New Brunswick

Ropeless traps not easy for crabbers testing them in whale-protection effort

Fishermen face difficulty getting ropeless traps to work for them, but it's not the end of the line

Hadeel Ibrahim · CBC News · Posted: Aug 27, 2019 5:30 AM AT | Last Updated: August 27, 2019



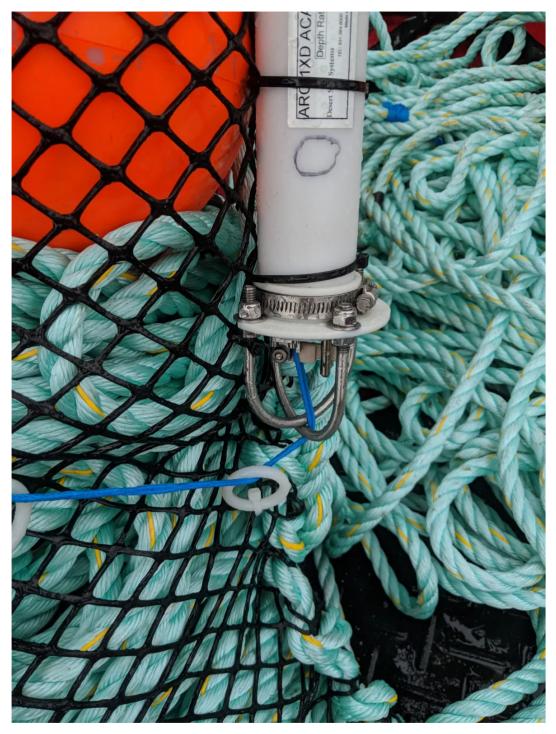
Fishermen in Caraquet test traps that have bags attached to them. The bag holds the rope needed to pull the trap up. An acoustic release device triggers the rope when the fishermen are ready to pull the trap from the ocean floor. (Marco Flagg/Submitted)



After one round of testing, ropeless trap technology did not make the splash in the crab fishery that some were expecting.

New Brunswick snow crab fishermen have been testing a ropeless trap system to reduce the use of fishing rope, which has been blamed in some of the deaths of endangered North Atlantic right whales.

"The main problem with the ropeless gear ... is that it was given way too much credit for what it can, at this time, achieve for the snow crab fishery," Robert Haché, director general of the Acadian Crabbers Association, said in an interview. Entanglements in fishing rope, along with collisions with ships, were found responsible for some of the 12 deaths of North Atlantic right whales in the Gulf of St. Lawrence in 2017.



A closer look at the acoustic release device that can be triggered several kilometres under water. (Marco Flagg/Submitted)

There have been eight recorded deaths of right whales this year but none conclusively linked to fishing gear. Four entangled whales, however, were spotted off Miscou Island in northeastern New Brunswick during the summer. Fisheries and Oceans Canada has tightened measures to protect right whales, including closing some zones to fishing. The value of snow crab earnings in 2017 is estimated at \$209 million and landings of lobster at \$286 million.

• DEEP TROUBLE 101 lost snow crab traps, 9 km of rope removed from gulf to protect right whales

• P.E.I. fishermen feel unjustified blame in right whale deaths, says PEIFA

Haché said crab fishermen want to be part of the solution to the dangers for whales, so last year, they started testing various methods of fishing that attempt to reduce entanglements. The federal government allotted \$2 million to the projects.

But Haché said the ropeless trap system they've tested had a lot of practical issues — and it would take years of work to adapt it to fishermen's needs.

"Basically, the testing of the ropeless trap showed us that the contraption was far from being adequate to be used on a commercial basis now. We're looking at some contraptions that will need a lot more work."

The ropeless traps, developed by California-based Desert Star System, are already used by fishermen in New Zealand and Australia.

The practical challenges

The Desert Star system holds furled fishing rope in a bag attached to the trap itself, which is left on the ocean floor to collect crab. This means the rope is not floating in the water column in the way of any whales.

When fishermen are ready to pull up the trap, they send a signal and a release system lets go of the rope, which floats to the surface where it can be located and pulled up by the fishermen.

Haché said the bag that holds the rope was "totally inadequate," because it was difficult to furl the rope back into it once it was unfurled. It also snagged in the machine that winds the rope.





Fishermen testing examine the bag that holds the rope. (Marco Flagg/Submitted)

Fishermen also found the process of re-arming the release mechanism too delicate.

"It's a very, very small wire that it's almost like putting a small cord in a needle," he said. "So it was basically unworkable for fishers at sea with big gloves in cold situation."

"We're really far from any definite conclusion concerning ropeless."





The ropeless traps were tested at sea as well as in the controlled environment of this pool. (Marco Flagg/Submitted)

Marco Flagg, founder and CEO of Desert Star Systems, called the two weeks he spent testing the traps "taking off the training wheels."

He said he spent time on different boats where four or five fishermen did the testing, but he tried to just observe.

Fishermen are not used to ropeless fishing, he said, so there was a learning curve.

Flagg also said fishermen had a problem with the extra waiting time — filling the bags with rope and waiting for the rope to be released and float up from the bottom of the ocean. Even if the release takes a minute, he said, that adds up when a fisherman is picking up 200 traps.

"You would be out of, you know, almost four hours adding to your work workday," he said.

He said that's why the company created a "broadcast mode," which triggers the release of multiple ropes at the same time.

- Snow crab industry gets \$2M to find ways to reduce right whale entanglements
- Some go home with more money in their pockets, some less, as fishing season ends

The same kind of adaptation can be applied to the other challenges, he said. For example, a local engineering company is working on better rope bags that snag less, he said.

As for the "finicky" arming mechanism, "we are working on sort of a [automatic] arming mechanism that makes sense, faster than it was," Flagg said.

"To make that transition from a traditional fishery is probably the biggest hurdle, more of a mental hurdle, you just have to see how it works."

Other techniques

Haché said fishermen aren't totally discounting ropeless fishing. For example, he said, it's possible they could eventually use ropeless traps in areas closed to fishing and use traditional traps in areas where it's considered safe for whales to do so.

But either way, the association is turning its attention to other methods that could reduce the risk of entanglement such as lighter traps and weaker ropes with breaking points.

"It cannot be more urgent," he said. "Nobody is dragging their feet here concerning this issue."

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