>78</sup> Among others, the recommendations include:

- That the guiding principles for the 2019 management measures include the “cohabitation between the right whale and the populations living off the sea;”<sup>79</sup>
- That dynamic closures of fishing grids only take place if three or more right whales are simultaneously present. Fishers noted that the presence of three whales are needed in the United States for the closure of a dynamic grid;
- That DFO establish depth limits to the application of dynamic and static closures as NARWs tend to “remain at depths of more than

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78 Association des crabiers acadiens, Association des pecheurs professionnels crabiers acadiens, Crabiers du Nord-Est Inc., Maritime Fishermen’s Union, and New Brunswick Snow Crab Processors Association, [\*New Brunswick Crab Industry’s Position Concerning the North Atlantic Right Whale and the Snow Crab Fishery\*](#), 25 October 2018.

79 Regroupement des pêcheurs professionnels du Sud de la Gaspésie, [\*Brief\*](#), 1 November 2018.



20 fathoms (120 feet) along the bathymetric lines.”<sup>80</sup> Fishers also proposed a 3-step protocol for removal of fishing gear if a NARW should be observed within the 20 fathoms depth limit; and

- That DFO use the 2018 data to model whale movements and devise flexible management measures with the aim to reduce the size of closed areas and duration of fishery closures.

Therefore, the committee recommends:

#### **Recommendation 10**

**That any measures adopted by Fisheries and Oceans Canada to protect endangered whale species find a balance between providing the best protection for whales while minimizing negative socio-economic impacts. This should include processes where fishing zones are only closed if whales are present.**

#### **Recommendation 11**

**That Fisheries and Oceans Canada consult broadly when considering making changes to fishery management measures including fishery openings and static and dynamic closures in various fishing areas. Those consultations must include local fishers and Indigenous participation.**

## **Southern Resident Killer Whale**

### **Critical Habitat**

While supporting DFO’s efforts to identify and protect new areas of habitat necessary for survival and recovery of SRKWs, Spencer Taft proposed a series of recommendations on behalf of the Tsleil-Waututh Nation:

- Amend the definition of critical habitat under SARA to consider continued Indigenous cultural use;
- Base critical habitat designations on pre-contact or pre-industrial environmental conditions, rather than current ones; and

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80 Maritimes Fishermen’s Union, *Preliminary Position on Right Whale Protection Measures in the Gulf of St. Lawrence (2019 Season)*, 25 October 2018.

- Designate Burrard Inlet and the Fraser River Estuary as critical habitat so it is connected to the existing recognized critical habitat.<sup>81</sup>

For his part, David Bain suggested the entire SRKW range be considered critical habitat to maintain ecological function and the quality of habitat throughout the range.<sup>82</sup> Christianne Wilhelmson and Margot Venton pointed out that the federal government could use emergency protection orders for immediate and targeted protection of species and their critical habitats from human activities impacts.<sup>83</sup> However, the committee also heard from Martin Paish that:

[DFO's] recent proposal for the designation of a huge area of the west coast of Vancouver Island as critical habitat is based on inference, faith and hope rather than science, evidence and sound research. The data used to support the claim that this is critical habitat is poorly designed and lacks the certainty that is required to justify the devastating impacts that large-scale closures will have on the communities that depend on recreational fishing activity.<sup>84</sup>

The committee therefore recommends:

### **Recommendation 12**

**That the Government of Canada increase investments in research and collection of existing data to better understand the critical habitat of whales.**

### **Recommendation 13**

**That the Government of Canada consider designating additional areas of protected critical habitat on the west coast of Vancouver Island, necessary to protect the Southern Resident Killer Whale.**

## **Prey Availability**

In David Bain's view, as a long-term measure to ensure prey availability for SRKWs, "repairing habitat is important to spawning and rearing juvenile salmon. The vegetation around streams and how we manage water flows in streams are important to salmon

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81 Spencer Taft, Project Manager, Cumulative Effects, Tsleil-Waututh Nation, [Evidence](#), 1 November 2018.

82 David Bain, Chief Scientist, Orca Conservancy, [Evidence](#), 30 October 2018.

83 Magot Venton, Director, Nature Program, Ecojustice Canada, [Evidence](#), 1 November 2018.

84 Martin Paish, Director, Business Development, Sport Fishing Institute of British Columbia, [Evidence](#), 30 October 2018.



survival.”<sup>85</sup> Immediate measures to improve prey availability include fishery restrictions. Lance Barrett-Lennard stressed that “closing sport fishing on the whales' foraging hot spots” is critical to “preserve for the whales the adult fish that have made it through a gauntlet of perils as they approach their spawning rivers and move into the whales' key foraging areas.”<sup>86</sup>

The committee recommends:

#### **Recommendation 14**

**That Fisheries and Oceans Canada increase efforts to rebuild the Chinook salmon stocks, using all available options.**

Regarding the low abundance of Chinook salmon, David Bain pointed out that SRKWs also face competition from other predators such as seals and sea lions.<sup>87</sup> In his view:

human modification of the habitat and timing of runs has enabled pinnipeds to be more effective predators than they used to be. Also, the decline of transient killer whales that feed on pinnipeds has made a population boom in pinnipeds possible. While transients are catching up and will eventually put the ecosystem back in balance, it's an issue we need to pay attention to.

David Bain added that specific groups of seals will “park at river mouths and eat smolts that are going out to sea. That's encouraged to some degree by humans, because we'll do hatchery releases that bring large numbers of smolts into a small area at the same time.”<sup>88</sup> Therefore, Martin Paish called for a “targeted, science-based predator control program” as an immediate measure to improve prey availability which goes beyond fishery restrictions.<sup>89</sup>

Considering the above evidence, the committee recommends:

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85 David Bain, Chief Scientist, Orca Conservancy, [Evidence](#), 30 October 2018.

86 Lance Barrett-Lennard, Director, Marine Mammal Research Program, Coastal Ocean Research Institute, [Evidence](#), 30 October 2018.

87 David Bain, Chief Scientist, Orca Conservancy, [Evidence](#), 30 October 2018.

88 David Bain, Chief Scientist, Orca Conservancy, [Evidence](#), 30 October 2018.

89 Martin Paish, Director, Business Development, Sport Fishing Institute of British Columbia, [Evidence](#), 30 October 2018.

### **Recommendation 15**

**That Fisheries and Oceans Canada increase the availability of preferred prey through the establishment of a science and local/traditional knowledge-based, targeted predator control program to reduce the pinniped predation around estuary and river environments, and other impacted systems.**

To rebuild the vulnerable Chinook salmon stocks in the long term, fish hatcheries were suggested as an avenue that DFO should increase focus on. Carol Schmitt indicated that Omega Pacific Hatchery's facilities and knowledge in Chinook stock enhancement is significantly underutilized by DFO. She also mentioned that Omega Pacific Hatchery's one-year old stream-type (S1) smolts have a track record of higher marine survival rates compared to DFO's S0 type.<sup>90</sup> Martin Paish noted that "in the 1990s, when the southern resident killer whales were demonstrating increases in their population, we produced 15 million Chinook in the Fraser River through hatchery production; now we're producing three."<sup>91</sup>

In contrast, the committee heard from David Bain that hatcheries are:

A double-edged sword for killer whales. Ideally, they would serve as lifeboats where depleted runs could be supported, and then the hatchery could be phased out once wild runs were restored. However, they have become long-term sources of fish for humans, and as a result, the focus has been on numbers rather than body size. We've seen a significant decline in the size of chinook salmon as a result of increasing reliance on hatcheries.<sup>92</sup>

The committee recommends:

### **Recommendation 16**

**That Fisheries and Oceans Canada increase the availability of preferred prey by expanding the Salmonid Enhancement Program to include hatcheries utilizing alternative methods of Chinook production, including the rearing of S1 Chinook and the utilization of sea pen rearing techniques.**

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90 Carol Schmitt, President, Omega Pacific Hatchery Inc, *Evidence*, 30 October 2018.

91 Martin Paish, Director, Business Development, Sport Fishing Institute of British Columbia, *Evidence*, 30 October 2018.

92 David Bain, Chief Scientist, Orca Conservancy, *Evidence*, 30 October 2018.



## Acoustic and Physical Disturbance

Regarding acoustic and physical disturbance of SRKW, Lance Barrett-Lennard indicated that underwater noise, which interferes with the whales' ability to find prey, can be reduced by promoting quieter ship design and operation.<sup>93</sup> He stressed that “noise reduction is particularly important in lean salmon years, when the whales must search large volumes of water to find their sparsely distributed prey.” Therefore, Christianne Wilhelmson recommended:

- A prohibition of commercial and private whale-watching in feeding refuges;
- Measures to limit vessel time in proximity to whales; and
- Developing noise reduction targets with no net increase in overall noise levels relative to 2016 levels.<sup>94</sup>

Margot Venton also emphasized the need to “address the cumulative impacts of human activity in the Salish Sea before any further increases in vessel traffic are enabled through port development or export expansion.”<sup>95</sup>

To reduce the effects of underwater noise and ship strikes, Sonia Simard mentioned that the Shipping Federation of Canada urged the federal government to “invest in acoustic detection, real-time acoustic detection in the shipping corridor in time for 2019 so that we combine acoustic detection with aerial detection in order to improve dynamic management.”<sup>96</sup> Carrie Brown also added that “although adjustments to vessel operations on water, such as changes to routes or speeds, may in the short term reduce the effects of shipping on endangered whales, the long-term solution to vessel noise reduction lies in the design of quieter ships.”<sup>97</sup>

Therefore, the committee recommends:

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93 Lance Barrett-Lennard, Director, Marine Mammal Research Program, Coastal Ocean Research Institute, [Evidence](#), 30 October 2018.

94 Christianne Wilhelmson, Executive Director, Georgia Strait Alliance, [Evidence](#), 30 October 2018.

95 Margot Venton, Director, Nature Program, Ecojustice Canada, [Evidence](#), 1 November 2018.

96 Sonia Simard, Director, Legislative Affairs, Shipping Federation of Canada, [Evidence](#), 30 October 2018.

97 Carrie Brown, Director, Environmental Programs, Vancouver Fraser Port Authority, [Evidence](#), 30 October 2018.



#### **Recommendation 17**

**That the Government of Canada investigate the impacts of commercial and recreational whale-watching on Southern Resident Killer Whales in feeding refuges.**

#### **Recommendation 18**

**That, outside of feeding refuges, the Government of Canada establish and strictly enforce a 200- metre buffer between all vessels and Southern Resident Killer Whales, as well as speed restrictions for commercial and recreational whale-watching vessels.**

#### **Recommendation 19**

**That the Government of Canada institute a series of operational measures to reduce noise and disturbance from commercial vessels traveling in or near Southern Resident Killer Whales' foraging areas. Key actions include speed limits, redirecting ship traffic away from feeding refuges, and making vessels quieter.**

#### **Recommendation 20**

**That the Government of Canada take steps to limit the cumulative effects of vessel traffic on Southern Resident Killer Whales.**

### **CONCLUSION**

The committee notes that DFO agreed to the Commissioner's Fall 2018 recommendation regarding the implementation of recovery measures already identified in the Department's actions plans within the established time frames to reduce the threats to endangered and threatened whale populations. Therefore, the committee calls on DFO to implement outstanding recovery measures and report on progress against action plans in five-year intervals as required under SARA.

While the committee recognizes that DFO had to undertake rapid fishery management measures in 2018 to prevent NARW mortalities in the Gulf of St. Lawrence, deficiencies in the consultation and integration of fishers' local knowledge process resulted in adverse socio-economic impacts for the Maritimes and Quebec's fishing coastal communities. Recalling the conclusion of its report on marine protected areas in June 2018 and aiming to ensure a healthy coexistence of the whales and the region's fisheries, the committee reiterates that "when local communities are included in the planning and management of the marine environment, they are more likely to support



sustainable management practices and contribute to the success of conservation objectives.”<sup>98</sup>

Regarding the situation of the SRKW on the Pacific coast, the committee heard strong evidence from witnesses on the need to rebuild the depleted Chinook salmon populations. The committee encourages DFO to undertake renewed conservation efforts and examine all options conducive to the restoration of salmon populations critical for the recovery of the SRKW.

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98 House of Commons, “[Healthy Oceans, Vibrant Coastal Communities: Strengthening the \*Oceans Act\* Marine Protected Areas’ Establishment Process](#),” 14<sup>th</sup> Report of the Standing Committee on Fisheries and Oceans, 1<sup>st</sup> Session, 42<sup>nd</sup> Parliament, June 2018.

## APPENDIX A LIST OF WITNESSES

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The following table lists the witnesses who appeared before the Committee at its meetings related to this report. Transcripts of all public meetings related to this report are available on the Committee's [webpage for this study](#).

Organizations and Individuals	Date	Meeting
<b>Association des crabiers acadiens</b> Robert Haché, General Manager	2018/10/25	113
<b>Fédération régionale acadienne des pêcheurs professionnels</b> Jean Lanteigne, Director General	2018/10/25	113
<b>Fisheries Council of Canada</b> Paul Lansbergen, President	2018/10/25	113
<b>Fundy North Fishermen's Association</b> Maria Recchia, Executive Advisor	2018/10/25	113
<b>Grand Manan Fishermen's Association</b> Bonnie Morse, Project Manager Melanie Sonnenberg, General Manager	2018/10/25	113
<b>Maritime Fishermen's Union</b> Carl Allen, President Martin Mallet, Chief Executive Officer	2018/10/25	113
<b>Canadian Whale Institute</b> Moirá Brown, Senior Scientist	2018/10/30	114
<b>Coastal Ocean Research Institute</b> Lance Barrett-Lennard, Director Marine Mammal Research Program	2018/10/30	114
<b>Georgia Strait Alliance</b> Christianne Wilhelmson, Executive Director	2018/10/30	114

<b>Organizations and Individuals</b>	<b>Date</b>	<b>Meeting</b>
<b>Orca Conservancy</b> David Bain, Chief Scientist	2018/10/30	114
<b>Research and Education group on Marine Mammals</b> Robert Michaud, Scientific Director	2018/10/30	114
<b>Canadian Ferry Association</b> Serge Buy, Chief Executive Officer	2018/10/30	115
<b>Lazy Bear Expeditions</b> Walter Daudrich, President	2018/10/30	115
<b>Omega Pacific Hatchery Inc.</b> Carol Schmitt, President	2018/10/30	115
<b>Sport Fishing Institute of British Columbia</b> Owen Bird, Executive Director Martin Paish, Director Business Development	2018/10/30	115
<b>Vancouver Fraser Port Authority</b> Carrie Brown, Director Environmental Programs	2018/10/30	115
<b>As an individual</b> Teresa Ryan, Post-doctoral Research Fellow Forest and Conservation Sciences, University of British Columbia	2018/11/01	116
<b>Ecojustice Canada</b> Margot Venton, Director Nature Program	2018/11/01	116
<b>First Nations Summit</b> Ray Harris, Co-Chair	2018/11/01	116
<b>Prince Edward Island Fishermen's Association</b> Melanie Griffin, Marine Biologist and Program Planner Ian MacPherson, Executive Director	2018/11/01	116

<b>Organizations and Individuals</b>	<b>Date</b>	<b>Meeting</b>
<b>Regroupement des pêcheurs professionnels du Sud de la Gaspésie</b> O'neil Cloutier, Director General	2018/11/01	116
<b>Tsleil-Waututh Nation</b> Gabriel George, Manager Culture and Language Spencer Taft, Project Manager Cumulative Effects	2018/11/01	116
<b>Department of Fisheries and Oceans</b> Adam Burns, Acting Assistant Deputy Minister Fisheries and Harbour Management Philippe Morel, Assistant Deputy Minister Aquatic Ecosystems Sector Patrick Vincent, Regional Director General Region – Québec	2018/11/01	117
<b>Office of the Auditor General</b> Julie Gelfand, Commissioner of the Environment and Sustainable Development Kimberley Leach, Principal Sustainable Development Strategies, Audits and Studies	2018/11/01	117



## APPENDIX B LIST OF BRIEFS

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The following is an alphabetical list of organizations and individuals who submitted briefs to the Committee related to this report. For more information, please consult the Committee's [webpage for this study](#).

**Association des crabiers acadiens**

**Association des pêcheurs professionnels crabiers acadiens**

**Crabiers du Nord-Est Inc.**

**Fisheries Council of Canada**

**Maritime Fishermen's Union**

**Maritime Fishermen's Union**

**New Brunswick Snow Crab processors Association**

**Omega Pacific Hatchery Inc.**

**Regroupement des pêcheurs professionnels du Sud de la Gaspésie**

**Sport Fishing Institute of British Columbia**

**SpringTide Whale Watching & Eco Tours**

**Tsleil-Waututh Nation**

**West Coast Environmental Law Association**





## REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the Committee requests that the government table a comprehensive response to this Report.

A copy of the relevant *Minutes of Proceedings* (Meetings Nos. 113 to 117 and 122 to 124) is tabled.

Respectfully submitted,

Ken McDonald  
Chair



## Supplementary opinion of the New Democratic Party

The federal government's Recovery Strategy for Southern Resident Killer Whales identifies three main threats to the population: environmental contamination, acoustic and physical disturbance, and reduced availability of preferred prey, (ie. Chinook salmon). All three of these threats would be significantly exacerbated by the Trans Mountain pipeline expansion. The government's push for this project is therefore contradictory to its plan to better protect these whales and to recommendations contained in this Fisheries and Oceans Committee report.

1. Therefore, the New Democratic Party of Canada recommends the government of Canada cancel plans to proceed with the Trans Mountain pipeline expansion project.

It is astounding to note that, despite its legal obligation to protect endangered species, the federal government has chosen not to take action to protect the Southern Resident Killer Whales when it has had the chance to do so. On November 1, 2018, the Governor in Council refused to issue an emergency order under the *Species at Risk Act*, despite a legal suit filed by conservation groups calling for such an order – and over the recommendation of the Minister of Environment and the Minister of Fisheries and Oceans.

2. Therefore, the New Democratic Party of Canada recommends the government of Canada issue an emergency order under the Species at Risk Act to provide immediate legal protection for endangered southern resident killer whales.

Witnesses testified a long term strategy is necessary to ensure prey availability for Southern Resident Killer Whales. Threat to Chinook salmon, the southern resident killer whale's preferred prey, include a warming ocean and freshwater temperatures, destruction of stream and estuary habitats, fishing pressures, and pollution.

3. Therefore, the New Democratic Party of Canada recommends Fisheries and Oceans Canada ensure prey availability through the creation of feeding refuges, closed to commercial and recreational salmon fishing.

