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Let's Change the Way We Approach the Problem

by Tora Johnson

When I attended the Maine Fishermen's Forum in March of 2023, everyone involved in Maine's fishing industry was abuzz with news about proposed new regulations aimed at protecting critically endangered North Atlantic right whales (*Eubalaena glacialis*) and other large whales from deadly entanglements in fishing gear. The National Marine Fisheries Service had recently wrapped up a series of presentations and hearings about the proposed regulations in which Maine's fishing industry and lawmakers blasted the agency over the planned rules, saying they would needlessly destroy the industry based on little evidence that whales are harmed by Maine lobster gear. Then in December of 2022, Maine's Congressional delegation had succeeded in adding an amendment to a $1.7 trillion federal spending package to impose a six-year moratorium on new regulations. Various lawsuits from both sides of the issue were wending their way through the courts.

The battle over whale entanglement was heating up again, and friends and colleagues who remembered my research on the issue began to reach out. Two colleagues at the Fishermen's Forum in separate conversations said, "You should write another book about whale entanglement."

"Why?" I responded each time. "Nothing has really changed since my book came out in 2005. People should just read the book I've already written." That was a flip answer but also true, in many ways.

The lobster industry and other trap, pot, and gillnet fisheries have been roiled by conflict over whale entanglement for decades. Regulations implemented over the years have failed to sufficiently reduce whale mortality and allow the population to grow. My book *Entanglements: The Intertwined Fates of Whales and Fishermen* (2005), based on four years of intensive research, examined the complex and fraught debate between whale advocates and fishermen over regulations to prevent whale deaths due to entanglements. At the time, the battle was unfolding as North Atlantic communities were still reeling from the collapse of the groundfisheries that had sustained them for hundreds of years. Trust was hard to come by as members of the federal Atlantic Large Whale Take Reduction Team met and attempted to generate innovative solutions.

In interviews, representatives from each side—fishermen and whale advocates—told me that their opponents were inherently evil, greedy, and unduly powerful. Many held mistaken beliefs about fisheries, whales, or entanglements. Of course, the truth lay somewhere between the extreme views each side had of the other. Social scientists have dubbed this kind of rancorous, polarized discourse "devil shift" (Sabatier et al. 1987). It's well known that once devil shift sets in, it is notoriously difficult to find common ground and innovate solutions to complex problems.

Between the opposing sides were the brave souls who went to sea to wrestle fishing gear off entangled whales. It made for stirring narrative, but only a small percentage of entangled whales are ever discovered and disentangled. And every entangled whale represented a failure to prevent them from becoming entangled in the first place.

The inevitable conclusions of my book were rather grim. The Take Reduction Team process was ineffective and rife with unproductive conflict in spite of efforts by a handful of leaders to bring people together around solutions. Whales were continuing to become entangled, even as climate change presented looming threats to both whales and fisheries. The Fisheries Service, an agency under the National Oceanic and Atmospheric Administration, was besieged by lawsuits and plagued by distrust. My research revealed many reasons why the process failed.

I consider myself an environmentalist, and I am fascinated by whales. I also come from a New England fishing family. So, the apparent intractability of the entanglement issue was extremely discouraging and seemed to bode ill for our ability to face new challenges. None of these realities has changed much since I published the book, so renewed conflict was inevitable. However, I have since made it my life's work to learn how and why such conflicts arise and persist, and how embattled groups can find a way to work together to solve complex problems with no ready solutions at hand. I am more hopeful now that a way forward can emerge, but time is running out.

Fewer than 350 North Atlantic right whales remain, and scientists believe the species is near the brink of extinction (Kraus et al. 2016). So, the stakes are high for both whales and fishing communities as the issue heats up again. The closer right whales get to extinction, the greater the pressure on the lobster industry, from both regulatory and marketing perspectives. There is a real chance that in a few decades both will be gone unless we can find a way to decrease entanglements and focus on the other challenges to whales and fisheries.

Misinformation is feeding the conflict and preventing opposing sides from finding common ground. Many advocates for the fishing industry, including industry leaders, have argued that right whales do not frequent the Gulf of Maine (Claffey 2023). In reality, they do. I have observed right whales myself in the Gulf of Maine many times and quite predictably, and it is well documented to be a crucial part of their range.[1] Of course, there are important nuances to reality. Right whale sightings very close to Maine's shoreline are exceedingly rare except for just a few areas (Bever 2021), for example, but proposed regulatory frameworks do not take this fully into account with potentially dire consequences for nearshore harvesters.

Fisheries advocates and some lawmakers have also claimed that right whales do not get entangled in Maine fishing gear (Office of Governor Janet T. Mills 2022; Miller 2022), which is virtually impossible given that right whales crisscross the Gulf of Maine constantly and run a gauntlet of vertical ropes as they swim. More than 80 percent of right whales bear scars from entanglement, and nearly 60 percent have been entangled more than once (Knowlton et al. 2012). Scarring rates for other large whales like humpbacks are similar. There is no reason to believe that literally all of the scarring is due to encounters with gear elsewhere, given how frequently right whales travel around the Gulf. It is true that there has been no confirmed case of a right whale death due to entanglement in Maine lobster gear, and that right whales seem to be spending somewhat less of their time in certain areas of the Gulf of Maine due to climate change (Record et al. 2019). However, the absence of a smoking gun is more easily explained because, in the past, fisheries advocates have successfully fought requirements to mark their gear. So, it has been virtually impossible to tell where an individual whale has been entangled, even when we do find rope on a whale. The proposed new regulations would require gear marking.

For their part, whale advocates have suggested that new ropeless gear is a panacea for preventing whales from colliding with vertical lines (Morris 2023). The proposed rules would allow ropeless gear to be used in certain closed areas and as an alternative to avoid other restrictions. Fishermen are exaggerating, whale advocates suggest, when they suggest the new gear rules will put them out of business, just as they exaggerated the potential impact of prior measures requiring sinking rope and weak links. However, the proposed reliance on ropeless gear and significant changes to allowable gear configurations represent far more major changes to fishing practices than prior regulatory frameworks, especially for small, nearshore harvesters. Ropeless gear is extremely expensive, largely untested, and presents a wide array of logistical problems. One crucial issue is that ropeless gear is invisible from the surface. When a harvester can't mark both ends of a string of traps, other fishermen may set their strings across it. Such gear conflict may be time consuming, difficult, or impossible to avoid.

Lobster fishermen I have spoken with say they are willing to try new gear types and configurations and to devise ways to make them workable. However, they need time and money to do so. Without more time, opportunities to experiment with new gear, and financial help, several have told me they will simply have to go out of business if the proposed regulations are implemented. A widespread exodus of small-scale fishing operations would have devastating and lasting economic and cultural consequences for Maine's small coastal communities.

In my book, I described instances where the Fisheries Service took partially formed ideas generated during Take Reduction Team meetings and rushed them into unworkable and unenforceable regulations. An example is outlined in the chapter entitled "The Damn DAMs" on dynamic area management rules. Such actions made real solutions even less likely to emerge because they eroded trust and buy-in while providing little real protection for whales. I believe the current proposed regulations represent a similar rush that could have similarly harmful consequences but with far greater impacts on fishing economies and communities. With the six-year Congressional moratorium on new regulations and a June 2023 decision by the US Court of Appeals in Washington, DC, requiring NOAA to vacate the biological opinion underpinning the proposed regulations (Me. Lobstermen's Ass'n v. Nat'l Marine Fisheries Serv., No. 22-5238 [D.C. Cir. Jun. 16, 2023]), we now have the time lobster harvesters have been asking for.

Now, the question is what to do with that time.

Insights from my own research and other sources offer hope for saving both whales and fisheries if we embrace a new way of addressing the conflict and act

before the right whale or the lobster industry or both go the way of the dodo.

It is critical to counteract the long-standing devil shift in the entanglement debate to allow real collaboration and innovation to flourish and interrupt the cycle of rushed, unworkable regulation followed by spates of litigation and dead whales. To achieve this, federal regulators, lawmakers, scientists, and advocates on all sides must embrace new approaches that incorporate best practices for collaborative problem-solving.

The issue needs boundary spanners to step forward, and they need to be recognized and supported in their work. Boundary spanners are people who are broadly regarded as honest brokers and can span the gulf between opposing sides, help to stem rancor, dispel misinformation, and move the process forward. Expert boundary spanners can be enormously effective in facilitating outcomes that are viewed by all sides as credible and legitimate (Cash et al. 2003), particularly for complex problems where straightforward solutions are impossible (Johnson 2015; Bednarek et al. 2016). In my earlier research on the issue, I observed that a few people had emerged as trusted liaisons. They were unusually clear-eyed, connected, and persuasive, possessing social and political capital they could use to broker compromise or quell conflict. These boundary spanners were instrumental in helping the Take Reduction Team process to some degree, but they were not sufficiently empowered or engaged by federal regulators or the meeting facilitators. So, their impact was limited, and their activities were largely informal and behind the scenes. Regulators and lawmakers should seek out boundary spanners among participants, listen to their advice, follow their lead in how to effectively engage stakeholders, and provide resources to allow them to perform their vital function.

As the Fisheries Service revisits the biological opinion and revises the proposed regulations, they should incorporate considerations of geography and scale that are lacking in the current proposal. The lobster fishery is geographically diverse and includes a wide variety of fishing operations. Some fishermen operate with a few traps from small boats in shallow waters where whales virtually never go. Others operate large boats offshore with hundreds of heavy traps. The bottom in southern New England is smooth, while the bottom Downeast is littered with rocks and ledges. Whales and fishing gear behave differently from one place to another, and fishing operations vary accordingly. The proposed regulations, as currently outlined, would be particularly harmful to small, low-capacity, inshore operations that make up the majority of the fleet in areas where the risk to whales is exceedingly low. While creating exceptions for inshore areas where whales seldom go would add to the complexity of the regulations, it would do a great deal to reduce the impact on, and opposition from, many harvesters and their fisheries-dependent communities.

A peer review of the multiparameter decision support tool used by the Fisheries Service to devise the proposed regulations identified points of uncertainty or lack of precision in the input data used for whale and gear distributions (Merrick et al. 2023). It also recognized increasing change and uncertainty as whales, lobsters, and fishing effort change over time, primarily in response to climate change. The delay enforced by Congress and the courts affords an opportunity to improve data collection in collaboration with harvesters to make the model outputs more precise and adaptable. Also, it may be an opportunity to use the tool to explore the risk-reduction opportunities in different regulatory scenarios that minimize impacts on small-scale, inshore fishing operations.

Wherever changes in fishing practices must occur to protect whales, the fishing industry as a whole will need time, technical assistance, and financial support to facilitate the transition. Several government agencies and nonprofit organizations are building partnerships and seeking funding to create gear libraries to allow lobster fishermen to borrow and test alternative gear and compensate them for their participation in research on how to transition to new gear types and configurations. Engaging harvesters in the process of creating solutions not only ensures more workable solutions will emerge, it has the added benefit of building buy-in (Pahl-Wostl 2009). Gear suppliers, financial institutions, seafood buyers, and harbormasters must also be involved in planning for transition and supported in implementation.

One of the most striking things I observed in my prior research of the Take Reduction Team process was facilitators consistently refusing to allow discussion of past failures in fisheries management whenever fishermen raised the issue. The facilitators insisted that past issues were irrelevant to the current process, and there was no time to discuss them. Facilitators failed to recognize that, to the fishermen, the past failures were entirely relevant, especially as many were still reeling from the trauma and disruption induced by the groundfish crash. Fishermen commonly referred to it during our interviews as evidence that they should not trust the process. By refusing to engage with fishermen, facilitators were inadvertently confirming their suspicions that they could not trust the regulators or the process. In future, it is crucial that

regulators support the dignity of all participants and acknowledge past failures of the agency and their relevance to current issues (Hicks 2011). These past failures include the failure to reduce whale mortality in spite of more than two decades of effort and sacrifices made by the industry. It is worth taking the time to address the problem effectively, using good stakeholder engagement, to avoid returning to the problem repeatedly in the future.

Finally, it is imperative that we all accept the fact that there can be no ideal solution to the problem of whale entanglement. Regardless of how the regulations play out, some whales will still be killed by entanglement, and some fishermen will be harmed and may leave the fishery. The relevant federal legislation, Endangered Species Act and Marine Mammal Protection Act, and the resulting regulatory frameworks are imperfect. They are interpreted and administered differently depending on the presidential administration and federal agencies that implement them. Regulations that emerge are often thwarted by real-world considerations, and in the age of climate change, conservation goals are a moving target.

There is no such thing as winning in this scenario. As long as people come to the table with winning as their goal, we will all keep losing and returning to this point of conflict again and again. Our shared goal is to find solutions that reduce whale mortality and allow the population to grow while fisheries continue to harvest seafood for local economies. We must begin to listen to each other with dignity and openness to new ideas and incorporate the knowledge and passion of everyone involved to address this difficult problem.

NOTES

1 https://www.fisheries.noaa.gov/species/north-atlantic-right-whale

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