



FISHERMEN AND SCIENTISTS RESEARCH SOCIETY

LOBSTER RECRUITMENT INDEX PROJECT

APPLICATION PROCESS

To apply to participate in the Lobster Recruitment Index Project, complete the Lobster Recruitment Index Project Application Form and forward it by mail to:

**Fishermen and Scientists Research Society
P.O. Box 25125
Halifax, NS B3M 4H4**

or by fax to:

902-876-1320

**For further information, contact Patty King, Project Manager, at 902-876-1160,
pmdservices@eastlink.ca.**

FSRS LOBSTER RECRUITMENT INDEX PROJECT

INTRODUCTION

A primary research focus for the Fishermen and Scientists Research Society (FSRS) is the American lobster, an extremely important species to the Canadian East Coast fishery. Both fishermen and scientist members have expressed concern over the need for more science in support of lobster management. The FSRS has responded by initiating and participating in a number of research projects. A major focus of the FSRS lobster research program is lobster recruitment.

In the spring of 1999, the FSRS launched a **Lobster Recruitment Index Project**. During the regular commercial season, fishermen use a particular number of scientific lobster traps to gather information about undersize lobsters in their area. Volunteer fishermen count, sex and measure the size of lobsters from their science traps and record them in a logbook. They also indicate if lobsters are berried, tagged, and/or v-notched. Participants also monitor bottom temperatures by placing a computerized temperature recorder in one of their project traps for the entire lobster season.

OBJECTIVES

The project is designed to study changes in abundance of juvenile lobsters that will be recruited into the lobster fishery in the upcoming seasons and, as the project continues, allow an index of recruitment to be developed. Lobster fisheries in Atlantic Canada rely heavily on newly-recruited lobsters. Hence, we hope to be able to predict, with some degree of uncertainty, if there will be increases or declines for the commercial lobster fishery.

The project will collect information in Lobster Fishing Areas 27, 28, 29, 30, 31A, 31B, 32, 33, 34 and 35 required to develop a recruitment index. This will be done by collecting catch information on:

- number of males and females
- number of juvenile lobsters
- length of juvenile lobsters

PROJECT PROCEDURES

- Vessels will be required to complete the FSRS Lobster Record Book and to deploy a minilog temperature gauge.
- Vessels will fish traps designed in accordance with specifications set by the FSRS. The traps will be ordered from a single supplier by the FSRS to ensure all traps are identical. Traps will be provided by the FSRS.
- Standardized bait will be used when possible.
- The traps will be fished during the entire season. Traps are to be deployed consecutively in the same area throughout the season and are to be deployed in an area where there is a reasonable expectation of getting undersized lobsters. The purpose of this is to control

the variables in the study (ie: eliminate the impact moving the traps has on the results). Also availability of juveniles can vary throughout the season; by leaving the traps in one location for the entire season, we will be able to record the changes. The area in which traps are to be deployed will be decided on jointly by the vessel, the FSRS and the Scientific Advisor. Ideally, traps will be fished in the same spots in subsequent years.

- The length of juvenile lobsters will be recorded, using a specially designed ruler to measure the lobsters in 10 mm increments. The sex of the lobster and, for females, whether or not it is berried will also be recorded.
- Each project participant will receive a report on his catches in the project traps and temperature report from his minilog temperature gauge.

EFFORT CONTROLS

- Each vessel will fish two to five traps, depending on the LFA the vessel is in. Vessels must use traps which meet the specifications set forth in the Project Procedures.
- In LFAs 27, 28, 31B, and 32 the traps will be part of their legal limit and must display their commercial trap tag and the special scientific tag from DFO, to be identified by licence condition. They will have an amendment to their condition of licence permitting them to fish the project traps with the escape mechanism closed over. Sampling will be done as the traps are hauled. All undersized and berried lobsters will be released after they are counted and measured. Only legal lobsters can be kept. Vessels will be reimbursed \$130 per Recruitment Index project trap for a portion of the expenses incurred to participate in the project.
- In LFAs 29, 30, 31A, 33, 34 and 35 the traps will be in addition to their legal limit and must display the special scientific tag from DFO, to be identified by licence condition, which will identify the traps as part of this project. Sampling will be done as the traps are hauled. All lobsters will be released after they are counted and measured. Vessels will be reimbursed \$65 per Recruitment Index project trap for a portion of the expenses incurred to participate in the project.
- Captains and crew participating in the project will be required to take up to a 1/2 day of training. The training will be provided by FSRS personnel.
- Vessels must take a FSRS Fisheries Technician on any trips when asked to do so.
- Any vessels not adhering to the preceding will be dismissed from the project.

VESSEL SELECTION

The project is open to both members and non-members of the FSRS; applicants must have a valid lobster license for the area in which he will be fishing. Applicants must sign a waiver giving the FSRS permission to do a violations/sanctions check; anyone with violations/sanctions related to the lobster fishery will be excluded from the project.

Vessels will be selected by a Selection Board comprised of an independent chair, three members of the FSRS, and representatives from LFA Advisory Committees in the project area. Selection will be based on criteria to be finalized by the Selection Board, and will include, but not be limited to, history (area fished and area applying to fish in), violation/sanction check, geographic distribution, and LFA. The Board will review the performance of participants at the end of the

year; if their performance was acceptable and they met all the requirements of the project, they will be permitted to continue in the project the following year. This will allow for consistency in both fishing methods and data collection. If problems are noted with a participant, he will be removed from the project and a new vessel will be selected from the initial applicants. This process will be repeated each year.

PROJECT PERSONNEL

FSRS

Project Manager

Patty King is the Project Manager responsible for the development and implementation of the project.

Research Biologist, Assistant Data Analyst, and Fisheries Technicians

The Fisheries Technicians and Research Biologist deliver the training. The Fisheries Technicians collect the data sheets and download the minilogs. They will then forward the data to the Research Biologist. They will also accompany vessels as required to ensure adherence to project procedures and quality control of data. The Assistant Data Analyst and Fisheries Technicians are responsible for data entry into the FSRS database and generation of reports to project participants. The Research Biologist is responsible for the overall analysis of the data, production of a poster, production of reports and presentation of results.

DFO

Scientific Advisors

Doug Pezzack and John Tremblay from the Population Ecology Division of the Science Branch, DFO are the Scientific Advisors for the project.

**FSRS LOBSTER RECRUITMENT INDEX/COMMERICAL TRAP SAMPLING PROJECT
APPLICATION FOR PARTICIPATION**

**Return to FSRS, PO Box 25125, Halifax, NS B3M 4H4
or fax to 902-876-1320**

PLEASE PRINT CLEARLY

Captain's Name: (Full Name, No Initials)			Birth Date: (dd/mm/yy)	
Mailing Address:			Postal Code:	
Home Port:	E-mail:	Phone #:	Fax #:	
Circle the LFA you are applying for. 27 28 29 30 31A 31B 32 33 34 35 If in LFA 33 please indicate if you are applying for: ___ Lobster Recruitment Index Project ___ Commercial Trap Sampling Project ___ Both				
Describe the area(s) in which you would plan to fish during the Project. Be as specific as possible.				
Describe the area(s) in which you normally fish. Be as specific as possible.				
Names of Crew: _____				
Vessel Information				
Vessel Name:		C.F.V. Number:		Lobster License Number:
Life Raft: Yes No Specify type & capacity:		Other Safety Equipment: (Please specify type and number: eg. survival suits, etc.)		
Personal Suitability				
Provide details on the experience (for example how many years lobster fishing) and training, including experience/training in scientific data collection, of you and your crew which is relevant to this program and which you feel makes you a suitable applicant. (Attach an additional page if more space is needed.)				

