8-1-2012

Reconciling Whales and Lobstermen

Margaret (Peg) A. Van_Patten Ms.
University of Connecticut, peg.vanpatten@uconn.edu

In February 2011, NOAA scientists managed to sedate and disentangle this young North Atlantic right whale found off Florida caught in fishing line and wire mesh. It was only the second time that sedation had been used for detanglement rescue. With only 300-400 remaining in existence, North Atlantic right whales are among the most endangered whales in the world. They are protected under the U.S. Endangered Species Act of 1973 and the Marine Mammal Protection Act of 1972. Vessel strikes and entanglement in fixed fishing gear are the two greatest threats to their recovery.

EcoHealth Alliance/NOAA News

Reconciling Whales and Lobstermen

by Peg Van Patten

At certain times when whales in the waters off New England congregate in areas densely packed with ships and fishing gear, whales suffer the consequences. Especially at risk is the northern right whale, *Eubalaena glacialis*, which is critically endangered and close to extinction. These right whales are slow-moving baleen (plankton-feeding) whales. Historically, beginning in the 11th century and up to 1935, they were heavily hunted for oil and baleen; baleen was used to fortify ladies' corsets and other products. There are now believed to be less than 500 individual northern right whales left.

The New England Aquarium keeps a catalog of individual right whales with identifying characteristics and family relationships. They have been very involved in right whale research and conservation, and even have an Adopt a Right Whale program. (Editor's note: see http://www.neaq.org.)

New England Aquarium

Entanglement can kill or injure right whales like this one, photographed in North Atlantic waters.

Much of the whale injuries and mortalities in recent times have been related to ship strikes, which have been addressed by slightly moving shipping lanes away from whale migration routes, and limiting vessel speed. It's now illegal to approach a right whale within 500 feet. There is also a phone app to help ships avoid them. Of course, habitat loss and ocean pollution add to the whales' plight.

Other human practices can be addressed. About half of the human-caused right whale mortality now is from entanglement with fishing gear, scientists believe. It's hard to tell exactly, because a dead whale may not be easily visible. The gear is generally gillnets and lobster pot lines.

Woods Hole Oceanographic Institution

Hauke Kite-Powell, research scientist at the Woods Hole Oceanographic Instituiton

The pursuit of America's favorite crustacean is a practice that appreciative New England diners tend to enthusiastically support. So far, Maine lobstermen generally fish trawls with up to five traps on a single surface buoy. When the trawls are longer than five traps, they put a surface buoy on each end to guard against gear loss in case something breaks. To prevent whale entanglement, regulations specify use of sinking ropes rather than floating ones. This rule doesn't apply in the first three miles off shore since whales do not tend to congregate close to land. Most fishermen dislike the rule because the sunken lines can wear out when they chafe against rocks or get snagged on rocks and debris, resulting in damage and gear loss. Meanwhile, regulatory agencies have found that the current management rules are not helping enough to preserve right whales so they are gearing up to regulate fisheries more stringently.

Hauke Kite-Powell, research specialist at the Woods Hole Oceanographic Institution's Marine Policy Center, became involved in the dilemma when he was contacted by the Maine Lobstermen's Association. Knowing of his earlier work with shipping lanes and whales, they wanted to work with him as well as the New England Aquarium to address the problem. The idea is to gather information on both right whale movements and lobster fishing, to build a reasonably accurate model for where and when risk to the whales from lobster gear is highest. Once that is known, place-and time-specific recommendations can be made that might be most effective and possibly also less burdensome to fishermen. In order to do that, it was essential to know where the whales are likely to be at a particular time and season and, simultaneously, where the lobstermen are fishing

Maine Sea Grant

Plenty of lobster gear can be found in the waters of Stonington, Maine. Right whales can become entangled if they get too close.

New England Aquarium

Lobstermen came forward to learn more about efforts to avoid right whale entanglement and to provide information that will help find a solution to the problem.

and what gear they are deploying.

They put together a proposal and now a Sea Grant project sponsored by the Northeast Sea Grant Consortium, which comprises the Sea Grant programs from Maine to New York, is helping them to look at solutions for this problem, focusing on conflicts between the right whale and Maine lobstermen. New England Aquarium and the Maine Lobstermen's Association are key partners in the effort.

To help, lobstermen came forward with information about their fishing habits, drawing the places they frequented on charts. Without their willingness to provide information that they normally would rather not share, the project would not have been possible, said Kite-Powell.

"We have a pretty good handle on where the right whales are and when, beyond ten miles off the coast," said Kite Powell, who leads the project. Spring and summer are the peak times that they gather in large numbers. New England Aquarium staff have been combining systematic offshore whale survey data with satellite tag surveys and sporadic inshore sighting reports. The combined information gives a more complete picture of how often and when the whales are present both inshore and offshore.

What's unique about this Sea Grant project is the collaboration. "The biggest challenge for this project is reaching out to thousands of people involved in a fishery who really don't want to tell what they're doing," said Kite-Powell. They are cooperating, he said, in hopes that there will be a sound scientific basis for future regulations that they can support because they will have had input to the process.

"It's unlikely that a solution would happen at all without the help of the Maine Lobstermen's Association," Kite-Powell adds. "I believe that if we approach the problem carefully and design management measures to target the risk where it exists, it will be possible to protect whales AND allow lobstermen to pursue their livelihood without being overburdened," he said.

Kite-Powell hopes that the NOAA National Marine Fisheries Service, under constant strong pressure from environmental groups, won't forge ahead and institute management regulations using an existing broader-based model for the Northeast before his model can be completed. While the earlier model covers a larger geographic area, it lacks the specific detail that the new project can provide. The next challenge will be talks between the project partners, environmental groups, and regulators, he says. The talks will attempt to get appropriate whale risk reduction measures adopted using recommendations generated from the new targeted model.

"Ultimately we want to keep whales from getting tangled in fishing gear," he said, "so we just do everything we can to put the best science forward and then explain it to everybody. Protective measures for the right whales will be put in place sooner or later, but for the sake of the whales I hope it's sooner."

About the author:

Peg Van Patten is Communications Director for Connecticut Sea Grant at the University of Connecticut. She enjoyed lunch with Hauke at Captain Kidd's while working on this story.