Community Project Outline

Mission:

- **-Learn** more about the marine entanglement issues that Krill, Scott, and their teams face
- **-Grow** our understanding of the global implications of these issues.
- **-Work** together to make a positive impact over the course of a 1 day field trip, through physical beach clean-up and the creation of solutions for Krill, Scott, and their team

Supporting Research:

"This stranding season, the fall/early winter of 2019, NECWA documented over 114 live and dead stranded ocean sunfish along the shores of Cape Cod and surrounding areas. This was the busiest stranding season ever! There were probably another 40 or 50 carcasses that we did not get to, so the number of stranded ocean sunfish is even higher." -Carol "Krill Carson"

Outdoor Seaside Clean Up 11 AM-12 PM

Led By: Carol "Krill" Carson

Marine Biologist and President, NECWA

Exact location: TBD

Problem Solving Hack-A-Thon Session 1 PM-5

PM

Location: Auditorium, Center for Coastal Studies 5 Holway Avenue, Provincetown MA 02657 USA

Host: Scott Landry,

Marine Animal Entanglement Response Expert

- **1 PM** Expert Presentations (Krill Carson, Scott Landry, Nancy's Sister Katie Houseman)
- **2 PM**-Alumni break up into smaller groups or teams and work to solve one of the problems presented
- -Experts provide background information and answer questions during the hackathon session
- **4 PM- 5 PM** Small teams come back together and share the solutions they formulated with the large group. Large group tries

to come up with an actual workable solution to one or more of the problems.

Problem #1

One hot topic or current issue that is impacting whales and other marine wildlife are the issues related to fishing gear, more specifically, issues related to vertical lines in the water. Once a whale, sea turtle, shark or seal gets entangled, it usually results in the animal's death quickly or over a longer period of time (since all fishing gear is made of some type of plastic).

So far, no one has been able to figure out a way of reducing the vertical lines in the water in a manner that would still allow the fishermen to fish. Some researchers are pushing for acoustic releases that could be used to trigger line that is rolled up next to the lobster gear or other fishing gear that is anchored on the ocean floor. When the fisherman wants to haul his or her gear, they use an acoustic sound to trigger the unit below which then releases the buoy line (which now floats to the surface). However, those units are currently very expensive and the idea really won't work offshore for a number of reasons. I can fill you in more by phone. Just too much to write down in an email as to why these units won't work for fishermen offshore.

Problem #2

Figure out possible solutions to the issue of entanglements/disentanglements. The Center for Coastal Studies in P'town is permitted by the Federal Government to disentangle any whale or other marine animal that is caught in gear. They only get to 1% of all entangled animals and they are not always successful in getting the animal out of the gear. But they are an amazing group and they are doing the best they can with the current technology available.

Problem# 3

Create gear that would help Krill, her team, and others more easily and successfully rescue live ocean sunfish that strand each fall and early winter along the shores of New England, primarily on the northern shores of Cape Cod. Last fall, they responded to over 60 live and dead ocean sunfish that washed ashore. The year before, they had a record number of fish strand, over 81.