

- Center for Biological Diversity • Defenders of Wildlife •
- The Humane Society of the United States • Humane Society International •
- Whale and Dolphin Conservation •

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*Via email and U.S. mail*

2 October 2017

Dear Sirs:

On behalf of our millions of members in the United States and Canada, we write to urge your Government to implement additional measures to protect critically endangered North Atlantic right whales. We are gravely concerned about the eleven confirmed North Atlantic right whale mortalities in the Gulf of St. Lawrence over the last four months. Together with the three confirmed right whale mortalities in U.S. waters since April of 2017, these deaths represent approximately three percent of the entire population. Scientific information available even before this alarming spate of deaths indicated that the population is declining. The recent mortalities will only compound the species' highly imperiled status.

The right whale mortalities in Canadian waters, many of which have been found to be caused by entanglement in snow crab fishing gear or ship strikes, underscore the urgent need for Canada to take effective, permanent actions to safeguard the species

from these threats that risk its extinction. Specifically, we urge the Government to enact permanent seasonal mandatory speed limits in the Gulf of St. Lawrence and the Bay of Fundy to prevent right whales from being struck and killed by vessels as well as measures to reduce the risk that right whales will suffer injury, death, and reproductive failure from entanglement in commercial fishing gear. Without immediate, strong action from Canada, the right whale faces a serious prospect of extinction.

## I. The Critically Endangered North Atlantic Right Whale

With a population of fewer than 500 animals, the North Atlantic right whale (*Eubalaena glacialis*) is one of the world's most endangered whale species.<sup>1</sup> Despite legal protections in both Canadian and U.S. waters, as well as international legal protections, the species has failed to recover to a sustainable population level. The National Marine Fisheries Service (NMFS), the expert agency within the U.S. Department of Commerce's National Oceanic and Atmospheric Administration charged with conserving the North Atlantic right whale, has stated that the species' survival is dependent on protecting every individual, concluding that the "loss of even a single individual may contribute to the extinction of the species."<sup>2</sup>

Alarming, the best available scientific data, even before this summer's horrifying death toll became apparent, demonstrate that the right whale population is not only failing to recover but is actually in decline. According to the most recent stock assessment report from NMFS, "examination of the minimum number alive calculated from the individual sightings database, as it existed on October 2015, for the years 1990–2012. . . suggests that abundance has declined."<sup>3</sup> Other studies also indicate that the right whale population is declining in abundance, with the drop steepest among female right whales.<sup>4</sup> Indeed, a paper just published in *Ecology and*

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<sup>1</sup> National Marine Fisheries Service, *2016 Stock Assessment: North Atlantic Right Whale* at 20 (Feb. 2017) (2016 SAR) ("The North Atlantic right whale is considered one of the most critically endangered populations of large whales in the world.").

[https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf)

<sup>2</sup> National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Advance Notice of Proposed Rulemaking for Right Whale Ship Strike Reduction, 69 Fed. Reg. 30,857, 30,858 (June 1, 2004).

<sup>3</sup> 2016 SAR at 11.

<sup>4</sup> North Atlantic Right Whale Consortium 2016 Annual Report Card, Report to the North Atlantic Right Whale Consortium, November 2016; NMFS, Key Outcomes, Atlantic Large Whale Take Reduction Team Meeting April 25-27, 2017: Providence, RI at 3 (June 2017); Richard Pace, Trends and Population Status NA Right Whales, Apr. 2017, Presentation to Atlantic Large Whale Take Reduction Team, Providence RI, <https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/docs/2017%20April%20Meetin>

*Evolution* on September 18, 2017, states that “[t]he probability that the population’s trajectory post-2010 [is] a decline [is] estimated at 99.99%.”<sup>5</sup>

Another recent paper by right whale scientists, published in 2016, expressed grave concern about the status of the population.<sup>6</sup> As the authors explained, “since 2010, calving rates have dropped by nearly 40%, and the last four decades have seen increasing numbers of right whales killed, primarily by entanglement in fishing gear.”<sup>7</sup> The scientists stated their view that “the recent science suggests that fishing gear entanglements are increasing in number and severity, and that this source of injury and mortalities may be overwhelming recovery efforts.”<sup>8</sup>

## II. Canada’s Commitment to Protecting North Atlantic Right Whales

Canada has committed itself at both the international and domestic levels to the conservation and recovery of imperiled species such as the North Atlantic right whale. Following its signature and ratification of the Convention on Biological Diversity in 1992, Canada became a party to the convention in 1993. Subsequently, to implement its commitments under the convention and in fulfillment of the National Strategy for the Protection of Species at Risk, Canada enacted the Species at Risk Act (SARA or Act) in 2002.

SARA’s stated purpose is “to prevent wildlife species from being extirpated or becoming extinct” and “to provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity[.]” S.C. 2002, c. 29, s. 6. *See also id.* at Preamble (“[T]he Government of Canada is committed to conserving biological diversity and to the principle that, if there are threats of serious or irreversible damage to a wildlife species, cost-effective measures to prevent the reduction or loss of the species should not be postponed for a lack of full scientific certainty[.]”).

Beginning in 1980, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assessed the North Atlantic right whale as Endangered; it reaffirmed

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[g%20Docs/right\\_whale\\_population\\_status\\_trt\\_april\\_2017.pdf](#); Pace, R., P. Corkeron and S. Kraus (2017). Trend in abundance of North Atlantic right whales. *Ecology & Evolution* 1-12, DOI: 10.1002/ece3.3406. <http://onlinelibrary.wiley.com/doi/10.1002/ece3.3406/full>

<sup>5</sup> Pace *et al.* (2017).

<sup>6</sup> Kraus, S., R. Kenney, C. Mayo, W. McLellan, M Moore and D. Nowacek (2016). Recent Scientific Publications Cast Doubt on North Atlantic Right Whale Future. *Frontiers in Marine Science*. Opinion. August 17, 2016.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

that designation in assessments in 1985, 1990, 2003, and 2013.<sup>9</sup> In January 2005, the North Atlantic right whale was listed as Endangered under Schedule 1, Part 2 of the Act. As a result, the statutory provisions of section 32 that prohibit the killing, harming, harassing, capture, or take of listed species apply to the right whale. For critical habitat designated pursuant to the Act for the species, *i.e.*, Grand Manan Basin in the Bay of Fundy and Roseway Basin on the southwestern Scotian Shelf, destruction of that habitat is prohibited by section 58 of the Act.<sup>10</sup>

As per SARA's requirements, c. 29, s. 37, Fisheries and Oceans Canada first published a Recovery Strategy in 2009, and later issued a revised Recovery Strategy in 2014 that updated the description of critical habitat.<sup>11</sup> The Recovery Strategy acknowledged that “[t]he role of Canada in protecting North Atlantic right whales and promoting their recovery is crucial because a very high proportion of the extant population spends all or part of the summer and autumn months in Canadian waters.”<sup>12</sup> As an interim Recovery Goal, the Recovery Strategy aims “[t]o achieve an increasing trend in population abundance over three generations.”<sup>13</sup>

Entanglement in fishing gear and ship strikes are well known to be the two primary factors that have impeded the species' recovery and may now jeopardize its very survival.<sup>14</sup> Accordingly, the Recovery Strategy identifies reducing mortality and injury due to vessel strikes and due to fishing gear interactions as the first two objectives necessary to accomplish the interim Recovery Goal.<sup>15</sup> The key Performance Indicator for the objective of reducing mortality and injury due to vessel strikes is where there is a decline in the rate of interactions in Canadian waters. The key Performance

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<sup>9</sup> Fisheries and Oceans Canada. 2016. Report on the Progress of Recovery Strategy Implementation for the North Atlantic right Whale (*Eubalaena glacialis*) in Canadian Waters for the Period 2009–2014 at 2. *Species at Risk Act* Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa. (Progress Report). [http://www.sararegistry.gc.ca/virtual\\_sara/files/5yr-NARW-v00-2016Oct03-Eng.pdf](http://www.sararegistry.gc.ca/virtual_sara/files/5yr-NARW-v00-2016Oct03-Eng.pdf) See also Species at Risk Public Registry, Species Profile: North Atlantic Right Whale. [http://www.registrelep-sararegistry.gc.ca/species/speciesDetails\\_e.cfm?sid=780](http://www.registrelep-sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=780)

<sup>10</sup> The right whale is also protected from hunting and harassment under the Marine Mammal Regulations (SOR/93-56) promulgated pursuant to the Fisheries Act (R.S.C. 1985, c. F-14).

<sup>11</sup> Fisheries and Oceans Canada. 2014. Recovery Strategy for the North Atlantic Right Whale (*Eubalaena glacialis*) in Canadian Waters [Final]. *Species at Risk Act* Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa. [http://www.registrelep-sararegistry.gc.ca/virtual\\_sara/files/plans/rs\\_bnan\\_narw\\_am\\_0414\\_e.pdf](http://www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/rs_bnan_narw_am_0414_e.pdf)

<sup>12</sup> Recovery Strategy at iv.

<sup>13</sup> *Id.* at v.

<sup>14</sup> *Id.* at 19–23; Progress Report at 3; see also National Marine Fisheries Service, *Recovery Plan for the North Atlantic Right Whale (Eubalaena glacialis)* (Aug. 2004) at v. [http://www.nmfs.noaa.gov/pr/pdfs/recovery/whale\\_right\\_northatlantic.pdf](http://www.nmfs.noaa.gov/pr/pdfs/recovery/whale_right_northatlantic.pdf)

<sup>15</sup> Recovery Strategy at 35–36.

Indicator for the objective of reducing mortality and injury due to fishing gear interactions is whether there is a decline of the rate of interactions in Canadian waters.<sup>16</sup>

Unfortunately, as the events of this summer bear out, Canada's recovery efforts are falling far short of meeting either of these Performance Indicators. Although causes of death have not yet been made public for all eleven confirmed dead right whales in Canadian waters, it is already clear that a number of the mortalities were caused by either vessel strikes or fishery gear entanglements. Scientific information indicates that right whales will likely increase their summer range in the Gulf of St. Lawrence, as researchers have predicted that *Calanus*, the primary prey of right whales, may be functionally extirpated south of the Gulf of St. Lawrence by 2050 due to climate change.<sup>17</sup> This means that right whales will likely face increased risk of entanglement and ship strikes in Canada in future years. Your Government must therefore demonstrate its commitment to protecting the North Atlantic right whale by implementing additional measures to protect right whales from these two primary threats to the species' continued existence.

### **III. Canada Must Implement Additional, Mandatory Measures to Protect North Atlantic Right Whales from Ship Strikes**

Protecting right whales from ship strikes is extraordinarily important to the species' survival and recovery because "a disproportionate number of ship strike victims are female right whales."<sup>18</sup> One of the most significant steps Canada has taken to date to protect right whales from ship strikes is the 2003 relocation of traffic separation scheme to relocate shipping lanes in the Bay of Fundy from an area of high right whale density to an area of lower right whale density. However, although the Bay of Fundy relocation of shipping lanes in 2003 was certainly a positive step, as far as we are aware, there are no speed restrictions in place to protect right whales that might venture into the shipping lanes. Similarly, the 2008 establishment of a recommended seasonal Area to Be Avoided in Roseway Basin for ships of 300 gross tonnage and upwards, although a positive step, does not fully protect right whales because it does not require mandatory speed restrictions.

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<sup>16</sup> Recovery Strategy at 39.

<sup>17</sup> Reygondeau, G. & Beaugrand, G. Future climate-driven shifts in distribution of *Calanus finmarchicus*. *Glob. Change Biol.* **17**, 756–766 (2011).

<sup>18</sup> National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce. Final Rule To Implement Speed Restrictions to Reduce the Threat of Ship Collisions With North Atlantic Right Whales. 73 Fed. Reg. 60,173, 60,274 (Oct. 10, 2008).

At least two of the right whale mortalities in the Gulf of St. Lawrence this summer were likely to have been caused by ship strikes.<sup>19</sup> In response, Transport Canada imposed a mandatory ten-knot speed limit for vessels over twenty meters in the western part of the gulf through the end of the autumn migration season.<sup>20</sup> This temporary measure, while laudable, must be replaced as soon as possible—and no later than the return of the right whales to Canadian waters next year—with measures to make permanent such mandatory speed restrictions during those times of year when right whales are present.

In U.S. waters, the ship strike rule promulgated by NMFS in 2008 establishes a ten knot mandatory speed limit for all vessels 65 feet or greater in length in three Seasonal Management Areas (the Northeast, the mid-Atlantic, and the Southeast) corresponding with the whales' migratory patterns.<sup>21</sup> In addition, the rule establishes a program of voluntary slow speeds in Dynamic Management Areas, temporary areas of at least a three nautical mile radius drawn around aggregations of three or more right whales in areas not already included in Seasonal Management Areas.<sup>22</sup>

In the five-year period between 2008 and 2013, when the ship strike rule was made permanent,<sup>23</sup> data and studies confirmed the effectiveness of speed limits in reducing ship strike risk for whales generally and the efficacy of the 2008 rule specifically.<sup>24</sup> NMFS determined that the speed restrictions reduced total ship strike mortality risk

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<sup>19</sup> Nathalie Sturgeon, "Another North Atlantic right whale found dead in Gulf of St. Lawrence," September 15, 2017. <http://www.cbc.ca/beta/news/canada/new-brunswick/north-atlantic-right-whale-found-dead-miscou-island-1.4293037>; Elizabeth Fraser, "Dead right whales show evidence of collision with vessels, wildlife pathologist says," July 4, 2017. <http://www.cbc.ca/news/canada/new-brunswick/necropsies-right-whales-endangered-1.4189133>

<sup>20</sup> Bobbi-Jean MacKinnon, "Ottawa to force ships to slow down to prevent whale deaths in Gulf of St. Lawrence," August 11, 2017. <http://www.cbc.ca/news/canada/new-brunswick/whale-deaths-gulf-temporary-measures-fisheries-transport-1.4242512>

<sup>21</sup> 50 C.F.R. § 224.105.

<sup>22</sup> 73 Fed. Reg. at 60,180.

<sup>23</sup> National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce. Final Rule To Remove the Sunset Provision of the Final Rule Implementing Vessel Speed Restrictions To Reduce the Threat of Ship Collisions With North Atlantic Right Whales. 78 Fed. Reg. 73,726 (Dec. 9, 2013).

<sup>24</sup> See Silber, G.K. and S. Bettridge. 2012. An Assessment of the Final Rule to Implement Vessel Speed Restrictions to Reduce the Threat of Vessel Collisions with North Atlantic Right Whales. U.S. Dept. of Commerce, NOAA Technical Memorandum NMFS-OPR-48 (2012 Ship Speed Analysis) and literature cited therein.

[http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/assessment\\_nmfsopr48.pdf](http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/assessment_nmfsopr48.pdf)

levels by 80–90%.<sup>25</sup> Studies show that in the first five years after the rule became effective, no ship-struck whales were found inside or within 45 nautical miles of any active seasonal management area.<sup>26</sup> Since publication of that research, and through the end of 2016, only one mortality resulting from a vessel strike has been confirmed to have occurred within an active seasonal management area. Notably, these conservation benefits were achieved at significantly lower direct and indirect economic impacts than had been originally anticipated.<sup>27</sup>

Additionally, speed reductions result in a reduction in ocean noise for vessels with cavitating propellers.<sup>28</sup> Research reveals that chronic stress in North Atlantic right whales is associated with exposure to low-frequency noise from ship traffic and can adversely affect the whales' ability to reproduce and impair their immune systems.<sup>29</sup> As a result, slowing ship traffic in right whale habitat will not only reduce the risk of ship strike, but can provide long-term population level benefits by reducing chronic stress.

Although there is certainly room for significant improvement to the U.S. ship strike rule (*e.g.*, by applying it to smaller vessels and expanding the areas of mandatory speed restrictions), we believe it is a model of an evidence-based, cost-effective regulation worthy of emulation. We urge your Government to take all necessary measures before

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<sup>25</sup> Conn, P.B., and G.K. Silber. 2013. Vessel speed restrictions reduce risk of collision-related mortality for North Atlantic right whales. *Ecosphere* 4(4):43. <http://dx.doi.org/10.1890/ES13-00004.1>

<sup>26</sup> David W. Laist, Amy R. Knowlton, Daniel Pendleton. 2014. Effectiveness of mandatory vessel speed limits for protecting North Atlantic right whales. *Endang Species Res.* Vol. 23: 133–147, doi: 10.3354/esr00586; *see also* National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce. Proposed Rule To Eliminate the Expiration Date Contained in the Final Rule To Reduce the Threat of Ship Collisions With North Atlantic Right Whales. 78 Fed. Reg. 34,024 (June 6, 2013) (noting that as of 2013, “no right whale vessel strike-related fatalities have occurred in or near the vessel speed restriction areas established by the 2008 rule.”).

<sup>27</sup> 2012 Ship Speed Analysis at 31.

<sup>28</sup> Okeanos: Foundation for the Sea, Underwater Radiated Noise of Ocean-Going Merchant Ships: A Background Paper Produced by Participants of the International Workshop on Shipping Noise and Marine Mammals, Hamburg, Germany (April 21–24 2008) (Attachment N); *see also* Southall, B. L. and A. Scholik-Schlomer. 2008. Final report of the NOAA International Conference: “Potential Application of Vessel-Quieting Technology on Large Commercial Vessels,” 1–2 May, 2007, Silver Spring, MD, U.S.A. [http://www.nmfs.noaa.gov/pr/pdfs/acoustics/vessel\\_symposium\\_report.pdf](http://www.nmfs.noaa.gov/pr/pdfs/acoustics/vessel_symposium_report.pdf)

<sup>29</sup> Rolland, R, S. Parks, K. Hunt, M. Castellote, P. Corkeron, D. Nowacek, S. Wasser, and S. Kraus. 2012. Evidence that ship noise increases stress in right whales. *Proceedings of the Royal Society B. Biological Sciences.* Feb. 8, 2012. <http://rspb.royalsocietypublishing.org/content/279/1737/2363>

right whales return to Canadian waters next year to ensure that permanent, mandatory speed limit restrictions are in place in the Gulf of St. Lawrence, the Roseway Basin, and the Bay of Fundy to protect right whales from ship strike-caused mortalities and chronic stress.

While your Government's commitment through the Oceans Protection Plan to implement a real-time whale detection system to alert mariners to the presence of whales<sup>30</sup> is a commendable first step, it is no substitute for mandatory speed restrictions. Research in the United States demonstrates that mariner compliance with voluntary measures is low, rendering these measures only minimally effective in reducing the risk of ship strikes.<sup>31</sup> The critically imperiled right whale, as well as other vulnerable large whale species, should not be made to bear the risk of ship strikes should mariners decide not to comply with voluntary slower-speed recommendations when alerted of the presence of whales.

#### **IV. Canada Must Implement Mandatory Measures to Reduce the Risk of Entanglements in Fishing Gear**

Equally imperative to the survival and recovery of North Atlantic right whales is the necessity of significantly reducing right whale entanglements in fishing gear in Canadian waters. This is particularly true for the vertical and horizontal lines that characterize fixed-gear fisheries such as gillnets and traps/pots as well as for the groundfish hook-and-line fishery. As the Progress Report for 2009–2014 stated, as of 2014, the Performance Indicator for reducing mortality and injury from fishing gear interactions had not been met.<sup>32</sup> And as recently observed by Fisheries and Oceans Canada, “[t]he Canadian government, however, has yet to implement policies or regulations to reduce cetacean entanglements in fishing gear, including mitigation measures specifically for North Atlantic right whales.”<sup>33</sup>

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<sup>30</sup> Canada's Oceans Protection Plan: Preserving and restoring Canada's marine ecosystems, <http://pm.gc.ca/eng/news/2016/11/07/canadas-oceans-protection-plan-preserving-and-restoring-canadas-marine-ecosystems>

<sup>31</sup> Laguex, K. *et al.* 2011. Response by vessel operators to protection measures for right whales in the southeast US calving ground. *Endangered Species Research*. 14: May 6, 2011. pp. 69–77. [http://www.intres.com/articles/esr\\_oa/n014p069.pdf](http://www.intres.com/articles/esr_oa/n014p069.pdf); *see also* 2012 Ship Speed Analysis 36–39.

<sup>32</sup> Progress Report at 33–34.

<sup>33</sup> Fisheries and Oceans Canada. 2016. North Atlantic Right Whale: A science based review of recovery actions for three at-risk whale populations at 32. (“Science Based Review”) <http://www.dfo-mpo.gc.ca/species-especes/whalereview-revuebaleine/review-revue/narightwhale-baleinenoirean/index-eng.html>



From 2010 to 2015, entanglement deaths accounted for 85% of diagnosed right whale mortalities.<sup>34</sup> Documented serious injury and mortality rates may significantly underrepresent actual mortality, as many entanglements and entanglement-related mortalities are not observed.<sup>35</sup> As of 2015, 83% of all right whales displayed scarring or carried ropes from past entanglements.<sup>36</sup>

Survivorship for individual North Atlantic right whales is reduced by at least 20% after an entanglement event.<sup>37</sup> In addition to causing serious injuries and mortalities, entanglement in fishing gear has other significant negative impacts on right whales. For example, studies show that chronic entanglement impairs foraging and locomotion, and is likely one of the major contributors to reproductive failure in right whales (and probably all large whales). As explained by one study, impaired locomotion can contribute to starvation while “oral entanglement may pose one of the greatest threats to survival in entangled baleen whales.”<sup>38</sup> Citing a significant increase in stress hormone levels resulting from an entanglement event, the researchers also concluded that chronic stress likely contributes to “the development of systematic infections.”<sup>39</sup>

In another study, researchers stated that “in addition to the documented deaths and disappearances of animals observed bearing fishing gear, the sub-lethal effects of severe wounding or repeated entanglements may include reduced reproduction and increased susceptibility to disease.”<sup>40</sup> A similar study found that “[r]eproductive females seen alive and carrying gear or with severe wounds from entanglement had a

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<sup>34</sup> North Atlantic Right Whale Consortium 2016 Annual Report Card, Report to the North Atlantic Right Whale Consortium, November 2016; Krause S.D., Kenney R.D., Mayo C.A., McLellan W.A., Moore M.J., Nowacek D.P. 2016. Recent Scientific Publications Cast Doubt on North Atlantic Right Whale Future. *Front. Mar. Sci.* 3:137. doi: 10.3389/fmars.2016.00137.

<sup>35</sup> COSEWIC. 2013. COSEWIC Assessment and Status Report on the North Atlantic Right Whale *Eubalaena glacialis* In Canada at 29. Committee on the Status of Endangered Wildlife in Canada.  
[http://www.sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr\\_North%20Atlantic%20Right%20Whale\\_2013\\_e.pdf](http://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_North%20Atlantic%20Right%20Whale_2013_e.pdf)

<sup>36</sup> Krause S.D. *et al.*, *supra* note 29, at 2.

<sup>37</sup> Jooke Robbins, Amy R. Knowlton, Scott Landry, Apparent survival of North Atlantic right whales after entanglement in fishing gear. 2015. *Biological Conservation*, Vol. 191, pp. 421-427, ISSN 0006-3207, <http://dx.doi.org/10.1016/j.biocon.2015.07.023>

<sup>38</sup> Cassoff RM, Moore KM, McLellan WA, Barco SG, Rotstein DS, Moore MJ. 2011. Lethal entanglement in baleen whales. *Dis Aquat Org* 96: 175–185.

<sup>39</sup> *Id.*

<sup>40</sup> Amy Knowlton, Whale Release Ropes, Presentation to the Atlantic Large Whale Take Reduction Team, at 6, Apr. 2017,  
[https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/docs/2017%20April%20Meeting%20Docs/knowlton-awtrt\\_2017\\_1.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/docs/2017%20April%20Meeting%20Docs/knowlton-awtrt_2017_1.pdf)

significantly lower chance of calving again. Females that experienced moderate or severe entanglement wounds between calvings had a significantly longer calving interval than females that experienced minor or no entanglement wounds.”<sup>41</sup> The study concludes that “[h]uman impacts are reducing the reproductive success of this population.”<sup>42</sup> Other recent studies found that “significant sublethal energetic impacts also occur” from entanglements, “especially in reproductive females”<sup>43</sup> and that the drag from fishing gear “can delay reproduction by months or years.”<sup>44</sup>

Canadian fisheries entangle North Atlantic right whales, and regulations to mitigate against the risk of entanglement are lacking. While, as we understand it, Canada closes some of its most southern lobster management areas during the summer, when right whales have historically been present, other areas, including areas in the Bay of Fundy, Roseway Basin, and the Gulf of St. Lawrence, are open through June or July, when right whales may be present.<sup>45</sup> There are no risk reduction measures mandated for fixed gear fisheries during the open season; existing guidelines are only voluntary.<sup>46</sup>

Additionally, a 2011 study found that gear which uses buoyed end-lines, “presents considerable and extensive risk of lethal entanglement in each of the Fundy and Roseway study areas.”<sup>47</sup> The authors recommended consideration of gear modifications, including weak links and sinking groundlines, as well as seasonal closures to reduce risk.<sup>48</sup> While this study took place in the Bay of Fundy, Roseway Basin and the Scotian Shelf, its findings are also relevant for emerging habitats in the

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<sup>41</sup> Knowlton, A., P. Hamilton, and H. Pettis. 2012. Status of Reproductive Females in the North Atlantic Right Whale Population and Impacts of Human Activities on their Reproductive Success. Report Submitted to Woods Hole Oceanographic Institution. September 30, 2012.

<sup>42</sup> *Id.*

<sup>43</sup> Julie M. van der Hoop, Douglas P. Nowacek, Michael J. Moore, M. S. Triantafyllou. 2017. Swimming kinematics and efficiency of entangled North Atlantic right whales. *Endang Species Res.* Vol. 32: 1–17, 2017, doi: 10.3354/esr00781; Julie van der Hoop, Peter Corkeron and Michael Moore. 2016. Entanglement is a costly life-history stage in large whales. *Ecology and Evolution.* DOI: 10.1002/ece3.2615.

<sup>44</sup> *Id.*

<sup>45</sup> *See* Inshore Lobster (*Homarus americanus*) Integrated Fisheries Management Plan (Summary) Maritime Region (20110). <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/ifmp-gmp/maritimes/insholob-2011-eng.htm>

<sup>46</sup> Angelia S.M., R. Vanderlaan, K. Smedbol, and C.T. Taggart. 2011. Fishing-gear threat to right whales (*Eubalaena glacialis*) in Canadian waters and the risk of lethal entanglement. [http://www.phys.ocean.dal.ca/~taggart/Publications/Vanderlaan\\_etal\\_2011.pdf](http://www.phys.ocean.dal.ca/~taggart/Publications/Vanderlaan_etal_2011.pdf); *see also* Science Based Review at 32.

<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

Gulf of St. Lawrence where fixed gear fisheries including lobster and snow crab operate.

The snow crab fishery is also emerging as a significant threat to right whales. For example, in 2015 and 2016, the snow crab fishery was responsible for at least three right whale entanglements in the Gulf of St. Lawrence, with one confirmed mortality.<sup>49</sup> In 2017, the snow crab fishery in the Gulf of St. Lawrence is likely responsible for at least two right whale deaths this summer, out of at least seven right whales entangled in the Gulf.<sup>50</sup> Canadian officials believe that all seven entanglements likely involved snow crab gear.<sup>51</sup> As recently as September 18, a dead right whale was towed to shore, tightly wrapped in heavy ropes with a large snow crab trap attached.<sup>52</sup> Although on July 20, 2017, after the eighth confirmed right whale mortality in the Gulf of St. Lawrence, Fisheries and Oceans Canada closed snow crab Fishing Area 12, two days early, the harvest was already 98% complete.<sup>53</sup> The recent spike in right whale entanglements in snow crab gear in the Gulf of St. Lawrence coincides with Fisheries and Oceans Canada's doubling of the total allowable catch in the southern Gulf of St. Lawrence for the 2017 season.<sup>54</sup>

As the Recovery Strategy states, and as this summer's right whale deaths underscore, "[a] serious threat to right whales is injury and mortality from fishing gear interactions

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<sup>49</sup> Karissa Donkin, "7 right whale entangled this summer, new data shows," September 25, 2017. <http://www.cbc.ca/news/canada/new-brunswick/right-whale-entanglements-fishing-ropes-1.4302530>

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> Shane Fowler, "Snow crab trap cut from right whale carcass on N.B. island," September 18, 2017. <http://www.cbc.ca/beta/news/canada/new-brunswick/nb-snow-crab-trap-cut-from-dead-whale-1.4295853>

<sup>53</sup> Statement – Closure to Snow Crab Fishery to Protect North Atlantic Right Whales in the Gulf of St. Lawrence. July 20, 2017. <http://www.newswire.ca/news-releases/statement---closure-to-snow-crab-fishery-to-protect-north-atlantic-right-whales-in-the-gulf-of-st-lawrence-635697153.html>; *see also* Elizabeth Fraser, "Snow crab fishery closed after 8<sup>th</sup> right whale found dead in Gulf of St. Lawrence," July 20, 2017. <http://www.cbc.ca/news/canada/new-brunswick/right-whale-dead-gulf-st-lawrence-1.4213660>; Olivia Chandler, "Necropsy completed for 8<sup>th</sup> right whale found dead," July 22, 2017. <http://www.cbc.ca/news/canada/new-brunswick/whale-dead-miscou-new-brunswick-1.4217620>

<sup>54</sup> *See, e.g.*, Fisheries and Oceans Canada, Snow Crab in the Southern Gulf of St. Lawrence – Crab Fishing Areas 12, 12E, 12F and 19, 2017 Season (setting total allowable catch at 43,822.09 tonnes), <http://www.dfo-mpo.gc.ca/decisions/fm-2017-gp/atl-03-eng.htm>; Fisheries and Oceans Canada, Snow Crab in the Southern Gulf of St. Lawrence – Crab Fishing Areas 12, 12E, 12F and 19, 2016 Season, <http://www.dfo-mpo.gc.ca/decisions/fm-2016-gp/atl-12-eng.htm> (setting total allowable catch at 21,758.96 tonnes), <http://www.dfo-mpo.gc.ca/decisions/fm-2017-gp/atl-03-eng.htm>

in Canadian waters: this may affect the survival of the species. To increase the chances for survival, the number and severity of entanglements or entrapments must be reduced.”<sup>55</sup> And as the Science Based Review observed, “To ensure a healthy population of North Atlantic right whales, entanglement events should be prevented rather than relying on reacting to observed entangled whales and attempting disentanglements as the primary means of reducing the threat. Prevention rather than reaction is required for North Atlantic right whale recovery.”<sup>56</sup>

To implement the Recovery Strategy, in 2016, Fisheries and Oceans Canada developed a proposed action plan to address fishery interactions.<sup>57</sup> This action plan has not yet been finalized. In light of this summer’s fishery-caused mortalities, the urgent necessity of finalizing this action plan has become apparent. It is critical that the Government follow through on the Recovery Strategy’s directive to implement strategies such as gear modifications and effort restrictions to reduce the potential for harmful interactions between fishing gear and right whales.<sup>58</sup> Moreover, it is critical that the Government expedite the development of specific mitigation measures, such as time-area closures, gear modifications, and/or gear reductions.<sup>59</sup> These rules are particularly important for fisheries that overlap in times and areas of high right whale activity, such as the snow crab fishery in the Southern Gulf of St. Lawrence.

These measures will help reduce the risk that individual right whales will be killed or seriously injured and help prevent another catastrophic mortality event such as the right whales experienced this summer. Thus, we urge the Government to revise the action plan before finalizing it to prioritize development and implementation of specific mitigation measures.<sup>60</sup> We also urge the Government to use all available statutory authorities, including but not limited to the emergency provisions of SARA section 80, in service of this goal.

It is also critical that the Government work to develop a comprehensive gear marking system and require fisheries to implement area-specific gear markings in Atlantic Canadian waters. The proposed action plan states that “[t]he study of gear retrieved from entanglement incidents is one of the most important methods used to determine how entanglements occur and thus how they can be prevented.”<sup>61</sup> However,

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<sup>55</sup> Recovery Strategy at 36.

<sup>56</sup> Science Based Review at 40.

<sup>57</sup> Action plan for the North Atlantic Right Whale (*Enbalaena glacialis*) in Canada: Fishery Interactions (“Action Plan”). <http://www.sararegistry.gc.ca/default.asp?lang=En&n=F6E69C11-1>

<sup>58</sup> *Id.*

<sup>59</sup> Science Based Review at 52–54, 56.

<sup>60</sup> Action Plan.

<sup>61</sup> *Id.*

according to the Science Based Review, “DFO is developing an amendment to the Fisheries Act Regulations Section 27: Identification of Fishing Gear, which currently requires both ends of fixed gear to be marked; the amendment will permit the use of a single tag, float or buoy in approved fisheries.”<sup>62</sup> While this is presented as an achievement, it appears that this measure would reduce gear marking, making identification of gear found on whales more difficult. Without a comprehensive gear marking scheme, it will continue to be difficult to attribute gear retrieved from entanglement incidents to a particular fishery. We urge your Government to work with its counterparts in the United States on the development and implementation of a gear marking scheme that will better enable identification of entangling gear to a particular fishery.

The Recovery Strategy identifies “Support[ing] emergency response and disentanglement programs in eastern Canada that are able to rapidly respond to reports of entangled or entrapped right whales” as a priority.<sup>63</sup> Similarly, the Proposed Action Plan identifies building greater emergency response capacity in Atlantic Canada through the dedication of adequate resources as a priority for disentanglement response. As this summer’s experience demonstrates, much greater governmental funding and support for disentanglement teams are urgently needed. To date, Canada has relied on volunteer-led disentanglement efforts with minimal governmental financial or logistical support.<sup>64</sup> We strongly urge your Government to ensure that funds available through the \$1.5 billion Oceans Protection Plan<sup>65</sup> or other resources are invested as a top priority to fund, staff, and train rapid-response disentanglement teams for right whales and other marine mammals.

## V. Conclusion

The North Atlantic right whale simply cannot withstand as a species another catastrophic mortality event such as it experienced this summer in Canadian waters. We urge the Government to use all available statutory authorities and financial resources to respond effectively to declining right whale abundance and the increasing risk of deaths and serious injuries of right whales in Canadian waters, including this summer’s unprecedented level of right whale mortalities. The Government must ensure that effective measures to reduce the risks to right whales from vessel strikes

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<sup>62</sup> Science Based Review at 12.

<sup>63</sup> Recovery Strategy at 36.

<sup>64</sup> Karissa Donkin, “The untold story of whale rescuer Joe Howlett’s death,” September 19, 2017. <http://www.cbc.ca/news/canada/new-brunswick/campobello-whale-rescue-funding-1.4287869>

<sup>65</sup> Canada’s Ocean Protection Plan, <https://www.tc.gc.ca/eng/canada-oceans-protection-plan.html>

and fishing gear entanglements are implemented as soon as possible to help save the right whale from extinction and put the species on the path to recovery.

Thank you for your attention to the critical need to protect North Atlantic right whales in Canadian waters.

Sincerely,



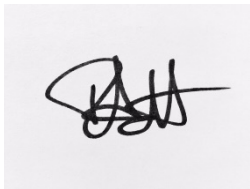
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