

December 2016

Opportunities for and challenges of occupational pluralism in seasonal fisheries: Regional cases from Atlantic Canada

Atlantic Canada Regional Report
Canadian Council of Professional Fish Harvesters (CCPFH) study
Fisheries Seasonality and the Allocation of Labour and Skills Labour Market
Information

Paul Foley, Barbara Neis, Nicole Power, Christine Knott and Courtenay Parlee



The On the Move Partnership is a project of the SafetyNet Centre for Occupational Health & Safety Research at Memorial University of Newfoundland. On the Move is funded by the Social Sciences and Humanities Research Council of Canada, Innovate NL, Government of Newfoundland and Labrador, the Canada Foundation for Innovation, and numerous university and community partners, www.onthemovepartnership.ca.

**Opportunities for and challenges of occupational pluralism in seasonal fisheries:
Regional cases from Atlantic Canada**

Atlantic Canada Regional Report

Canadian Council of Professional Fish Harvesters (CCPFH) study

Fisheries Seasonality and the Allocation of Labour and Skills Labour Market Information

December 22, 2016

Prepared by:

Paul Foley, Barbara Neis, Nicole Power, Christine Knott and Courtenay Parlee
On the Move Partnership, Memorial University

Table of Contents

Executive Summary	2
Introduction.....	5
Methods	6
Findings	10
Case studies	10
New Brunswick Regional Case Study.....	10
Nova Scotia Regional Case Study.....	11
Newfoundland and Labrador Regional Case Study	12
The degree and patterns of occupational pluralism past and present.....	15
Labour shortages, recruitment and retention.....	19
Perceptions of and interest in occupational pluralism	20
Opportunities for occupational pluralism	23
Challenges for occupational pluralism among fish harvesters	25
Conclusion	29
Key questions.....	29
Potential areas for coordination.....	30
References	32

Executive Summary

This report presents the findings from the Atlantic Canada case studies component of the Canadian Council of Professional Fish Harvesters' (CCPFH) national study entitled *Fisheries Seasonality and the Allocation of Labour and Skills Labour Market Information*, which was funded by Human Resources and Skills Development Canada. The Atlantic Canada case studies were coordinated by the Newfoundland and Labrador (NL)-based Professional Fish Harvesters Certification Board and carried out by Memorial University researchers Dr. Paul Foley (School of Science and Environment, Grenfell Campus), Dr. Barbara Neis (Sociology) and Dr. Nicole Power (Sociology), with help from Research Assistants Christine Knott (PhD student, Sociology) and Dr. Courtenay Parlee. The funds were administered by Memorial University and the research was carried out with support from the On the Move Partnership (www.onthemovepartnership.ca).

The case studies were carried out in three regions of Atlantic Canada including south-east New Brunswick (NB), south-west Nova Scotia (NS) and the Bonavista Peninsula region of Newfoundland's north east coast. Five harvester focus groups and 26 key informant (KI) interviews were carried out across the three regions in July and August, 2016 (see Table 1). Fish harvester focus groups were carried out in each region, with an overall total of 31 participants (Table 2). KI interviewees included current fish harvesters, including some engaged in aquaculture and other activities, former fish harvesters now working in tourism, fish harvester organization representatives, municipal leaders and other government representatives, KI's with a background in economic development and in training and education, and representatives from non-harvesting, fisheries-related sectors (seafood processing and ship-building) in the regions (see Table 3).

The main objective of the focus groups and interviews was to identify opportunities for and challenges associated with using occupational pluralism (OP) to address issues related to recruitment and retention of skippers and crew in Atlantic Canadian seasonal fisheries. In these case studies, OP encompassed fish harvesters supplementing their incomes through employment locally and elsewhere in:

- multiple fishing enterprises;
- other marine sectors;
- non-marine sectors.

The focus group agenda included presenting and discussing with participating fish harvesters the goals and objectives of the larger project and relevant regional findings from other study components. These included the results of an analysis of Statistics Canada census and taxfiler data and regional results of a national survey of skippers and crew. We also explored regional and individual histories of OP. In both focus groups and KI interviews, we explored KI perceptions about changing OP opportunities and challenges, the perceptions of harvesters and others regarding the recruitment and retention challenges facing seasonal fisheries, if and how different types of OP might help address these challenges, as well as some of the potential risks promoting OP might entail for some fisheries. We explored participants' perceptions about groups (skippers, crew, younger and older harvesters, types of species fished, and fleets) for whom OP might be of interest and the types of enterprises where OP might be most important and feasible as a strategy for intra- and inter-generational recruitment and retention in seasonal fisheries. We also discussed some initiatives that might improve OP options and access for these groups. In each of the regional case studies, we sought to document the participants' knowledge about the history and current patterns of OP.

Summary of Key Findings:

There are some similarities and differences across the case studies in terms of the history, extent and patterns of OP. OP has historically been and continues to be an important aspect of working life for some fish harvesters and households across the case study areas in the Atlantic region. Some fish harvesters across all case study areas had engaged in certain types of jobs, such as carpentry and construction-related jobs over their careers. There are, however, also some differences in the history, types, extent, and location of OP employment by seasonal fish harvesters across regions and social groups. Engagement in regional OP outside of the fishery, but within the larger region, appeared to be particularly strong in south-east NB with somewhat stronger engagement in inter-regional and interprovincial migration for work in Northern NB and the Bonavista region of Newfoundland and Labrador (NL). Variations in the types of OP were shaped by regional labour market differences, such as greater access to urban centres and related employment in S-E NB than in Northern NB and the Bonavista region. According to research participants, crew tend to engage in OP more than skippers. There is also evidence of some regionally-specific and likely viable examples of OP within fisheries (working on multiple enterprises), in other marine sectors (combining fisheries and aquaculture or other marine work such as shipbuilding) and outside of marine sectors (forestry, blueberries, oil and gas locally and elsewhere, carpentry).

With the exception of some NB enterprises, research participants across most regions and groups did not identify recruitment and retention of crew as a major problem in seasonal fisheries at the time of the research. However, some indicated this was a relatively recent situation linked to better prices and, in NL, regulatory changes allowing combining of enterprises. They identified this kind of volatility as a factor influencing recruitment and retention. Discussions also indicated an awareness that enterprise owners and many crew are aging and many will leave the industry in the next decade or so, suggesting the big challenge facing the Atlantic seasonal fisheries is recruiting and retaining the next generation of skippers and crew. While recruitment was identified as an issue a few years ago in S-W NS, high incomes in the lobster fishery have helped with crew recruitment in recent years; however the high cost of enterprises and prevalence of company-backed entrants could pose challenges for new independent owner-operator entrants in the future. In the Bonavista region the effects of both buddying-up and Enterprise Combining have led to crew layoffs as one crew and two skippers operate one combined enterprise reducing employment opportunities for others. In S-E NB there is some indication of current difficulty recruiting crew members that participants linked to low incomes for helpers in some regional fisheries and to other challenges. An exception in this region may be First Nations fisheries where, participants indicated, many young people want to get into fisheries because of limited options for paid work outside (partly due to racism) and where band control of licenses and ownership of vessels make it less costly for individuals to take up fishing.

The perceptions of harvesters in focus groups about and levels of interest in OP as a strategy were mixed. There is evidence, for example, of *de facto* acceptance of OP among many participants as a strategy to help individuals and households, particularly younger people and crew members, to remain in or enter the fishery. Several interviewees and focus group members engage in OP within and outside of fisheries or have done so in the past. But there is also evidence of ambivalence among some skippers about promoting OP as a strategy for addressing intra- and inter-generational labour market issues. One of the main issues contributing to this ambivalence is the perception among research participants that improved access to training in, for example the trades, could encourage crew to permanently leave the fishery for perceived better employment options elsewhere and thus contribute to crew shortages and costs. Some focus group participants also expressed concern that federal government interest in OP (as reflected in its support for this study) will support efforts to eliminate or change access to fish harvesters' Employment Insurance. A

related issue was concern that the focus on OP overlooks the work enterprise owners in particular engage in year-round, outside of the fishing season in preparation for fishing. Fixing problems in the fishing industry through fisheries management and other changes in order to improve access to resources/quotas and reduce the volatility or patchiness of fisheries seasons (down times within and between seasons for different species) and lengthening the overall fishing season would, some harvester participants thought, be the best way to improve incomes and recruitment and retention in seasonal fisheries in the present and future. Others, including some crew members and operators who worked outside the fishery when not fishing, were more likely to see the potential benefits in supporting certain kinds of OP.

There are both opportunities and challenges to OP. Low incomes and shorter seasons in some fisheries create incentives for fish harvesters to engage in OP and can facilitate greater engagement in OP where employment options exist. Other opportunities include a range of traditional and new informal and formal training and skills possessed by fish harvesters related in part to professionalization that can help prepare them for work outside of the fishing season in other fisheries and outside the fishery. Recognition of informal skills increases the transferability of skills. Developing new training initiatives targeted towards regionally specific industry needs, as well as supporting fish harvesters financially in training, are of interest to some study participants.

Challenges to OP include lack of employment opportunities locally, where most fish harvesters prefer to work, in some regions and overlapping/conflicting seasons for fishing and other types of employment (e.g. tourism and construction seasons overlap with main seasons in NL and NB). A lack of knowledge and information about seasonal job opportunities, financial and regulatory barriers in specific areas (e.g. marine related tourism), and uncertainties and anxieties about the implications of OP for fishery-related income and Employment Insurance also pose challenges to OP. The perceived reluctance of some employers to hire someone they know is going to leave to go fishing when they wish to hire on a full-time, year-round or even seasonal basis is another potential barrier to OP. Also, crew who take jobs outside of the fishery and are not available when the owner-operator wants them to work risk not getting accepted back at the start of the next season.

There is concern among fish harvesters and key informants about what will happen to regional fisheries when the current operators and crew retire. They can see the potential benefits of OP and are aware of the contributions to the regional economy of harvesters working in other regions on a seasonal basis. Key informants involved with training and community economic development suggested greater collaboration and coordination among training institutions and industry sectors around identifying labour market trends and needs might help address some of these barriers. Municipal leaders and those involved with economic development in the study areas are dealing with labour shortages or under-developed opportunities in some sectors such as tourism.

Introduction

The overall objective of the Atlantic case studies of the larger Canadian Council of Professional Fish Harvester's (CCPFH) study, *Fisheries Seasonality and the Allocation of Labour and Skills Labour Market Information*, was to access and synthesize qualitative information from seasonal fish harvesters and others in three regions of Atlantic Canada. We sought their reflections on some of the quantitative findings from other study components for their regions. We also sought to document regional patterns of occupational pluralism (OP) among different types of fish harvesters within and outside fisheries, indications of current and future challenges with recruitment and retention of operators and crew in different seasonal fisheries, perceptions of harvesters and representatives of other groups knowledgeable about fisheries and these regions about using OP to address challenges in seasonal fisheries in their areas, and ways to improve OP options for harvesters. In these case studies, OP was defined broadly as engagement in multiple jobs through the year, including within fisheries¹ (e.g. working on multiple vessels in multiple fleets) and outside fisheries. However, research participants often included various types of paid and unpaid work in their discussions of OP, which is consistent with the findings of some of the literature on occupational pluralism in fisheries.

OP is a well-recognized feature of seasonal fisheries. In historical accounts, research on OP emphasized the importance of documenting both cash (wages and government benefits) from multiple sources and non-cash sources of subsistence from the production and harvesting of food, buildings, vessels, gear, bait, engine repair, child and elder-care and other similar incomes when attempting to understand the economy of fishing households (see, for example, Brox 1972). Rather than focusing on only the activities of the fish harvester, such descriptions took into account contributions to the household from grandparents, parents and children. Over time, and to varying degrees across fisheries and regions, many of the subsistence contributions to fishing household economies have been replaced by the purchase of goods and services including not only food, fuel, vessels and vehicle/engine maintenance, but also costs associated with the construction of housing, purchasing licenses and quota and servicing debt. In the period since the 1960s when many of these studies were done, cash incomes have become much more central to the reproduction of seasonal fishing households and enterprises. However, perhaps particularly in smaller scale fisheries, unpaid work and related skills are still likely essential to these enterprises including work on vessels, engines, gear; harvesting of bait; maintenance of shore infrastructure, homes and outbuildings; participation in fisheries meetings and governance, and some subsistence food production through hunting and other kinds of activities. These predominantly rural households also play key roles in providing child and elder care and care for people with disabilities, and various kinds of community support (paid and unpaid) around the production and management of wharves and other kinds of infrastructure (volunteer fire departments), meal production, cleaning, machinery maintenance, driveway clearance and other activities essential to seasonal fisheries and the communities within which they operate.

In this report, OP is generally limited to work outside of a single fishing enterprise that generates cash incomes and access to related benefits such as Employment Insurance and pension entitlements. In a context where many sectors of the industry, in many regions, will increasingly need to attract and retain new entrants and compete more effectively in local, regional and national labour markets, the focus is on looking for ways this kind of OP could improve the short and longer term incomes and thus attractiveness of the Atlantic seasonal fisheries to crew and owner-operators. It is important to not lose sight, however,

¹ While the CCPFH study does not include this category in its main objectives, the focus group and KI participants widely identified this type of combined work as an important form of OP and we therefore include it in the analysis.

in discussions of this kind of OP of ways particular kinds of employment across fishing enterprises, in the marine sector and outside of the marine sector in local, regional and inter-regional labour markets (as in the case of Atlantic Canadian fish harvesters working in Alberta or elsewhere on a seasonal basis) could be constrained by or would need to generate enough income to compensate for lost access to unpaid enterprise, household and community services that are also essential to sustaining these fisheries.

For this study, we carried out a combination of focus groups and interviews with individuals in the fishing industry and representatives from other industries and organizations in order to gather information about:

OP and labour market challenges:

- the degree and patterns of OP among fish harvesters in each region (past and present);
- evidence of labour shortages in seasonal fisheries;
- recruitment and retention challenges for crew and skippers across seasonal fisheries and regions;

Perceptions and attitudes about OP:

- perceived options for OP by region (local, regional, interprovincial);
- attitudes of fish harvesters towards OP in each region;
- levels of interest in OP in each region;

Opportunities and barriers:

- perceived opportunities for OP as a strategy in each region;
- perceived barriers to OP as a barriers in each region.

The remainder of the report is structured as follows. The next section outlines the methods of the study, followed by a section that provides some descriptive context for the case study regions. The next section focuses on addressing the themes identified above around OP and labour market challenges, perceptions about OP, and opportunities for and barriers to OP. The conclusion summarizes key findings and relates these to questions posed by the CCPFH about the feasibility of OP in specific fleets and fisheries, the family implications of OP, the types of jobs most likely to be feasible for harvesters in the area of OP, and the skills and training implications of the study findings.

Methods

This component of the study employed qualitative methods, including focus groups and key informant interviews. In contrast to quantitative methods that aim to describe relationships between variables in numerical form and generalize findings to a wider population by using random sampling designs, qualitative research is concerned with describing the context of lived experience and aims to understand and describe social processes. In other words, qualitative methods enable us to say something about *how* and *why* something happens the way it does. In mixed methods designs, qualitative methods may verify quantitative results; however, open-ended questions allow for the inclusion of unforeseen and emergent topics that potentially point to contradictions between quantitative and qualitative results. Given the sequential mixed methods design of the larger CCPFH study and the presentation of survey findings and taxfiler data in focus groups, the qualitative results reported here suggest an interpretive framework for the patterns found in the quantitative components.

To meet the study objectives, the Atlantic Canada Regional Partner carried out fieldwork in three specific regions:

- South-west Nova Scotia (LFA 34)

- South-east New Brunswick (LFA 25)
- Bonavista Peninsula and surrounding region, Newfoundland and Labrador.

Focus groups with fish harvesters and union representatives, as well as key informant (KI) interviews with relevant regional organizations and individuals were held in each region aided by the Professional Fish Harvester Certification Board (PFHCB) and the Maritime Fishermen's Union/Union des Pêcheurs des Maritimes (MFU/UPM). Recruitment of all focus group participants was done via phone or email by Juanita Cutler and Mark Dolomount of the PFHCB (for Newfoundland and Labrador) and Ruth Innis of the MFU (for New Brunswick and Nova Scotia). Ethics approval for this research was granted by the Grenfell Campus Research Ethics Board (REB) – 20170438 and found in compliance with the Tri-Council Guidelines of ethical principles of research activities involving human participants.

Table 1 Number of KI Interviews and Focus Groups by Region

Region	Number of Focus Group	Number of Key Informant Interviews
New Brunswick	2 (FG1 English, 9 participants; FG2 French, 8 participants)	5
Nova Scotia	2 (FG1, 3 participants; FG2, 6 participants)	9 (11 participants)
Newfoundland	1 (FG1, 5 participants) Note: because only 2 FHs came to FG2, it was done as a joint key informant interview instead of a FG	12 (15 participants)

Focus groups with fish harvesters included: two in New Brunswick (NB) (one in English and one in French), two in Nova Scotia (NS) and one in Newfoundland and Labrador (NL). Focus group participants were predominantly male captains from different kinds of enterprises as well as some crew, one woman harvester in the NL focus group, and two women harvesters in the NB focus groups. The NB focus groups were comprised of inshore harvesters who currently fish one or more of the following species: lobster, scallops, herring, mackerel, crab, tuna, smelt, and gaspereau. The NS focus groups were comprised of inshore harvesters who predominantly fish lobster, and some also hold licences for cod, pollock, haddock, halibut, scallops, herring, and mollusks. Participants in the NL focus group were mostly small, inshore harvesters. However, some operated or had experience fishing on larger longliners. They targeted a range of species including, to varying degrees, crab, shrimp, lobster, capelin, cod, turbot, mackerel, and herring.

Table 2 Focus Groups by Region

Region	New Brunswick		Nova Scotia		Newfoundland and Labrador
	FG1 En	FG2 Fr	FG1	FG2	FG1
Total Number of Participants	8	8	3	6	5
Number of Captain	5	7 (1 new owner)	3	5	4
Number of Crew	3	1	0	1	1
Number of Multiple Enterprise***			1 (capt/crew)	1 (crew)	3 (capt/crew)
Total Number of Male Participants	6	8	3	6	4
Total Number of Female Participants	2	0	0	0	1

* Captains refers to Skippers who do not crew on any other enterprise.

** Crew refers to fish harvesters who are not Captains of an enterprise.

***Multiple Enterprise refers to both captains and crew who work on multiple enterprises, sometimes as captains and sometimes as crew.

KI interviews in each region were held with a variety of individuals and representatives of organizations knowledgeable about the local fishery and the regional economy. KI interviewees in NB included one First Nation fish harvester, two training/education representatives, a fish harvester who also engaged in aquaculture, and a tour boat operator who was a former harvester. KI interviewees in NS included two fish harvesters, a community organization representative, a provincial government representative, a community college representative, two training and economic development representatives, a ship building industry representative, and a fisheries organization representative. KI interviewees in NL included three town Mayors, one town Manager, two fish harvesters, a fish harvester and his partner who fished commercially and engaged in cod aquaculture, a tour boat operator and former harvester, a community college representative, a DFO representative, a Harbour Master and a seafood processor.

Table 3 Key Informants by Region and Occupation/Sector

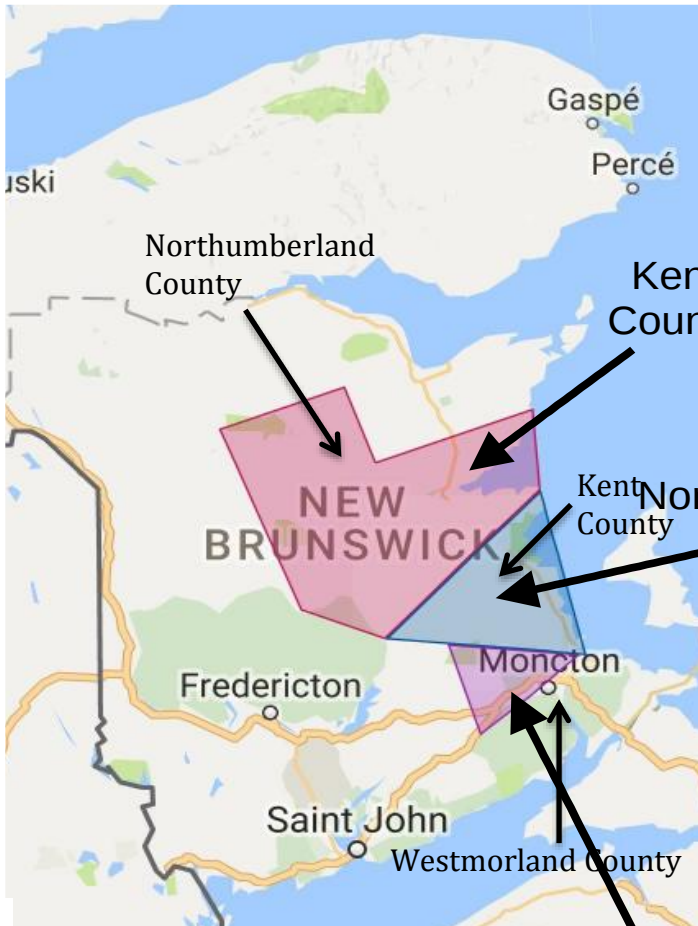
Occupation/Sector	New Brunswick	Nova Scotia	Newfoundland and Labrador
Fish Harvesters (FH)	1 (First Nations) 1 FH + Aquaculture operator	2 FH	2 FH (Joint) 2 FH + Aquaculture (Joint)
Former Fish Harvesters	1 Tour Boat Operator		1 Tour Boat Operator
Fish Harvester Organization Rep.		3 (1 Joint)	
Other Fisheries/Marine sectors		1 (shipbuilding)	2 (Joint) (seafood proc) 1 Harbour
Community Organizations		1	
Mayor			3
Town Manager			1
Training/Education /Research	2	1	1
Economic Development		2 (Joint)	1
Government Rep.		1 (Prov)	1 (DFO)
TOTAL	5 interviews involving 5 people	9 interviews involving 11 people	12 interviews involving 15 people

The focus groups were organized around the larger goals of the study and included presenting findings from other components and discussing the results. Although focus groups and KI interviews were designed to be flexible and semi-structured, questions and discussions were generally oriented towards gathering information about the seasonal fisheries in the region, labour market dynamics, including recruitment and retention, and OP. All focus groups and KI interviews were digitally recorded with the consent of participants and were subsequently transcribed into Microsoft Word documents, coded and analyzed.

Findings

Case studies

New Brunswick Regional Case Study



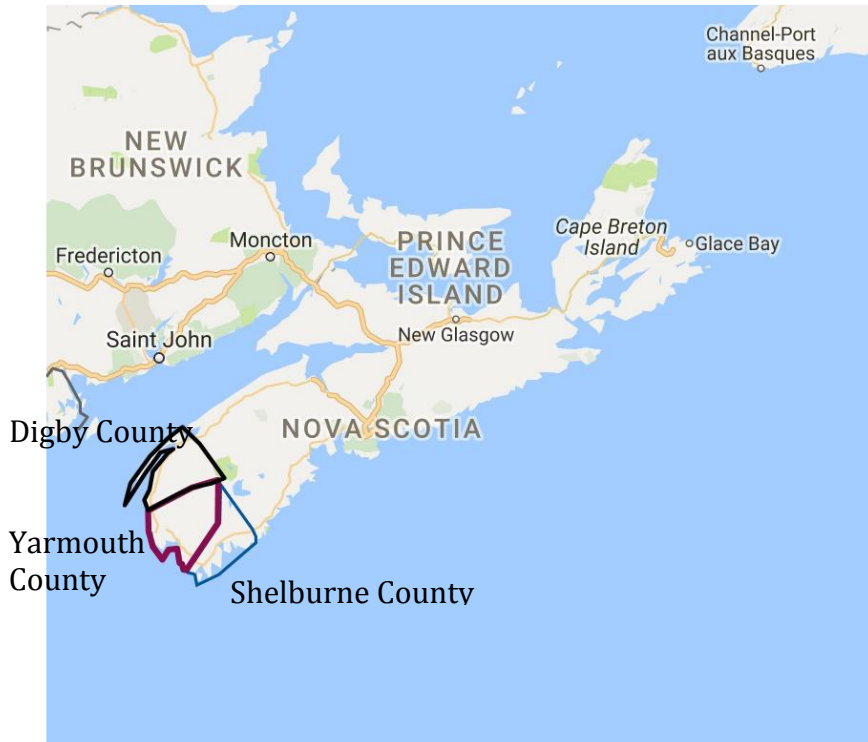
The NB case study consultations took place primarily in south-east New Brunswick, or Lobster Fishing Area (LFA) 25. The area is comprised of part of Westmorland County, Kent County and part of Northumberland County. In 2011, the total population of these three counties was 233,346 people. The total population of NB in 2011 was 751,170.

Fish harvesters in the south-east NB case study region reported having licences for multiple species including: mackerel, scallops, rock crab, tuna, gaspereau, smelt, groundfish and lobster. However, they rely most heavily on lobster and crab. Some engage in oyster aquaculture as well as fish harvesting. The NB consultations also included interviews up to as far north as Caraquet providing some insights on regional differences in NB seasonal fisheries and OP and on differences between aboriginal and non-aboriginal fisheries in the region.

* Counties shown on the map are an approximation.
Maps were generating using Google Maps.

Nova Scotia Regional Case Study

The focus of the NS case study was South-west NS, or Lobster Fishing Area (LFA) 34. This area is comprised of Digby County, Yarmouth County and part of Shelburne County. In 2014 the total population in these four counties was 78,563.



The SWNS fishery is composed of multiple species: cod, pollock, haddock, halibut, scallops, herring, mollusks and lobster. Lobster dominates the fishery for both landings and value. LFA 34 season runs from the last Monday in November until May 31st. Currently it has the highest landings and the most participants of any LFA in Canada (DFO 2015) and there are several factors contributing to this including: Canada's weak dollar which boosts exports to the United States, growing demand from China, and a shift in consumer tastes towards processed meat (The Canadian Press 2016).

* County boundaries shown on the map are an approximation.

The fishing industry in the SWNS case study region consists of multiple gear types (stick and harpoon, handline, hook and line, draggers, gillnet, digging, and traps). Within the Bay of Fundy, boats must be under 65 feet. Inshore fleets include scallop draggers; gillnetters, longline and handline with boats between 32 and 45 feet fishing for cod, halibut and haddock; and lobster boats. In LFA 34, lobster fish harvesters are permitted to 'stack' licenses, which means two fish harvesters may partner their licenses and fish them both from one boat but with a reduced trap limit. With this policy, they are able to have their 375 traps aboard their vessel, in addition to half that number from another license totaling 563 traps. There is also an offshore fishery in this area. The offshore herring and scallop fleet vessels range between 45 and 120 feet. The offshore fish draggers are between 100 and 120 feet in length.

Newfoundland and Labrador Regional Case Study

The NL case study consultations were conducted in the Bonavista region of the province. The area falls within both Economic Zone 14 and 15 of the NL Community Accounts. The population of these two economic zones was 74,225 in 2011, with both experiencing a slight decrease in population since

2006. The province as a whole had a population of 514,535 in 2011 and experienced a 1.8% increase in population between 2006 and 2011. The gross medium income in 2013 was \$29,700 for zone 14, and \$27,915 for zone 15 (Community Accounts, 2011a; Community Accounts 2011b).



The fishing industry in the NL case study region consists of multiple gear types (seine, gillnet, hook and line, and traps), and mostly small boat (under 35ft), or “speedboat” inshore harvesters fishing crab, lobster, cod, capelin, turbot, and herring out of 5A, 6A, 6B, 6C, 8A and 9A. There are also mid-shore, supplementary fleets that fish in the over 40ft boats for crab and shrimp, as well as an offshore, over 65ft fishery that fishes in 3k for both crab and shrimp. The fishing “season” currently runs from April or May until August, but a few fisheries are open in the fall until October or November. Fishing also tends to be patchy in the sense that fishing starts and stops within the overall season, depending on what licences harvesters hold,

how quota is allocated and the seasons for different species. A good example of this patchiness in employment is the recent commercial cod fishery where harvesters had weekly quotas that many could catch in only a day or two leaving them with no work to offer their crew until the next week.

Table 4 Fishing Season by Region for Participants

New Brunswick	Nova Scotia	Newfoundland and Labrador
April/June to July, then again October to November: Rock Crab (subject to change)	November (last Monday) until May 31: Lobster	April/May: Crab and Shrimp
August to October: Lobster	Patchy throughout	June to August: Cod and Capelin
Patchy throughout		October/November: Cod, Mackerel and Herring.
		Patchy throughout

Below, we highlight some aspects of OP that are unique to each region and others that are common before turning to a deeper analysis of some of the findings. Overall, a key finding is that harvesters and other key informants generally believed that local opportunities for employment outside fishing have declined and that such regional opportunities have varied over time and between regions.

New Brunswick

Research participants reported that there are longstanding patterns of OP in the region, but indicated that some employment opportunities outside fisheries in the region have generally declined or disappeared. For example, participants reported a decline in opportunities with the Canadian National Railway, as well as within shipbuilding, forestry, and agriculture relative to the past. The NB case included some notable insight into intra-regional differences. For example, KIs suggested that the seasonal unemployment rate is likely higher in northern parts of the region where there are fewer offseason opportunities leading to more reliance on working away in other provinces than in the SE. Opportunities outside the fisheries were identified as more accessible to harvesters in the southern part of the region, which is closer to urban areas such as Moncton. The context of First Nations communities appears to be different from non-First Nations communities as it relates to the fishery, employment patterns and recruitment. According to a KI, the social, cultural and regulatory context is different within the First Nations communities, where, he believed, young people are more interested and engaged in the fishery and where greater opportunities for employment exist in the fishery because of the communal nature of access and engagement in fisheries employment (e.g. fewer financial barriers to entry for individuals). Part of the attractiveness of the fishery to young FNs, this KI suggested, is related to barriers to employment outside their communities due in part to racism.

Similar to other regions, fish harvesters in SE NB reported working in different enterprises within fisheries and in other fleets within and outside the region. For example, cases were reported where fish harvesters have travelled from New Brunswick to Southwest Nova Scotia after their fishing season is complete to work as crew on lobster boats. Fish harvesters and key informants reported that people in the region combined fishing work with tourism, aquaculture, agriculture (e.g. blueberries), and fish processing (though this was reported by participants as a rare combination). Outside the marine sector, examples of OP identified by participants include combining fishing and carpentry, construction (e.g. roofing, painting, concrete pouring and road/driveway paving), heavy machinery and truck driving, agriculture, and forestry (privately owned woodlots as well as private industry). Participants reported some inter-provincial mobility, particularly in the northern parts of the case study region. Overall,

recruitment was not identified as a major issue currently but participants were concerned about inter-generational recruitment (e.g. youth entry into the fishery).

Nova Scotia

Research participants reported longstanding patterns of OP in the region with a decline in some key areas of historical opportunity, such as forestry. The lobster fishery was the focus of most research participants' responses and discussions. An important feature of this region during the study period was the historically high prices for lobster and the relatively strong economic condition of the fishery, which also tends to have a long season relative to other fisheries and regions. An important issue highlighted by fish harvesters and KIs in the region is the changing nature of employment in the fishery and the ambiguity of some employment relations, particularly with the perceived decline of independent owner-operator enterprises and a rise in corporate controlled enterprises. Some skippers indicated that their ability to recruit crew was sometimes affected by the expectation that incomes would substantially exceed Employment Insurance benefits for that period. Company involvement in license purchasing, some skippers suggested, is having the effect of inflating prices beyond the means of better off harvesters. Another key issue in the region is the lack of coordination within the fishery sector (a result of the historically fragmented nature of the fisheries and fish harvester organizations) and the lack of coordination between sectors around labour market challenges and opportunities. KIs from training institutes and from economic development agencies highlighted the need for better labour market information and coordination.

In terms of current patterns of OP, there are some similarities to the other cases. Participants identified examples of OP within the fisheries sector, including crew on other vessels and harvesting multiple species/licenses. Other examples of OP within the marine sector included tourism, shipbuilding, and fish processing (though limited) within the region. Outside the marine sector, participants identified combining fishing and carpentry, welding, and construction. Like in NB, participants suggested that there has been a decline in non-fisheries sector opportunities within the region, such as forestry. Moreover, like the other cases, recruitment was not identified as a problem in the current context, particularly for the lobster fishery, but participants recognized that the current situation is historically unprecedented and that recruitment, particularly inter-generational recruitment, will likely become an issue in the future.

Newfoundland and Labrador

Research participants reported longstanding patterns of OP among some harvesters in the region. Participants perceived opportunities for work in and outside the fishery were limited within the region, and dynamic and variable outside the region (partly because of the cyclical nature of opportunities in industrial development projects within and outside the province including in the oil and gas sector). The Bonavista region is relatively close in proximity to regions with periodic booms in industrial projects, such as Bull Arm, which have generally provided short-term but lucrative employment opportunities for some. Participants perceived most opportunities, however, as requiring longer-distance travel to industrial projects in areas such as Muskrat Falls (Labrador), St. John's, and Alberta. Fish harvester participants worked in multiple fisheries and gear types, but most discussions involved the small boat sector (under 35ft) where harvesters fish crab, lobster, cod, capelin, turbot and herring or the mid-shore, supplementary fleets (over 40ft) where harvesters fish mainly crab and shrimp.

As in the other case study regions, participants identified several examples of different types of OP occurring within the fishery, including working in multiple enterprises. They also identified

examples in the marine sector outside the fishery, including crew on other types of vessels (e.g. oil and gas industry related), marine construction (e.g. constructing wharfs and dredging), shipyards, and aquaculture. Outside the marine sector, OP examples identified by participants included trucking and heavy equipment operation, small business ownership (retail), construction, and seasonal work in the oil and gas industry within and outside the province. Crew recruitment was not considered to be a major issue in current fleets, though participants and KIs were concerned about inter-generational recruitment given the aging labour force and the cost of acquiring new enterprises.

The degree and patterns of occupational pluralism past and present

Historical patterns

OP has historically been and continues to be an important aspect of working life for perhaps a third or more fish harvesters and households across the case study regions. Across the cases, research participants reported fish harvesters' livelihoods have a long history of formal and informal (unpaid and cash economy) OP. Although the CCPFH's overall study does not characterize fishing work in different enterprises as OP, the most important form of OP, as understood by the participants, consists of having access to multiple species of fish throughout a fishing season either within their own enterprise or through working in multiple enterprises. There was general agreement that many fish harvesters are dependent on fewer species and in some cases less quota than in the past. For example, a fish harvester from S-W NS explained:

I've been fishing for 42 years, 39 of those I was a license holder. Currently I only fish lobsters because of the way the system is. I mean, years ago, I mean you used to be able to do other types of fishing in the summertime, but that has deteriorated. I mean, quotas drop and it's not sufficient enough to go groundfishing and stuff. So things have changed a lot. So right now it's really just a seasonal job. Six months lobster fishing" (Fish Harvester from NS).

However, it was not uncommon in NL and in NS for captains to work as crew on others' vessels when their quotas had been caught.

Many participants responded to questions about OP by referring to the various types of fisheries and non-fisheries jobs they have engaged in overtime and how some of those patterns and opportunities have changed. In both S-W NS and S-E NB, for example, participants reported a long history of logging and privately owned woodlot work noting that access to these kinds of work has recently declined, particularly in NS. Participants also reported a decline in engagement in agriculture over time although engagement in blueberry production and harvesting may have increased in recent years. Other regionally specific opportunities have also declined. For example, Irish mossing was reported by several fish harvesters in S-W NS as providing an important off-season income opportunity in the past but less so today and S-E NB harvesters have lost access to seasonal employment with the railway in recent years. These opportunities have been replaced for some by access to construction work in the region and elsewhere.

There are also regional patterns in terms of what fish harvesters have worked at, and relationships between those patterns and the wider regional economy. The availability of the jobs is highly variable and sporadic. For example, shipbuilding ebbs and flows. It is currently booming in S-W NS and presents a significant but perhaps temporary (in terms of quantity) opportunity for harvesters. Moreover, given that the lobster fishery is relatively lucrative, fish harvesters are not taking up these positions as much as shipbuilders who

are seeking employees would like. Regional industrial projects provided temporary opportunities in construction and various trades, including marine work for some fish harvesters in the area adjacent to the Bonavista region as well. Overall, as stated above, a key finding is that harvesters and other key informants generally reported that local opportunities for employment outside fishing have declined and that such regional opportunities have varied over time and between regions.

Contemporary patterns

Overall, the rate of engagement in OP might be in the range of 30%. The CCPFH Survey Findings 2015, which used tax-filer data, indicated that 25%, 23%, and 19% of fish harvesters reported income from work outside the fishery in NL, NS, and NB respectively. These statistics do not include either OP within fisheries as in the case of harvesters who work in multiple enterprises and also don't include unreported cash incomes resulting from short-term employment within or outside of the fishery. If these are taken into account, the rate of OP in these regions could be 30% or higher in some areas.

There are some similarities and differences across the case studies in terms of the current extent and patterns of OP. Where occupational pluralism was reported by focus group participants and interviewees, there were similarities across cases in the types and prevalence of employment, such as the widespread reporting of OP involving carpentry and construction jobs. Consultations also indicated there is some variation in the extent, types and location of OP employment by seasonal fish harvesters across regions, across social groups within regions and over time. Engagement in regional OP outside of the fishery appeared to be particularly strong in S-E NB and stronger engagement in inter-regional and interprovincial migration for work associated with some other regions (i.e. Northern parts of S-E NB, and the Bonavista region). Variations in the types of OP were shaped by regionally specific industry opportunities, such as access to urban development opportunities in S-E NB and some large-scale industrial projects outside the Bonavista region. There is also evidence of some regionally-specific and likely viable examples of OP within fisheries (working on multiple enterprises), in other marine sectors (combining fisheries and aquaculture or other marine work) and outside of fisheries and marine sectors (forestry, blueberries, oil and gas locally and elsewhere, carpentry). There was also some variation in OP rates and types of OP across groups and fleets. Generally, the focus group and KI participants indicated that crewmembers or helpers appear to be more likely to engage in OP and small-boat operators and crew with limited licenses and incomes appear to be more likely to have shorter seasons and a greater incentive/need for income supplements.

Generally speaking, existing patterns of occupational pluralism included combining harvesting employment (e.g., working on multiple enterprises), combining harvesting and employment in the marine sector, and combining harvesting and employment in other sectors. The list below provides examples of each pattern and is not meant to indicate that each case study contains significant opportunities in all types of jobs or that all fish harvesters are suitable for or interested in these jobs:

1. Fishery-related jobs within the region
 - Harvesting/access to other species/licenses
 - Crew on other enterprises/vessels
2. Marine sector outside the fishery
 - Shipping/cargo
 - Ferry boats

- Tourism
- Shipyards and shipbuilding
- Aquaculture

3. Blue-collar jobs

- Carpentry
- Welding
- Plumbing
- Trucking/heavy equipment operators
- Construction (e.g. paving; concrete; highway construction)
- Oil and gas industry (e.g. NL/Alb.Sask.)

Other notable examples include small-businesses, such as aquaculture operations, blueberry operations, tourism operations and restaurants with spouses. Many of the jobs identified were locally based but some involved inter-provincial mobility including to Alberta and other places. There is also variation in the degree of formality, with a sometimes-unclear picture of whether some of the positions were part of the formal or informal economy.

Based on these findings, the types of jobs most likely to generate some interest among fish harvesters interested in OP, in order of stated priority, include:

- 1) fishery-related (e.g. expanded opportunities to fish longer under current arrangements or to find jobs with other vessels, fleets, etc.) within the region,
- 2) jobs in the marine sector, and
- 3) various jobs with similar skill sets in areas such as carpentry, construction, heavy equipment operator, snow plow operator, ideally within their region (but some migrate interprovincially to live in camps and work on sites), and involving employment outside of the fishing season.

Patterns also emerged around the skills of contemporary fish harvesters. These skills can be categorized into two types:

- Formal fishery-based
 - Professionalized marine and navigational skills (e.g. minimum sea time requirements/experience; “tickets,” etc.)
 - Marine safety (Marine Emergency Duties certification)
- Informal “jack of all trades”²
 - Multiple skills working on boats/water
 - Cooking
 - Good and quick judgement
 - Interpersonal and team work skills
 - Leadership skills
 - Small engine repair
 - Carpentry
 - Basic electrical skills

² We use this term because it was a common expression among fish harvesters and key informants.

There is evidence that some fish harvesters are willing to travel long distances to engage in OP, which is consistent with the perception of limited local opportunities. This occurs within the fishery and outside the fishery. For example, some crew in S-W NS lobster fisheries are harvesters who travel from NB, PEI and NL. Across the cases, there is an indication of a general pattern of some harvesters travelling to Alberta for work in the oil and gas industry in recent years and returning seasonally to work in the fishery, particularly in S-W NS and NL. A key informant from a training institution explained:

...we insist with young fishermen, newcomers, yes it is profitable, yes it is good, but get yourself a second job so that if anything ever happens to the industry you will have a way out. And many do it. But again if you go back 5, 6 years where the fishery, especially the lobster fishery was not doing well, many fishermen I knew went out west. The economic boom out west, many people from our region, many fishermen, even though they were educated and good workers, went out there to work people it paid much more (Training institute representative from NB).

The lobster industry, right now I mean if you look at Facebook, crews are a dime a dozen. We've had two good seasons. You go on Facebook, they are a dime a dozen. Three or 4 years ago, there was none. You couldn't find one. Good thing we had PEI, New Brunswick, Cape Breton because there wasn't enough people around this area to do it. Now they have all come back. Out west is a disaster, they have all come home, they all want the big money again (Fish Harvester from NS).

However, these opportunities have diminished with the downturn in the oil industry. This change has not only reduced the opportunities for harvesters to engage in OP through long-distance commuting work, but have also increased the available workforce for regional fisheries. Some of these workers will likely return to full-time employment outside the fishery if employment opportunities out West return, though others might continue to engage in the fishery permanently or through OP.

Motivations

The motivations for engaging in OP were consistent with the CCPFH survey, but a number of additional motivating factors were identified. The seasonality of fisheries plays a role in the extent to which work in multiple enterprises and outside of the fishery is feasible for harvesters. Fishing seasons vary within and between regions. The S-W NS lobster fishery is a predominantly winter fishery whereas fisheries in these regions of NL and NB take place mainly in the spring and summer. The summer fishery for NB and NL conflicted with occupational opportunities in the respective regions that were tied to tourism and in some cases construction.

When explaining why some people engage in OP, responses often referred to how low incomes motivate some individuals to seek out other fishing opportunities to supplement their main job or other jobs in the off-season in the region or outside. This is particularly true for younger fish harvesters who tend to have more significant financial needs:

I've got 2 old fellows on my boat, their houses are paid, they can live on unemployment but if you are young and you've got house payments and taxes and all that stuff to pay, you have to work. Like the young guys now, they are on scallop boats, they are scallop fishing, but there is only room for so many... We got a couple here that just bought into the fishery a couple of years ago and they go and fish scallops on George's Bank in the summer time to supplement their

income because they owe a lot of money so they have to get ahead somehow (Fish Harvester from NS).

Financial need is shaped in part by family and household patterns. Family-related factors were noted as a strong motivating force among some harvesters engaging in OP:

You know, a lot of people wants to better themselves and they wants younger people, you know, they probably gots family and if they get a new home or something, or they want to get a new car or something, sure, go away once the fishing season is over (Fish Harvester from NL).

I got one guy who does carpentry, he usually fishes with me in the summer, but he decided he had a young child, he's getting married, he is on the land, he called me one day and wanted to go herring fishing (Fish Harvester from NS).

Labour shortages, recruitment and retention

Focus group participants and interviewees provided little indication of current labour shortages in seasonal fisheries across all regions and groups, due in part to the combined effects of recent price increases in key fisheries, the effects of enterprise combining on labour needs and reduced employment opportunities side the fishery in some sectors. However, inter-generational recruitment is a major challenge. High incomes in the lobster fishery in S-W NS and the effects of buddying up and enterprise combining on demand for crew in the Bonavista region have contributed to labour surpluses in some areas with the problem being less a lack of interest in fishing in the region and more a problem with few available berths. There is variation, however, with the strongest signal for current recruitment challenges identified in S-E NB where there is a large number of enterprises, many with relatively low incomes. There are indications from focus group participants and interviewees, based on the age of enterprise owners and concerns about costs of enterprises and the relatively low wages of many crew, that there are significant challenges to the recruitment and retention of a future generation of owner-operators in the seasonal fisheries. An exception in this region may be First Nations fisheries where many young people want to get into fisheries because of limited options for paid work and discrimination outside their communities and where band control of licenses and ownership of vessels makes it less costly to take up fishing.

Recruitment issues were more pronounced in relation to discussions about inter-generational access transfer and recruitment of young people into seasonal fisheries. The overwhelming barrier to long-term recruitment was identified as the cost of enterprises and licenses and the often-associated issue of the erosion of the owner-operator and fleet separation policies and the consolidation and financialization of quotas and resource access. For example, referring to situations where people with non-fishery occupations own licenses and do not fish, one fish harvester participant from NS explained:

That's because people owning them that have no business owning them. Like the plumbers and electricians. Like basically a lot of them are out of the picture and you have to buy them at shall we say extreme prices that basically it's not profitable to catch them (Fish Harvester from NS).

There is a general tension within the industry about the rights and expectations of the current generation in transferring their assets through market principles (e.g. sell/market to the highest bidder) versus

intergenerational equity principles (e.g. support for the next generation to enter the fishery by transferring enterprises from father to son or daughter at a reduced cost). We learned about cases where this was happening but there was also support for the right of owner-operators to essentially sell their enterprises to the highest bidder. Younger harvesters were not well represented in the focus groups so it would be useful to know more about the challenges faced by this group.

Another overall theme emerging from the data is the importance of recognizing change and dynamism in the labour market. Changes within the fishery can influence perceptions about the desirability and need for OP. In each case study, for example, some fisheries were experiencing relatively good prices and returns during recent years. Changes in other sectors can also influence opportunities for OP. The recent decline in the oil industry reduced opportunities for OP among harvesters in each region but also increased the labour supply and helped address recruitment challenges in the past few years. Fisheries management changes, moreover, can also affect the length of seasons and the structure of the labour market. For example, the instances of consolidation of enterprises, licenses, and crew reduce the demand for crew and labour.

Perceptions of and interest in occupational pluralism

The perceptions about and levels of interest in OP as a strategy were mixed in the consultations. Overall, across the cases, the proposition to encourage and support fish harvesters having access to non-fishing jobs outside the fishing season was met with mixed reactions and some ambivalence. On the one hand, there is evidence of *de facto* acceptance of OP among many participants as a strategy to help individuals and households, particularly younger people and crewmembers, to remain in or enter the fishery. OP is happening in all regions and likely in all fleets and fisheries. In each case study region, there were examples of individuals from different fleets engaging in OP and captains were generally supportive of crew accessing non-fishing jobs outside the fishing season and some talked about trying to accommodate conflicts between fishing needs and other employment. On the surface, then, it makes sense to look for ways to encourage and support fish harvesters in accessing non-fishing jobs outside the fishing season as discussions indicated a general support for individuals and households who engage in OP to supplement incomes and make a living.

On the other hand, there was concern expressed in each case study region about the objectives of the study and about promoting OP as a strategy to improve recruitment and retention of crew and owner-operators in the seasonal fisheries. Ambivalence was particularly strong among some captains because of concerns that helping crew access more formal training and to find work outside of the fisheries could lead to people leaving the fishery for perceived better employment options elsewhere and possibly pressures for higher wages from those who would like to remain. Enhanced opportunities in other sectors or in other provinces can result in labour recruitment challenges some thought. As one research participant explained in S-E NB:

There came a time during the fall herring fishery that captains could not fish, they could not find enough hands, lack of people. More people were going away because they made more money. It is a long term thing. Instead of having a herring season, two or three weeks, they said to themselves, "If I go there, [out west] I have a job for the winter, I can come back in in the spring for the lobster season, that is two months, then they go back" (Key informant from NB).

Some participants were also dubious about OP as a strategy for improving incomes and recruitment and retention because of concerns the CCPFH study was linked to perceived government agendas to eliminate fish harvesters' Employment Insurance benefits and to force them to take work when not fishing. In S-NB, for example, one participant intervened in one of the focus groups by exhorting:

They are talking about eliminating fishing stamps right? That is what it is...They are going that way; that is what they want... (Fish Harvester from NB).

Referring to his belief that the consultations were connected to an agenda that could lead to people being forced to find employment outside the fishing season, one participant in a focus group in S-W NS stated:

Yes, right. They all blame it on the fisheries, someone is pushing this stuff around...government are waiting for fishermen to retire or die, so people are being forced to look for employment outside the fishery (Fish Harvester from NS).

Some participants made the point that the focus on OP overlooks the work enterprise owners in particular and some crew engage in year-round, outside of the fishing season and that fixing the fishery by changing management to re-establish a less patchy and longer fisheries season would be the best way to improve recruitment and retention in seasonal fisheries. Fixing problems in the fishing industry and fisheries management (e.g., diminishing access to resources/quota, low incomes especially for crew, and addressing financial barriers to purchasing enterprises) was identified as a more appropriate strategy than OP for ensuring a healthy future for seasonal fisheries. The perception that seasonality of the fishing industry can better be addressed through fisheries management and that the policy changes linked to OP might threaten livelihoods that depend on formal paid labour during the fishing season and other unpaid work (preparation for upcoming season) in the offseason was identified across the cases. Some participants were also dubious that employers would be willing to hire harvesters when they knew they were going to leave the jobs to go back fishing.

Many harvester interviewees and participants responded to questions about seasonality and OP with discussions about fisheries management as the problem and the target for creating a solution. Perceptions about fisheries employment issues such as shortened seasons, a decline in multi-species fisheries opportunities, and reduced incomes were often identified as fisheries management issues. Many people wanted to discuss fixing fisheries management in response to questions about income/employment alternatives, reduced access to resources and the privatization/commodification of resource access through trust agreements. Fish harvesters, not surprisingly, often believe that they are not given enough opportunity to fish. There is a risk, therefore, that developing OP as an explicit strategy will be perceived as a way to circumvent addressing perceived fisheries management problems such as short fishing seasons, reduced access to resources, and the privatization and commodification of resource access that reduces incomes through trust agreements and rent capture.

While not all harvesters have spouses or children, the research results suggest that their decisions pertaining to OP are often shaped by family dynamics and are, in many instances, part of household strategies. Where harvesters are part of a family, family dynamics can provide an incentive or disincentive to engaging in OP depending on the situation and context. Family commitments can impact the willingness and ability of harvesters to engage in different types of OP within and outside the community. There are circumstances in which a younger family might have greater financial incentives for engaging in other

well-paid occupations to supplement seasonal fisheries income and to generate income that is greater than Employment Insurance benefits. Younger families with high expenses due to, for example, mortgages and children, might have greater incentives to generate a high income in the off-season. Reflecting on past experience, one key informant explained:

So myself personally, I said well, my first newborn was in the oven. That was coming. And we needed to assure a good, sound financial, you know, package there, so I started doing carpentry (Fish Harvester from NB).

A major concern identified by captains across the cases is the idea that “if you train them, they will go” out of the industry. One key informant from NL explained:

The sad part is what has happened in a lot of cases is a lot of young guys will go into the Marine Institute and do Fishing Masters tickets and they will...before you know it, they are off on the lake boats, but they never come back because they kind of train themselves out in the industry . I mean, once they realize that they've got this nautical ticket, they're gone, which is kind of ironic that, you know, we have encouraged people to go to school and train to become fishermen and get Masters tickets, but they actually continue on with their education and end up moving right out of the industry. I can think of numerous situations where that's happened (NL Focus Group Participant).

Some captains are reluctant to encourage crew to pursue advanced levels in formal marine training because they believe advancement will result in them leaving.

Generally, there is evidence of a perception that encouraging and supporting fish harvesters' access to non-fishing jobs outside the fishing season would on the surface result in better prospects and less resistance in fleets and fisheries with shorter seasons (for fleets and fish harvesters with fewer licenses and more limited access to resources). There was a shared perception among focus group participants and interviewees that crew members and small operators with limited incomes and/or limited access to fish resources tend to need and engage in OP to a greater degree than captains and those in larger scale fisheries. Where owner-operators generate an income sufficient to cover their costs from fishing and Employment Insurance, as when costs are relatively low, there are few incentives to engage in OP. One of the exceptions is situations where owner-operators have substantial debt payments to make and where Employment Insurance benefits are insufficient to cover payments.

In addition to these overall findings, the research suggested some different perceptions and patterns of need within and across the cases. For S-E NB, it would make most sense to encourage and support fish harvesters' access to non-fishing jobs outside the fishing season in much of the non-First Nations fisheries that are generally struggling with relatively short seasons and low incomes. In S-W NS, there would likely be more interest in OP in intertidal fisheries that have shorter seasons and lower incomes. It would make less sense to encourage and support fish harvesters' access to non-fishing jobs outside the fishing seasons in the lobster fishery, about which the study gathered most data. At the time of study, the lobster fishery enjoyed high prices, long seasons and harvesters reported very good incomes. In the Bonavista region of NL, it would likely make more sense to encourage and support crew and skippers of smaller vessels in their efforts to combine fishing with other types of employment within the region and beyond through improved training and other changes.

Opportunities for occupational pluralism

Although not necessarily desirable, low incomes and shorter seasons in some fisheries create incentives for fish harvesters to engage in OP and can facilitate greater engagement in OP. Other opportunities include a range of traditional and new informal and formal training and skills possessed by fish harvesters. Recognition of informal skills constitutes an opportunity as does increasing the transferability of skills. Developing new training initiatives targeted towards regionally specific industry needs, as well as supporting fish harvesters financially in training, are of interest. Key informants involved with training and community economic development also suggested that greater collaboration and coordination among training institutions and industry sectors to identify labour market trends and needs might help address some of the barriers. We identify some of the opportunities below:

- *Professionalization:* Professional Certification criteria in NL may have some impact on occupational pluralism opportunities, particularly when it comes to limits within those criteria on non-fishing employment during the fishing season. Under the current criteria, harvesters are expected to work at fishing on a full-time basis during the season. Beyond that the PFHCB encourages harvesters to explore whatever employment options they can find both inside and outside of the fishery outside of their fishing season. There is a challenge and somewhat less tolerance within the system and among many harvesters with people who are clearly employed full-time outside of the fishery wanting to fish during the season, particularly if they are interested in gaining Level II status and access to federal species licenses. The board is more accepting of apprentices who work outside and want to work as crew on a seasonal basis than it is of harvesters who work outside who want to upgrade to Level I or II. In some ways, the NL professionalization process allows for (and promotes) occupational pluralism opportunities outside the fishing season when harvesters are not fishing by requiring increased formal training and skills development amongst fish harvesters – especially those who have taken up fishing since 1997 when the current professionalization regime was first introduced. Formal training related to professional certification has the potential to enhance OP opportunities for fish harvesters where this training is transferable to other kinds of work both within the marine sector and outside. There are currently no similar professionalization requirements in other Atlantic provinces. The Nova Scotia Seafood Sector Council has a proposal into DFO to establish a certification regime. Otherwise, the only constraint on going fishing in these other jurisdictions is DFO regional licensing policies which are less restrictive and onerous than those in NL. Essentially, harvesters who are starting out have to fish part-time for 2 years to be eligible to go full-time and become eligible to take over licenses. Technically these harvesters also have to meet Transport Canada certification requirements but it is not DFO's practice to require harvesters to demonstrate that they meet the Transport Canada requirements before issuing licenses. In NL, the training harvesters get as part of professionalization is often above and beyond that required by Transport Canada regulations.
- *Seasonal synergies:* In SW NS, for example, the lobster fishery is predominantly a winter fishery, meaning that OP might work in occupations that are concentrated in the summer such as construction:

For us, you know, construction is an ideal job to go to June, July, August because that's when everything is done (Fish Harvester from NS).

Similarly, winter work in NL, Alberta, B.C. and further north in construction, trucking, snow plowing and other occupations would combine well with a spring/summer and early fall fishery in

NL, so would activities that can extend the fishing season like cod farming where harvesters land, hold and feed cod and then market them in late fall or early winter and oyster and other forms of shellfish aquaculture.

- *Skills recognition and enhancement programs:* Recognition of the informal skills and training as well as increased recognition and transferability of formal training could be explored. Training institutions could help recognize the existing skills that harvesters bring to other occupations and help people recognize other places where those skills are applicable. Fish harvesters often have a mix of various skills, such as business development and management, mechanics, carpentry, increasingly digitized navigation, welding, and knowledge of government regulations. A key informant from a training institute in one of the regions explained:

Well if you look at it we have two sectors...we have many fishermen who come here that the fishing industry, a company or other who want fishermen, sailors, there are good on the water, they have skills, aptitudes. They come here because they need training to bring them to a higher level to be able to work on those vessels. We have many people in the area who are captains, who are deckhands for those companies. Other say, "No, I am not interested, I fish but I would rather take a course in carpentry", they will come to the community college they will study to become carpenters, plumbers, some are welders, different trades, these are people who like to work with their hands, and they work in the area (Training institute representative from NB).

The skills that fish harvesters have are also changing. For example, there is evidence that younger harvesters are generally bringing new knowledge and skills to the fishery, such as skills with computerized and digital equipment. While key informants generally were critical of youth as lacking motivation and traditional skills typically associated with fishing, some recognized that the some of the youth entering the fishery are more skilled with changing technologies of navigation and the mechanical equipment that increasingly incorporate digital components and electronics.

Fish harvesters could also benefit from supports and training:

- *Financial supports to facilitate training and aid in other expenses related to training:* These include supports for travel and accommodation. These might include in-house training offered by other industries. For example, in Nova Scotia, the shipbuilders association offers training.
- *Training supports should be attentive to regional context and needs:* The training required to do the other jobs listed above depends on context and availability. In general, however, harvesters might require: 1) additional marine-related training for the marine-related jobs, and 2) various training in non-marine related jobs. For example, S-W NS remains a major hub of shipbuilding while trucking is an occupation in greater need in S-E NB.
- *Information campaign on the implication of various OP scenarios for Employment Insurance and training of Employment Insurance officers in OP:* Many fish harvesters in each region regularly participate in the Employment Insurance system but comments suggest there is some uncertainty and anxiety about the implications of OP for E.I. eligibility and for hassle-free access to E.I. Some discussions in focus groups and in KI interviews invoked examples of challenging and conflicting

experiences with Employment Insurance related to working in fishing and outside. There was a range of concerns, confusion, and anxiety about the risks and potential penalties associated with working in non-fishery jobs. Activities and supports would be needed to enhance knowledge and skills in understanding the implications of OP for employment insurance.

- *Information campaign for the fishing industry leaders and fish harvesters generally that identifies how training for non-fishery skills and jobs will not necessarily result in permanent exit from the industry:* The industry must address the perception and risks that “if you train them, they will go.” Clear examples of success and opportunities should be articulated to help address this problem. The purpose here is not to suggest that training will not lead to industry exit. The purpose is to illustrate circumstances where OP can work to improve outcomes for individuals, families, and communities.
- *Access to labour market information:* There is a general lack of systematic communication of labour market information to fish harvesters. One option to help address this issue is enhanced knowledge sharing between the fishing industry and other sectors. Coordination among industries and training institutions appears to be lacking in each region and coordination and communication is likely more challenging in some regions than in others. In S-W NS, for example, the fishing industry is notoriously fragmented and lacks overarching representative organizational capacity. Coordination and communication might be more conducive in a context like NL, where industry is less fragmented under the organized leadership of the FFAW-Unifor and the PFHCB. Coordination within the fishing sector and between the fishing sector and other sectors could help define regionally-specific needs around training, financial supports, and labour market information. There are further opportunities with communication by using social media, Facebook pages, and other web-based tools that future harvesters will likely engage on a more consistent basis. Overall, there are opportunities to provide more information to match people with available opportunities in training and jobs.

Challenges for occupational pluralism among fish harvesters

There are both opportunities and challenges to OP. Potential barriers include a lack of knowledge and information about seasonal job opportunities, financial and regulatory barriers in specific areas (e.g. marine related tourism), and uncertainties and anxieties about the implications of OP for fishery-related income and Employment Insurance. The reluctance of some employers to hire seasonal employees when they wish to hire for full-time, year round is also a notable barrier.

For those fish harvesters who may wish to engage in occupational pluralism, there are a range of challenges and barriers for fish harvesters seeking out-of-season jobs.

- *Lack of interest in non-fishery jobs:* While various individuals engage in OP for diverse reasons, others are not interested. This lack of interest can be partially explained by several factors outlined below.
- *Preference to fish:* Fish harvesters generally prefer to engage in fishing for their livelihood. There is often a strong cultural dimension shaping this preference, meaning that harvesters identify

strongly with making a living through fishing. OP was not always the preferred solution to seasonality and related issues of incomes and cost of enterprises.

- *Lack of suitable opportunities locally:* Overall, there is strong perception that there is a lack of well-paid suitable employment opportunities available within the regions. Proximity to urban areas and employment opportunities in parts of S-E NB is somewhat of an exception.

There is nothing available for fish harvesters looking to 'diversify their portfolio' because there is no quota, clambers aren't doing that well, no jobs in forestry, can't get job in a mill because they've shut down, few do carpentry, and landscaping but there isn't really much around to be able to make a plan (Fish Harvester Organization Key Informant from NS).

Well, for a fellow like me with a trade in carpentry, it's not that much work around here either in the winter (Fish Harvester from NL).

- *Lack of incentive to engage in low-income employment:* Where jobs are available locally at an income level that is relatively low, fish harvesters have less incentive to engage in non-fishing employment. Available local employment outside the fishery is often considered the equivalent or less than employment insurance benefits, meaning that harvesters have little incentive in OP in this context.

If fish harvesters could find gainful employment in the fishery all year around they would rather do that but it's not possible in a lot of cases...If the right jobs were there they wouldn't have any problem. If someone presented seasonal options (i.e. janitor, road construction sign holder) or you could make as much money making EI, that would be a difficult decision. Those are the decisions fish harvesters are faced with in terms of the types of employment they could take in their off season...it's not what their profession is, what they trained for (Provincial Government Key Informant from NS).

- *Challenges related to employment opportunities requiring long-distance commuting:* Some of these are not necessarily desirable opportunities but, rather, options that people feel compelled to take:

Most people don't like going out west, you talk to people and they don't want to be going out west but they have to because there is nothing here (Fish Harvester from NS).

Long-distance travel over extended periods presents a number of challenges. It is usually costly and can result in incentives for workers to permanently relocate and thus exit the fishing community.

- *Patchy seasons:* Many fish harvesters, particularly those engaged the harvesting of a range of species, often engage in the fishery sporadically as the seasons for some fisheries open and close for short periods throughout the year or throughout the general fishing season. The sporadic breaks from formal fishing are not conducive to engaging in other forms of employment. Preparation work for fishing is also required to maintain fishing. Moreover, harvesters are less likely to return to a patchy fishery season if they are engaged in other more stable employment.

- *Clash of seasons:* In some situations, non-fishery jobs opportunities are also seasonal and overlap with the fishing season.
- *Perception of “taking someone else’s job:”*

Not enough jobs for everybody. Nobody wants a fisherman to take someone else’s job. And some of them are so good to the community. Say well I stay home so you can have your job (Fish Harvester from NS).

- *Employment Insurance:* There is uncertainty about the implications of OP for the employment insurance system generally and an individuals’ access to benefits.
- *Disincentive for captains to hire crew engaging in OP when they perceive that the potential crew are more interested in the alternative employment:*

You know, I could get a guy—I know guys that will come fishing with me. I mean, they’ve been in the oil fields in Alberta for years. I’d like to hire somebody I know is going to stay around. You know, and I don’t blame them. Probably if I hired them—well, I don’t need a crew member. I’ve got my crew. But you know, I’d think twice before hiring him because if I can find somebody else that I know is going to stick around, I’m not going...a foreman in Alberta, he’s probably going to get the hell out of here. You know, you can’t blame him (Fish Harvester from NS).

- *Lack of employer interest:* There is a perception that where jobs are available out-of-season, employers will be reluctant to hire seasonal fish harvesters since employers generally will want to hire full-timer workers. There are, in other words, institutional incentives and/or disincentives for employers to hire, lay off, and rehire harvesters on a seasonal basis and problems with scheduling such intermittent labour.

I have one crew that was a welder, he went welding and then he come fishing. His boss wanted him doing the welding and I wanted him, so there is a little bit of friction there... (Fish Harvester from NS).

*And it’s very hard—I mean you can probably obtain a part time job, but to obtain a very good job and go to an employer—and I’ll use [**Removed 47] in this instance and they’re looking for some kind of a good position, managing position, they would not train me and hire me if I tell him I have a boat inside the harbour and in November I have to go back to my original job. They got no reason to say I will train this guy for a month, keep him on the payroll for three months, but then he’s got to go back to his original job. They want somebody there that they can train and they want him permanent (Fish Harvester from NS).*

How many employers want to take on a person if they know they are only there temporarily. Why would you put your effort into training them if you know they’re going to leave for 10 weeks or one week or six months or two months (Fish Harvester from NB)

[My employer] called me into his office. He said, [name of respondent] he said, “You got to go to work here full time.” He said, “We got a seniority list here.” I was climbing the seniority list. And I said, “I can’t... And he said, “What do you mean, you can’t?” I said, “I got a fishing outfit. I fish in the summertime.” “Well,” he said, “if you can’t work here, I got a paper here.” And he pulled the door open up like this, took the paper out. He said, “I want your resignation then” (Fish Harvester from NB).

- *Perception of “if you train them, they will go”*: Training does not necessarily lead to industry exit. There were a number of instances in which individuals trained for non-fishery trades not only stayed in the fishery but also returned to the fishery following a time away from the industry. While the reality is more complex, the perception of “if you train them, they will go” is strong:

Yeah, but if you’re going to encourage people, like give them training to do something else, probably seven out of ten would choose their career over fishing, I would say, because they are going to make more money at their career than they would at fishing” (NL focus group participant).

We tend to be training our young people to move away (Training institution representative from NL).

- *Lack of training or recognition of existing skills relevant to certain positions.*
- *Perception that fish harvesters lack skills that are transferable*: This was not perceived universally as a barrier, but is a noteworthy perception that exists among some harvesters.
- *Regulatory barriers around investing in and accessing work in certain sectors* (e.g. Transport Canada regulations for harvesters interested in combining fishing and marine tourism).
- *Labour market volatility*: There is a perception that local labour market opportunities have been in decline in each region.
- *Lack of labour market information*:

*I don’t know where I would go today if I wanted, you know, a half decent job in this area to be paid what I’m used to getting paid during the 12 month season or even half of that. I could go to work at [**Removed 11] for \$11.15” (Fish Harvester from NS).*

This list does not mean that each barrier is the same within and across the regional case studies. There are differences within regions that will likely affect the degree to which it will make sense to encourage and support OP. Examples of regionally specific barriers include:

- Some regions appear to have greater or lesser traditions of long-distance commuting work, meaning that the barriers and opportunities for long-distance commuting work vary within and across regions.
- The barriers to training are also variable, with some regions having better access to training institutions and opportunities.
- The clash of seasons also varies across fleets and regions.

- According to a research participant from a NB First Nations community, racism limits opportunities for young people outside of fishery and outside the community.

Conclusion

Key questions

The CCPFH³ asked us to use the results of the consultation to comment on the following questions:

1. In which fleets or fisheries would it make sense to encourage and support fish harvesters having better access to non-fishing jobs outside fishing season?
2. In these fleets and fisheries are there barriers for fish harvesters seeking out-of-season jobs? If so, what are they?
3. What are the family issues/implications of expanded occupational pluralism, and how might these be managed?
4. What kinds of jobs would be most suitable for fish harvesters? Why those jobs? Where are they available?
5. What skills do most fish harvesters have now, and what skills would they need to acquire, to do these other jobs?
6. What activities and supports (training, financial support, LM information, etc.) would be needed to help fish harvesters succeed?

The findings suggest that the smaller the enterprise (in terms of access to species licenses and quota), the more interest there was among harvesters in accessing jobs outside the fishing season but age, debt load and training are also likely factors here with older harvesters with less debt able to survive on smaller incomes. Currently, harvesters in the lobster fishery in S-W NS appear to be the least likely to need OP in order to stay in the seasonal fishery due to high incomes and longer seasons than in some other areas.

We detail a range of barriers for fish harvesters seeking out-of-season jobs. The most significant barrier is the lack of reasonably well-paid local employment opportunities suitable for harvesters and that offer employment outside the fishing season or can be done during the season as with harvesters who invest in bed and breakfasts or restaurants for the tourism trade.

There are a number of family issues that appear to enable or impede OP. Young fish harvesters appear more likely to have an incentive to gain well-paying job opportunities outside the fishing season, partly because of financial needs related to household and family expenses and the costs associated with buying their own enterprise. These forces are often enough to make highly mobile work (e.g. travelling to Alberta during the winter) more desirable than local employment but we know from On the Move research that there is less of this work available now than in the recent past and there is less support for those who do travel to places like Alberta to work from the point of view of travel and accommodations costs. The insecurities of depending on OP and changing jobs on a regular basis and pressures on them to stay with

³ Note: These questions were not part of the original study design in this format. However, project partners expressed interest in prioritizing these questions and we have analyzed the data in an effort to shed light on these questions. .

a job or lose it can also create incentives for harvesters to exit the fishery in favour of full-time, year-round employment locally or elsewhere.

Jobs that appear to be preferred by many fish harvesters engaging in OP include various marine-related jobs that involve working with and onboard different kinds of vessels and across fishing enterprises and fisheries, and non-marine related jobs in carpentry, construction, heavy equipment operation and other types of trades-related work. The availability of those jobs is mixed. Few local jobs apparently exist but carpentry and construction related jobs appear conducive to seasonal and contract work. Others are available in major industrial centers such as Alberta (identified in all cases), Muskrat Falls and Bull Arm (for the NL case), and Moncton (for parts of south-east NB). Fish harvesters have a range of skills, such as carpentry, basic electrical and plumbing skills, and engine repair. Other soft skills include team-work skills and good judgement. Fish harvesters seeking off-season employment would benefit from innovative recognition of existing skills and building on those to develop and acquire additional training. Enhanced information campaigns about training opportunities and job opportunities would help this process, as well as new training initiatives and financial resources. New and enhanced labour market information could be developed through improved relationships and coordination among public and private regional bodies and communicated through new media platforms, including new websites and fish harvester-driven social media sites.

Potential areas for coordination

Many of the themes identified in the report were relatively consistent across the different categories of non-harvester KIs, which included mainly training institute representatives, business representatives, government officials, and economic development officials. Some unique issues and opportunities emerged out of discussions with various KIs, however. A set of general themes around structural challenges and opportunities surrounding labour market information, intra-sector collaboration, economic development, and communication strategy emerged, all of which can be potentially be improved through multi-sectoral and multi-organizational coordination.

The challenge of attaining better labour market information was identified implicitly or explicitly as an area needing attention by some KIs. In NS, for example, officials working with a regional economic development organization have been struggling to track movements of labour from one industry to another. This information is critical for understanding what sectors need labour and when labour is needed. Coordination among governmental and non-governmental organizations around labour market information resources and needs might help in this area. For fish harvesters interested in OP, better information is needed about the dynamics of opportunities in other sectors. For example, one challenge the processing sector in S-W NS has, as identified by an economic development KI collaborating with the sector, is getting a clearer picture of when the labour needs occur throughout the year as production ebbs and flows. Coordination might also help improve the sharing of existing labour market information. A training institute in NB recently completed a market study examining strategies around four sectors, which included processing, fishing, shipbuilding, and aquaculture. A coordinated approach around labour market information could ensure that such information is shared with relevant groups.

Coordination and collaboration is also important within certain sectors. A KI with the provincial government in S-W Nova Scotia suggested that the lack of a single fish harvester organization is a major challenge in that region and constitutes a constraint against developing labour market strategies. In NL, however, the industry is far more organized around the FFAW and the PFHCB, creating better conditions for developing coordinated approaches. There are also opportunities for coordination amongst

training institutes within regions and provinces. In NL, for example, a training institute KI noted the governance challenges there with the Marine Institute of Memorial University focusing on marine-related training while the College of the North Atlantic engages in training for other sectors. Institutional coordination within regions and provinces within various sectors (e.g. fisheries and training) could be explored to identify marine-related training appropriate for harvesters including marine cooking or marine vessel maintenance and to offer that programming in the relevant regions. In NB and Quebec, harvesters have been able to receive funding, in some cases, for training related to developing an alternative occupation. It is not clear this is happening in other areas.

Coordination is also important in terms of the broader strategic challenges around the multi-sector economic development aspects of OP. In S-W NS, for example, KIs involved in supporting economic development were very concerned about labour shortages in sectors such as seafood processing and have been working with the sector to address these challenges. While there are no formal coordinated efforts around identifying and developing OP alternatives, existing organizations could provide a mechanism to do so. In S-W NS, for example, the Western Regional Enterprise Network includes a workforce committee that might offer a potential mechanism through which to engage multiple sectors in open discussions. Its innovative partnerships and communications strategy focus on working with various partners and leveraging assets in a complimentary fashion. Similar regional development organizations and initiatives could be engaged in other regions and provinces to initiate discussions around potentially developing formal collaborations to support OP strategies.

Coordination can also improve communication to fish harvesters. If coordination occurs in a more formal way, it might help harvesters to acquire better information about labour market information and about the resources and opportunities available to them (e.g. in training, government agencies, and development agencies). A KI from a training institute in S-W NS suggested that fishermen do a lot of communicating through Facebook and Facebook is the mechanisms through which a lot of younger fishermen link up to the training institute in the region. The KI in this area was also not aware of government agencies that help harvesters systematically identify seasonal job opportunities, aside from an employment services office that posts jobs or helps individuals find a job. Rather than rely on such a passive approach, a coordinated communication strategy could be developed that more actively engages harvesters allowing them to more actively identify and interact with training and employment opportunities.

References

- Community Accounts, NL (2011a). **Economic Zone 14 Data**. Retrieved October 28, 2016. http://nl.communityaccounts.ca/profiles.asp?_vb7En4WVgb2uzqVjWQ
- Community Accounts, NL (2011b). **Economic Zone 15 Data**. Retrieved October 28, 2016. http://nl.communityaccounts.ca/profiles.asp?_vb7En4WVgb2uzqVjWg
- Brox, Ottar 1972. Newfoundland Fishermen in the Age of Industry: A Sociology of Economic Dualism. St. John's: ISER Books.
- DFO 2015 2015. Stock status update of lobster (*homarus americanus*) off southwest nova scotia (lobster fishing area 34). http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2016/2016_037-eng.pdf
- The Canadian Press 2016 <http://www.cbc.ca/news/canada/nova-scotia/lobster-boom-spreads-wealth-around-economy-1.3767232>