



MAINE

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To: TRT Ropeless Fishing Subgroup

Fr: Kristan Porter, President, MLA

Re: Observations and insight on ropeless fishing in eastern Australia lobster fishery

March 14, 2018

In 2013, I had the opportunity to travel to New South Wales in eastern Australia and spend a day fishing on a lobster boat to experience first-hand the Desert Star acoustic-release system. This is a submerged buoy system technology used by some in that fishery. I traveled with (and was funded by) the Bycatch Consortium to provide feedback on how this technology might be applied to the Maine lobster fishery.

About the fishery

Understanding the management and operations of the Australian fishery is essential to understanding why this technology is appropriate and has been successfully implemented by some in the New South Wales lobster fishery. It is an ITQ fishery, with less than 40 fishermen who are awarded quota based on their trap allocations. There has been a lot of consolidation in recent years with lobstermen buying up other's trap allocations and reducing the number of fishermen. A "large" fishing operation in this fishery has an allocation of 300 traps. It is high value fishery for each operator with lobsters valued between \$25 to \$30 or more per pound. While this fishery generates high gross revenues, there is also a high cost of entry of approximately \$40,000 annually to purchase trap and quota allocation.

The gear is typically hauled once every 3 to 4 weeks as single traps. Because the gear is not tended regularly, poaching is a major issue in this fishery. In response, the fishery evolved into a sunken surface system fishery, typically using timed galvanic releases to float the surface system. This fishery must contend with the strong Eastern Australian Current (EAC). If a surface system pops up into this current, the gear will run under water, can be dragged long distances and cannot be hauled until the current subsides. Galvanic releases can be unpredictable so lobstermen have found that they have not solved all of the poaching issues and can often lead to lost gear or the inability to haul gear if the EAC is running.

My experience on a lobster boat

I spent one day fishing with lobsterman Scott Wesley. He is considered one of the larger, more successful lobstering operations in this fishery. He has bought out much of his competition which has increased his trap allocation to 300. This has resulted in him removing his nearest fishing competitors and giving him miles of bottom to fish without competition.

Scott voluntarily implemented the Desert Star acoustic release system to replace many (but not all) of his galvanic releases. He typically fishes on 30 day sets and value of the catch in each of his pots is very high. His motivation in investing well over \$100,000 to adopt this system was to avoid his huge loss of revenue due to poaching of his catch.

On the day we fished, Scott hauled 14 single traps and did not reset most of the gear because he had already caught most of his quota. Scott and his crew were very skilled at fishing the system, particularly in matching each pot to the computer so that it was properly recorded and could be relocated, and the setting of the burn wire in the acoustic release system. He used a torque wrench to perfectly set the bolts on either side of the burn wire to hold it in place; if it was too tight, the wire would break, too loose and the wire would fall out. Either would result in a failure of the acoustic release. This was a highly precise process. Setting the burn wire properly would be difficult to do if handling a high volume of gear or on a day with rough seas.

While fishing with Scott, I met another lobsterman who had also implemented this system on a portion of his gear. He found that it did not work for him as he was often unable to retrieve his gear. He found it difficult to narrow down the cause of the failure and ultimately gave up on the acoustic system.

In 2016, I was able to host Scott aboard my vessel in Cutler. He was quick to observe that we do not have the luxury of fishing miles and miles of bottom without competition. He thought the Desert Star system would prove much more difficult to implement in our fishery because lobstermen fish together so tight.

In 2016, I met a Western Australian lobsterman named Basil while attending a conference there. Basil tested a different version of the Desert Star acoustic release system in his lobster fishery. Unlike the system fished by Scott in eastern Australia which requires the lobsterman to code each acoustic device to a specific location in the boat's computer using a separate release frequency for each pot, the system Basil tested used one frequency to release all of the pots. He reported that they would pop up as boat came in range, but sometimes resulted in newly reset gear also popping to the surface. He ultimately rejected the system because it was too slow to haul his usual 150 pots per day, and was also extremely challenging to deploy and haul back because gear is set tight amongst lobstermen in his area.

My conclusions

I learned a lot about the New South Wales lobster fishery, and how acoustic and galvanic release technologies have been implemented to successfully fish sunken surface systems. I believe sunken surface systems have been successful for some in this fishery because there are so few lobstermen who have access to miles of bottom without competition, and it is a high revenue fishery that is incentivized to invest in this technology to avoid major financial losses due to poaching.

The Maine lobster fishery is very different because lobstermen fish much more tightly together, with many lobstermen sharing the same bottom. The Maine lobster fishery does not have the same poaching problem or generate the same revenue stream to make it economically feasible to adopt such a high-cost technology. But the operational hurdles of fishing sunken surface systems in the Maine lobster fishery are by far the most concerning to me. I have grave concerns about the loss of revenue which would be caused by the inability of lobstermen to haul through their gear on a daily basis, the level of gear conflict it would create amongst lobstermen and with other fishermen, the incentive to cheat to make up for lost revenue and inability of enforcement to catch offenders.