Snow Crab Zone 12 Pot/Trap

Fishery Improvement Project (FIP) Workplan

Table 1: Workplan Overview

Workplan Version and Date	**V.3 Reviewed September 2024**
Start date (expected)	**End date** (anticipated month/year)
January 2020	**July 2026**
FIP Lead (organization/individual responsible for Action Plan)	**Improvements recommended by** (meeting/group that supported the development)
MKM Global Katherine Morissette	**MSC Assessment & Report, ACCOL**
FIP Coordinator (organization/individual responsible for reporting on FisheryProgress)	**Workplan developed by** (consultant or person)
MKM Global Katherine Morissette	**Katherine Morissette & ACCOL** **FIP Consultant: Chrissie Sieben**

Acronyms

DFO	Department of Fisheries and Oceans Canada
ETP	Endangered, threatened, protected
GoSL	Gulf of St. Lawrence
SARA	Species at Risk Act

Unit of Assessment(s)

Table 2. Unit(s) of Assessment (UoA)

UoA 1	Description
Target species (common and scientific name)	Snow crab *(Chionoecetes opilio)*
Stock	Gulf of St. Lawrence, Canada
Geographical area	The Southern Gulf of St Lawrence in DFO crab management sub units 12, 12E, 12F,-19
Fishing method or gear type	Conical or rectangular crab pots (traps)
Fishing fleet or group of vessels, or individuals fishing operators pursuing stock	The southern Gulf snow crab fishery is comprised of First Nations, midshore fleets and inshore fleets from NB, NS, PEI and QC. There are 12 First Nations communities which receive regular access to Area 12 and 3 in Area 19 as part of the Marshall Response Initiative. In 2016, there were 425 allocation holders in the SGSL crab fishery. The largest, Area 12, had 249 followed by Area 19 with 156.

FIP Actions

Table 3. Performance Indicator Action Plan Table for Action 1.a-e

Action Number and Name (One sentence description)	1.a-e Eliminate lethal entanglements (and serious injuries) of ETP species
Action Goal (One sentence that describe the result of the action)	No lethal entanglements (or serious injuries) of ETP species
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	To work towards zero lethal entanglements of ETP species in fishing gear, these actions revolve around testing gear that does not use endlines or uses endlines of reduced breaking strength. The testing phase is needed before being able to transition to this safer gear at commercially significant levels.
Expected Completion Date	June 2025

Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	High
Estimated Cost (An estimate of the budget needed to complete the action)	1 600 000$
Responsible Parties (List of participants)	Engineering group, FIP participants, Harvesters, other researchers, NGO's
MSC PI(s) Addressed by the Action	2.3.1 ETP Species Outcomes

MSC Indicator	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
PI 2.3.1 ETP Species Outcomes Where national and/or international requirements set limits for ETP species, the **combined effects of the MSC UoAs** on the population /stock are known and **highly likely** to be within these limits. Direct effects of the UoA are **highly likely** to not **hinder recovery** of ETP species. Indirect effects have been considered for the	1.a Funding – identify and secure funding source(s) for FIP work plan activities	FIP Lead	DFO FIP participants NB Gov. Qc Gov. Buyers	January2020	December 2021	Funding
	1.b Compile information on different gear configurations, ropes and fishing conditions	Fishing associations Harvesters Engineering groups	Engineering groups NGO	April 2020	Every year until 2026	-Gear configurations for each sector in the FIP -Range of fishing conditions for each sector
	1.c Hold a virtual gear testing (ropeless and weak rope) training with Q&A session; and develop spec sheets and written overviews on gear for those who cannot attend	FIP Lead Engineering groups Fishing associations	Engineering groups	March 2020	Updated Every year, after results of season, until end of FIP in 2026	-Attendee lists for each session and dates -Spec sheets and written gear overviews

UoA and are thought to be **highly likely** to not create unacceptable impacts.	1.d Design testing protocols based on different gear configurations and fishing conditions	Fishing Association Harvesters Engineering groups	NGO's Researchers	June 2021	June 2026	-Testing protocols for different gear configs and fishing conditions
	1.e Video monitoring of gear trials (ropeless and weak rope)	Harvesters Engineering group Researchers	Data analyzers	June 2021	June 2026	-Monitoring reports -Tracked changes of any tweaks based on video

Table 4. Performance Indicator Action Plan Table for Action 2.a-e

Action Number and Name	2.a-e Work towards compliance with current and future management measures regarding ETP species management
Action Goal	Compliance with all current and future management measures regarding ETP Species Management
Action Description	The DFO is working in a stepwise approach to transitioning gear to weak rope and testing ropeless gear, as well as making sure unsafe gear is removed from the water and all untended, fixed fishing gear is identifiable to the fishery. Different sectors will require guidance on different aspects of these management measures, so these actions work towards ensuring all sectors are able and ready to comply with these management measures.
Expected Completion Date	December 2026
Priority	Medium
Estimated Cost	$400 000
Responsible Parties	DFO, harvesters, NGO, acoustic monitoring partner, researchers
MSC PI(s) Addressed by the Action	2.3.2 ETP Species Management

MSC Indicator	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
PI 2.3.2 ETP Species Management There is a **strategy** in place that is expected to ensure the UoA does not hinder the recovery of ETP species. There is an **objective basis for confidence** that the partial strategy/ strategy will work, based on **information** directly about the UoA and/or the species involved. There is some **evidence** that the measures/ strategy is being implemented successfully. There is a **regular** review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate.	2.a Remove all gear from the water during closures and at end of season	Harvesters, in some cases with DFO law enforcement on board	DFO	April 2021	Annually, post season, through completion of FIP, 2026	-Gear accounted for: retrieved or reported lost
	2.b Collect data on all sightings of ETP species, contact with gear and injury assessment	DFO	Researchers - Harvesters	April 2021	Annually, in season, through completion of FIP, 2026	-SARA logbooks -Sightings/detection logs
	2.c Trial gear (see Activity 1)	see Activity 1	see Activity 1	see Activity 1	see Activity 1	see Activity 1
	2.d Monitoring of Right whale migration patterns: Support survey effort expansion through tracking vessels and whales activities using emerging acoustic technologies and methods	Fishing Association leads	-NGO's -Partner acoustic researchers	April 2021	Annually, pre and post season as well as during the fishing season, through completion of FIP, 2026	-Data logs from hydrophones and/or other emerging acoustic technologies and method.
	2.e Provide input and increase regularly reviews via technical working group	FIP Lead Harvesters – one rep from each sector	DFO	April 2021	Through completion of FIP, 2026	-Attendance and participation at working group meetings
	2e. Increase area where measures are implemented according to national strategy	FIP Lead **Fishing association Harvesters DFO**	Researchers NGO's	2022	Through completion of FIP, 2026	Participation of all fishing association FIP's participants to trials

Table 5. Performance Indicator Action Plan Table for Action 3.a-b

Action Number and Name	3.a (same as 2.b), 3.b (same as 2.d) Collect information necessary to ensure reduced risk to ETP species
Action Goal	Robust information to show reduced risk to ETP species
Action Description	These activities focus on increasing information available on ETP species presence or absence in areas where data and effort is currently lacking and that overlap with where gear is set.
Expected Completion Date	2025
Priority	Medium
Estimated Cost	$512 000
Responsible Parties	Harvesters, acoustic monitoring partner, DFO, researchers
MSC PI(s) Addressed by the Action	2.3.3 ETP Species Information

MSC Indicator	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
PI 2.3.3 ETP Species Information Some quantitative information is **adequate to assess** the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species Information is adequate to measure trends and support a **strategy** to manage impacts on ETP species	3.a (same as 2.b) Collect data on all sightings of ETP species, contact with gear and improve injury assement	see Activity 2.b	see Activity 2.b	see Activity 2.b	see Activity 2.b	see Activity 2.b
	3.b (same as 2.d) Support survey effort expansion through tracking vessels and whales activities using emerging acoustic technologies and methods support their efforts	see Activity 2.d	see Activity 2.d	see Activity 2.d	see Activity 2.d	see Activity 2.d

Additional Impacts

FIP Product Traceability	**Some products coming from the FIP will have been caught using modified gear that is safer for ETP species. Because all of the snow crab goes to the same processors, these will not be differentiated in the marketplace. We aim to explore ways to keep the product separate and traceable, if possible.**
Status Summary	Exploratory
Improvement Recommendation	Create a label for these products if commercially viable