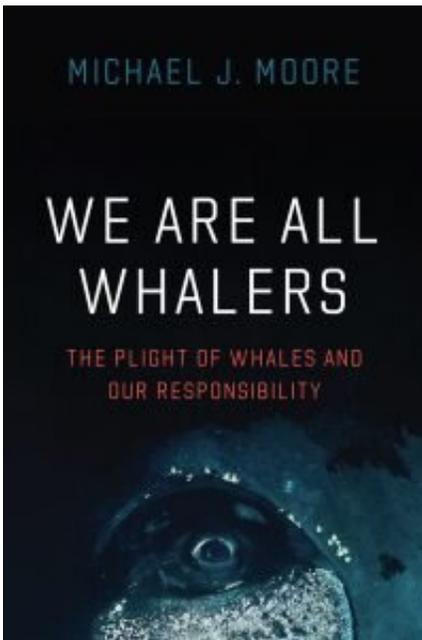


# New book by marine scientist offers a grim look at an endangered whale species

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"We are all Whalers: The Plight of Whales and our Responsibility," Michael J. Moore. Credit: Univ. of Chicago Press

A new book by Michael Moore, veterinarian, and marine scientist at Woods Hole Oceanographic Institution (WHOI), examines the plight and future of the North Atlantic right whale, one of the most critically endangered species on the planet, and draws on Moore's 40 years of fieldwork to offer possible solutions. "[We Are All Whalers: The Plight of Whales and our Responsibility](#)" is a reminder that we can all share in the salvation of these imperiled animals. The image most people have of

whalers includes harpoons and intentional trauma, yet eating commercially caught seafood leads to whales' entanglement and slow death in rope and nets, and the global shipping routes that bring us readily available goods often lead to death by collision. All of us are whalers, Moore contends, but we do not have to be.

Recently released North Atlantic right whale population numbers offer a grim update: there are approximately 336 animals left on the planet, down from approximately 356 just a year earlier. Deaths continue to outpace births and crucial efforts by the scientific community, fishing industry, and policy makers are needed to develop the most effective and viable solutions to ensure their long-term survival.

According to Moore, "Over the past millennium, the North Atlantic right whale has only just avoided extinction, first from deliberate hunting, and now inadvertently from fish harvesters and mariners. We have reached a critical tipping point: the right whale species cannot continue to withstand the mortality and morbidity it suffers from fishing-gear entanglement and vessel collision."

Moore's training as a veterinarian and experience as a whale trauma specialist provides a unique—and heartbreaking—front row seat to the injuries inflicted onto the whales when entanglement or ship strikes occur. "We must also consider what each individual is going through as it struggles with persistent rope entanglement," Moore shares. "It is a slow, painful death."

In addition to increased mortality, there is sub lethal trauma that these animals are facing as it relates to their ability to get pregnant and raise calves. If the entangling gear doesn't kill them, it inhibits them to some degree and affects their feeding capacity. Drag from rope and traps drains them of energy to the point where they're less able to get pregnant, which is critical to help the species recover. There are

currently less than 100 breeding females remaining.

Climate change-driven ocean instability has also contributed to the problem. Warming waters are changing where and when right whales are found in their search for zooplankton. These changing environmental conditions are essentially invalidating existing planning and protections of vessel strike and entanglement hot spots, as [management changes](#) have not been able to keep up with the whales' new routines. According to Moore, "We need a broader, more generic approach to minimize the risk of trauma to whales and such an approach will succeed only if there is a broad-based consumer demand for commodities and seafood that are transported and procured in a manner that allows whales such as the North Atlantic right whale to swim free and prosper."

WHOI researchers among others from the U.S and Canada are collaborating on reliable and affordable technologies including Ropeless fishing technology —the ability to retrieve gear without a persistent line from the surface to the bottom —as a possible solution that could be both safe for the North Atlantic right whale and viable for the Atlantic fishing industry. Passive acoustic technologies can detect whales underwater in near real-time, transmitting data via satellite which is then reviewed by an analyst and posted on a publicly accessible website. Right whale speed rules are also in place along the east coast migratory routes from the Southeast through the mid-Atlantic and up into New England including Cape Cod Bay.

Moira Brown, a senior scientist at Canadian Whale Institute says Moore's book is "a truly compelling, captivating, and in places heart-wrenching story of one scientist's journey caring for a highly [endangered species](#). The very predicament of North Atlantic right whales is our fault, and their recovery is also our responsibility, as we are all consumers and hence all culpable in the environmental costs of fish products and goods and services transported at sea. Coexistence with whales is possible, and

Moore's book lays the foundation."

"To solve the problem, we need to have the understanding, commitment, and optimism to carry through with what must be done—by fundamentally changing fishing and shipping practices, but in ways that are sensitive to the lives of the humans that work in vessels at sea and harvest seafood. Both industries have already borne substantial costs in the name of right whale conservation, with inadequate results. The challenge is to find solutions that are sustainable, both for [whales](#) and for humans dependent on these marine industries," added Moore.

We Are All Whalers leaves readers with this weighty thought: "What if we lose the North Atlantic [right whale](#) species? It would be another nail in the coffin of the human species. If we continue to destroy biodiversity, what kind of a world will be left for us to survive in? It is an ethical, moral, and practical necessity that humans stop destroying and overexploiting the diverse resources of the globe. If we do not, we will lose a species that is an icon, just like the lobster, snow crab, and cod. Their loss would doubtless have unintended consequences of which we are unaware. It's up to all of us to decide if we care about sustaining a diverse and healthy planet."

Provided by Woods Hole Oceanographic Institution

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