

# CABOT STRAIT: STILL A DANGEROUS PASSAGE

## Why right whales need mandatory slowdowns

With only around 380 individuals left,<sup>1</sup> North Atlantic right whales must be protected from two major threats: ship strikes and entanglement in fishing gear. The Government of Canada has built an important foundation of measures to reduce these risks as right whales migrate through Canadian waters, including mandatory slowdowns, restricted areas, and a broad suite of technologies to monitor whale presence, along with expert input.

Since 2020, Oceana Canada has used Global Fishing Watch to analyze 8,259 vessel transits through a voluntary slowdown in the Cabot Strait. The findings are stark, demonstrating that voluntary measures don't work.

**57% of transit in the Cabot Strait were at speeds over 10 knots, speeds that can kill a right whale on impact.**

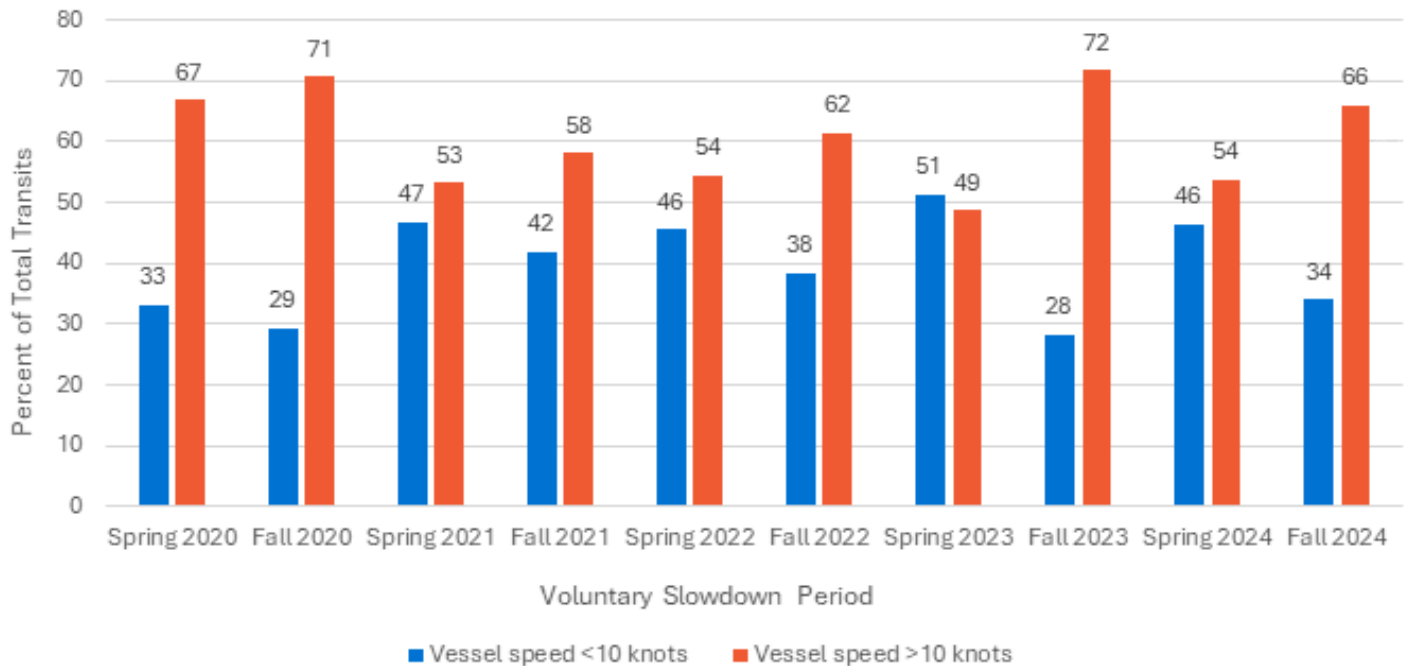
### Key findings

- Compliance with the voluntary 10-knot speed limit held steady at 43% between 2020 and 2024, with no improvement in any year, spring or fall.
- Most vessels travelled faster than the recommended speed.
- In the two weeks before and after each slowdown period, only 14% of vessels travelled under 10 knots, highlighting the limited effectiveness of voluntary measures.
- Spring compliance was slightly higher, mainly due to safer weather.
- Most transits were by cargo, tanker, and passenger vessels. New research shows that vessels longer than 107 metres (350 feet), the largest class, pose the greatest risk — able to kill right whales at any speed.

*IMPORTANT NOTE: This analysis covers vessel speeds only during voluntary slow down periods. It excludes days when Transport Canada temporarily lifted the slowdown due to adverse weather, which can pose safety risks to crews and vessels. Severe weather and sea-state conditions are common in the Cabot Strait, especially in the fall. These necessary exemptions make strong, mandatory measures even more important when vessels can safely slow down.*

Authors: Hanna Vatcher and Kim Elmslie | Published December 2025 by Oceana Canada

## Cabot Strait vessel transits above and below 10 knots during spring and fall voluntary slowdowns (%), 2020-2024.



## Key recommendations to protect right whales

Oceana Canada urges Transport Canada to adopt the following measures:

- 1. Make the Cabot Strait slowdown mandatory and season-long.** Set a 90% compliance target and extend measures through summer months, when right whales are present.<sup>2</sup>
- 2. Expand the use of comprehensive monitoring technologies** – including acoustic, satellite and infra-red tools – to better understand whale movements in the Cabot Strait and other Canadian waters.
- 3. Adopt a regulatory approach** that provides permanent protection for the whales and predictability for vessel operators. This strengthens consistency in decision-making and includes all stakeholders.
- 4. Support innovative technological solutions** being used to protect whales from ship strikes around the world.





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## Innovative measure: the restricted area in the Shediac Valley

Since 2020, Transport Canada has implemented a restricted area in the Shediac Valley, where large aggregations of right whales are found in summer. Once 80% of the area is closed to fishing due to whale presence, it also closes to vessel traffic. Exempt vessels must slow to eight knots. This is a proactive, forward-looking conservation measure that protects whales where they congregate.



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## ANATOMY OF INACTION

### What the data reveals

Oceana Canada's five-year study, using Ship Speed Watch,<sup>3</sup> powered by Global Fishing Watch,<sup>4</sup> tracked every vessel longer than 13 metres transiting the Cabot Strait during spring and fall voluntary slowdown periods from 2020 to 2024.

Findings include:

- 8,259 total transits by 4,905 individual vessels.
- Only 43% of transits (3,533) were under 10 knots.
- Compliance did not improve over the five-year period, despite mounting evidence of risk: 43% in 2020, 44% in 2021, 43% in 2022, and 42% in 2023 and 2024.
- Spring compliance was generally higher, likely due to better weather.
- Mandatory slowdowns are feasible: most vessels travelled between 10 and 14 knots, and few exceeded 14 knots.



# Measures are making an impact

During the two-week period before and after the slowdown, 86% of vessels exceeded 10 knots, compared to 57% during the voluntary slowdown period. There were 3,660 total transits in the pre- and post-slowdown window; of these, only 496 transits (14%) travelled under 10 knots. Compared to 43% compliance during the slowdown periods, 29% of vessels reduced speed once the slowdown took effect. This indicates that voluntary slowdowns do influence behaviour, but not enough to prevent lethal strikes.

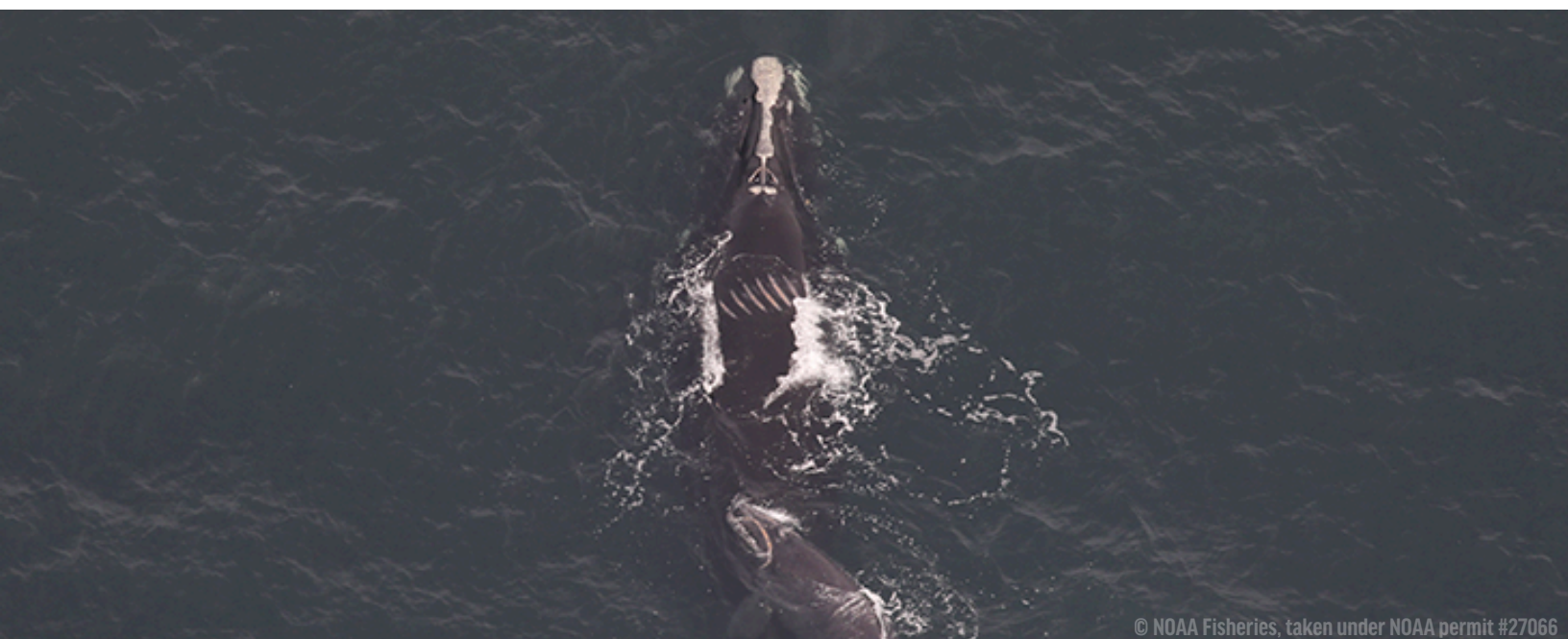
Fisheries and Oceans Canada found that mandatory measures reduce the risk of deadly ship strikes by 56%.<sup>5</sup> Oceana studies in U.S. waters show similar results: voluntary zones underperform, while mandatory zones consistently improve compliance. For example, 41% of vessels in a voluntary area south of Nantucket exceeded the 10-knot limit, while only 12% did so in a mandatory 10-knot zone off Block Island, Rhode Island.<sup>6</sup> In California, none of the vessels in a voluntary slowdown zone complied with the recommended 10-knot limit.<sup>7</sup> The only effective approach was mandatory speed reductions.

A 2024 trial in Stellwagen Bank National Marine Sanctuary tested Motion Info's Automatic Identification System (AIS)-based alert system.

When vessels received targeted messages notifying them they were travelling too fast through a slowdown area, 85% reduced speed and remained compliant. Making the slowdown mandatory in the Cabot Strait — paired with better real-time communication — would increase compliance and strengthen protections for right whales.

## About us

Oceana Canada was established as an independent charity in 2015 and is part of the largest international advocacy group dedicated solely to ocean conservation. Oceana Canada has successfully campaigned to ban single-use plastics, end the shark fin trade, make rebuilding depleted fish populations the law, improve the way fisheries are managed and protect marine habitat. We work with civil society, academics, fishers, Indigenous Peoples and the federal government to return Canada's formerly vibrant oceans to health and abundance. By restoring Canada's oceans, we can strengthen our communities, reap greater economic and nutritional benefits and protect our future. Find out more at [Oceana.ca](https://oceana.ca).



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# How we reached our conclusions

Oceana's Ship Speed Watch is a public mapping tool that allows users to monitor vessel speeds in slowdown zones established to protect marine mammals, including North Atlantic right whales, along the East Coast of Canada and the U.S. in near-real time. The tool uses self-reported data to show ship speeds within active voluntary and mandatory speed-restriction zones. It also provides information about speed and spatial restrictions in place to protect this critically endangered species. When mandatory and enforced, speed-restriction zones can help prevent collisions with vessels. Ship Speed Watch was created based on AIS data from Global Fishing Watch, an independent non-profit organization founded by Oceana in partnership with Google and SkyTruth, which uses cutting-edge technology to interpret data from various vessel-tracking resources.

Oceana Canada used Global Fishing Watch to compile a list of vessel transits that exceeded the voluntary 10-knot limit in Cabot Strait. This data is limited to vessels that carry and broadcast AIS. For example, fishing vessels are not required to broadcast AIS data in Canada, although many do. Oceana Canada tracked the number of distinct AIS signals above the 10-knot speed limit transmitted by vessels inside the speed-restriction zone on a

given day, as well as the highest speed reached by each vessel that day. If a vessel travelled faster than 10 knots on separate days, it appeared in the dataset more than once. However, the weekly summary statistics treat these as one vessel, using the highest recorded speed over the weekly observation period. Weekly values were then summed across the entire period.

Vessel identification information for the report was pulled from Global Fishing Watch's vessel-registration database and filtered to include only vessels with at least two AIS signals during a transit in the Cabot Strait while the voluntary slowdown was in place during the spring and fall from 2020 to 2024. Any speeds that appeared erroneously high were removed. For example, if a vessel's AIS recorded speeds of 11, 12, 11, 11, 38 and 12 knots, the outlier was excluded. In some cases, a vessel's highest AIS reading was removed if it differed substantially from the vessel's maximum attainable speed based on external sources.

To calculate compliance rates, the number of distinct transits with at least two AIS signals and at least one AIS signal above 10 knots was divided by the total number of distinct vessels with at least two AIS signals recorded during an active slowdown period.

1. NOAA Fisheries. "North Atlantic right whale." <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale>
2. Durette-Morin D, Evers C, Johnson HD, Kowarski K, Delarue J, Moors-Murphy H, Maxner E, Lawson JW and Davies KTA (2022). "The distribution of North Atlantic right whales in Canadian waters from 2015-2017 revealed by passive acoustic monitoring." *Front. Mar. Sci.* 9:976044. <https://doi.org/10.3389/fmars.2022.976044>
3. Ship Speed Watch uses vessel information from the Global Fishing Watch database. This information is transmitted from a vessel's AIS device, which is collected via satellites and terrestrial receivers. Faulty AIS devices, user error, intentional manipulation, crowded areas, poor satellite reception, and transmission flaws are factors that contribute to noise and errors in AIS data, and sometimes those inaccuracies can be reflected in the speed and location of a vessel. Vessel operators can accidentally or purposefully enter false information into their ship's AIS, thus concealing their identity or location. In crowded areas, such as ports, the massive number of radio transmissions can crowd the bandwidth of satellite and terrestrial receivers, leading to inaccuracies as well. For these reasons, Ship Speed Watch information must be relied upon solely at the user's own risk.
4. Global Fishing Watch, a provider of open data for use in this report, is an international nonprofit organization dedicated to advancing ocean governance through increased transparency of human activities at sea. The views and opinions expressed in this report are those of the authors, which are not connected with or sponsored, endorsed, or granted official status by Global Fishing Watch. By creating and publicly sharing map visualizations, data, and analysis tools, Global Fishing Watch aims to enable scientific research and transform the way our ocean is managed.
5. Fisheries and Oceans Canada. (2019). Review of North Atlantic Right Whale Occurrence and Risk of Entanglements in Fishing Gear and Vessel Strikes in Canadian Waters. Canadian Science Advisory Secretariat. <https://waves-vagues.dfo-mpo.gc.ca/Library/40815912.pdf>
6. Oceana (2020). Oceana Exposes Ships Ignoring Voluntary Speed Zone Designed to Protect Endangered Right Whales. Press Release. <https://usa.oceana.org/press-releases/oceana-exposes-ships-ignoring-voluntary-speed-zone-designed-protect-endangered-right/>
7. McKenna, M.F., Katz, S.L., Condit, C., and Walbridge, S. (2012). "Response of commercial ships to a voluntary speed reduction measure: Are voluntary strategies adequate for mitigating ship-strike risk?" *Coastal Management*. [https://www.researchgate.net/publication/262847651\\_Response\\_of\\_Commercial\\_Ships\\_to\\_a\\_Voluntary\\_Speed\\_Reduction\\_Measure\\_Are\\_Voluntary\\_Strategies\\_Adequate\\_for\\_Mitigating\\_Ship-Strike\\_Risk](https://www.researchgate.net/publication/262847651_Response_of_Commercial_Ships_to_a_Voluntary_Speed_Reduction_Measure_Are_Voluntary_Strategies_Adequate_for_Mitigating_Ship-Strike_Risk)

