

Massachusetts Division of Marine Fisheries

Letter of Authorization Request

Applicant: Pioneers for a Thoughtful Co Existence Inc, *Administrator*

Date: 12/15/2021

Request

Participants request a letter of authorization (LOA) from the Division of Marine Fisheries. The project includes five (5) commercial fishers to fish with and test the efficacy of “on demand access” fishing gear (also called “ropeless” fishing gear) in discreet areas within the state waters portion of the Massachusetts Bay Restricted Area (MBRA) between February 1st, 2022 and May 15, 2022 (further if extended). We are specifically seeking authorization to allow five (5) experienced commercial fishers to commercially fish lobsters using “on demand access” fishing gear (absent of static vertical lines) within two pre-defined areas within the state waters portion of the original and further extended “Massachusetts Bay Restricted Area”.

Applicants

Participant	State Permit #	Federal Permit #	Homeport	Vessel Name
Rob Martin	039670	221342	Sandwich	Resolve
Michael Lane	000126	242613	Cohasset	Phyllis P
John Haviland	000598		Green Harbor	Emily Rose
Tim Krusell	001501		Green Harbor	Divergence
Joseph Barrow	002659	251110	Cohasset	Joseph Ryan

Anticipated Fishing Practices and Gear

Each of the five (5) fishers will fish up to a maximum of ten (10) 20 pot trawls within pre-defined fishing areas in state and federal waters, absent of static vertical lines. All trawls will be outfitted with acoustic releases (one end only) and pop-up buoys manufactured by EdgeTech. A subset of each fishers pop-up buoys will additionally be outfitted with Blue Ocean Gear Smart Buoys to detect the potential for premature release of acoustic releases and provide further positioning data. An anticipated maximum total of 117 hauls of ropeless gear will be completed commencing February 1, 2022 and continuing throughout the extent of the closure. Two of the participating fishers are permitted exclusively in State waters and are highlighted below. The three remaining fishers are also permitted within Federal waters and will share the effort across boundaries determined by weather and other variables. Projected monthly fishing activity is as follows;

Participant	February	March	April	May	Total	Estimated State Effort
Rob Martin	4	4	6	6	20	50%
Michael Lane	5	7	15	6	33	75%
John Haviland	0	3	10	5	18	100%
Tim Krusell	0	3	8	5	16	100%
Joseph Barrow	5	5	12	8	30	50%
Total:	14	22	51	30	117	

Further, one fisher will additionally equip the other end of five (5) of his ten (10) authorized trawls with SMELTS (LR- 60 SMELT) inflatable pop-up systems. The trawls equipped with SMELTS LR-60 units will be hauled in an alternating fashion (“every other haul”) using the SMELTS system and the EdgeTech system for enhanced data collection.

Best Practices/Risk Management

With the exception of State and Federal vertical line requirements, all existing regulations will be adhered to. Additionally, many additional enhancements will be put in place within this project to accommodate this unique research effort. Those include;

- Ground line and on demand vertical lines will contain unique markings beyond the regional requirements. At a minimum, yellow/black strip marks as noted in regulation.
- A unique flag will be flown by each vessel for enforcement recognition.
- Weekly mandatory gear loss reporting.
- Stored vertical lines will be enhanced with the South Shore Sleeve every 40 feet to introduce a controlled break and accommodate current RBS requirements.
- Blue Ocean Gear; Smart Buoy Systems will be included to further illustrate the consistent track record of no intended releases of the stored vertical line. This technology introduces enhanced position tracking as well.
- Grappling is not intended to be used as an alternative fishing method but may be required as failures and or disruptions are experienced. Reasoning will be documented and explored to prevent re occurrence.
- The on demand vertical line will be supervised within the water column at all times.
- Visual whale sightings will be recorded on data sheets.
- Typical gear set anticipated to be no longer than 14 days (weather permitting and without unforeseen circumstances)
- Project vessels will operate within a 10 knot speed limit (specific to project work) as an extended pre caution.
- Any vessel finding itself within a 500 yard (1500 ft.) buffer zone created by a surfacing right whale must depart immediately at a safe and slow speed, in accordance with current regulations. Project work would immediately cease to accommodate regulation.
- Frequent surveillance both in federal and state waters offer opportunities for “triggers” collaborated through federal and state authorities effecting small areas and time using real time information. We look to State and Federal regulators for further guidance.
- Weekly communication and reporting to State and Federal personnel of current fishing activities within project work intended.
- Retrieval of gear limited to daylight hours.
- Trap Tracker application will be utilized for retrieval and set positioning details and available to Federal, State and corresponding enforcement personnel.
- Gear will not be set or retrieved with known right whales in close proximity.
- Project monitoring, data collection, analysis and reporting continues in collaboration with NEFSC and under NEFSC protocols.

Research Objective/Data Collection

This is a team of experts, with NEFSC by their side they have been the test pilots and driving the development of this gear since early 2017. There is no group of fishermen in the world who have more knowledge currently specific to ropeless systems. They have demonstrated that hybrid research trawls can be fished in coordination with their standard buoyed gear and have avoided gear conflict by sheltering/hiding the buoyless end. Phase Three begins the discovery of actually fishing within an Exempted Fishery Permit/Letter of Authorization, relying solely on acoustic releases, electronic gear marking and verbal/written planning for gear awareness.

Observation and Data Collection will include;

Wintertime Use: Previous trials were required to end by 1/31 in accordance with the closure of the MBRA. Discovery is needed within the closure months to be exposed to actual conditions presented during the closure to continue the development of gear enhancements and best practices.

Gear Location Awareness and Technology Advancements: The state of electronic gear marking is in rapid development. There are many new software and hardware developments to improve and build on this baseline and these experts offer the opportunity to test and fine tune these developments without the actual risk of gear conflict.

In “open area” trials participants must manage their standard fishing business alongside research trials. The pressures of competition create problems when two researchers set hybrid trawls in close proximity because the electronically marked ends are only visible for those looking electronically. Two research boats setting fully ropeless trawls and solely relying on electronic marking and verbal planning in an attempt to fish a structure or specific area gives a much better assessment of gear awareness without risk of gear conflict. This project will use the Edgetech Trap Tracker Application as a standard. This uses a button push to mark surface location of the tablet at begin set and end set creating a virtual trawl line. Trap tracker has a new feature that can create a subsurface location (where the unit actually landed). This is an opportunity to see how much extra effort that function requires, and if the added accuracy is even necessary. Active and interested mobile gear fishers will be invited to view trials electronically.

Operational Efficiency: Trials with hybrids trawls, fished alongside standard trawls, and operationally worked into a day of standard fishing offer limited efficiency data overall for the day. Dedicated trials relying on only buoyless on demand units to recover gear is necessary to access the efficiency of the Vertical line closure EFP/LOA effort.

Data Collection: Standard NEFSC Data Forms will be used as follows. When available, NEFSC data collectors will be provided to assist with recording. Project monitoring, data collection, analysis and reporting continues in collaboration with NEFSC and under NEFSC protocols.

Reporting: Project detail will be shared with State and Federal authorities in the frequency and format they desire.

Partners and Collaborators

Northeast Fisheries Science Center (NEFSC); Henry Milliken, Supervisory Research Fish Biologist Populations, Ecology, and Threats Team (PETT) NOAA/NMFS/NEFSC/PSB and Eric Matzen, Protected Species Branch, NEFSC.

- Gear Cache
- Data Collection and Analysis
- Project Management
- Collaborative Reporting

Edgetech

- Acoustic Equipment and or Accessories
- Operational and Design Consultation

SMELTS

- Acoustic Equipment and Accessories
- Operational and Design Consultation

International Fund For Animal Welfare (IFAW)

- Safety Equipment
- Acoustic Equipment (via gear cache) and Accessories

Woods Hole Oceanographic Institution; Mark Baumgartner, Senior Scientist and Michael Moore, Senior Scientist

- Historical Surveillance Data
- Ongoing Support
- Acoustic Equipment (via gear cache)

Pioneers for a Thoughtful Co Existence, Inc.

- Administrative Support