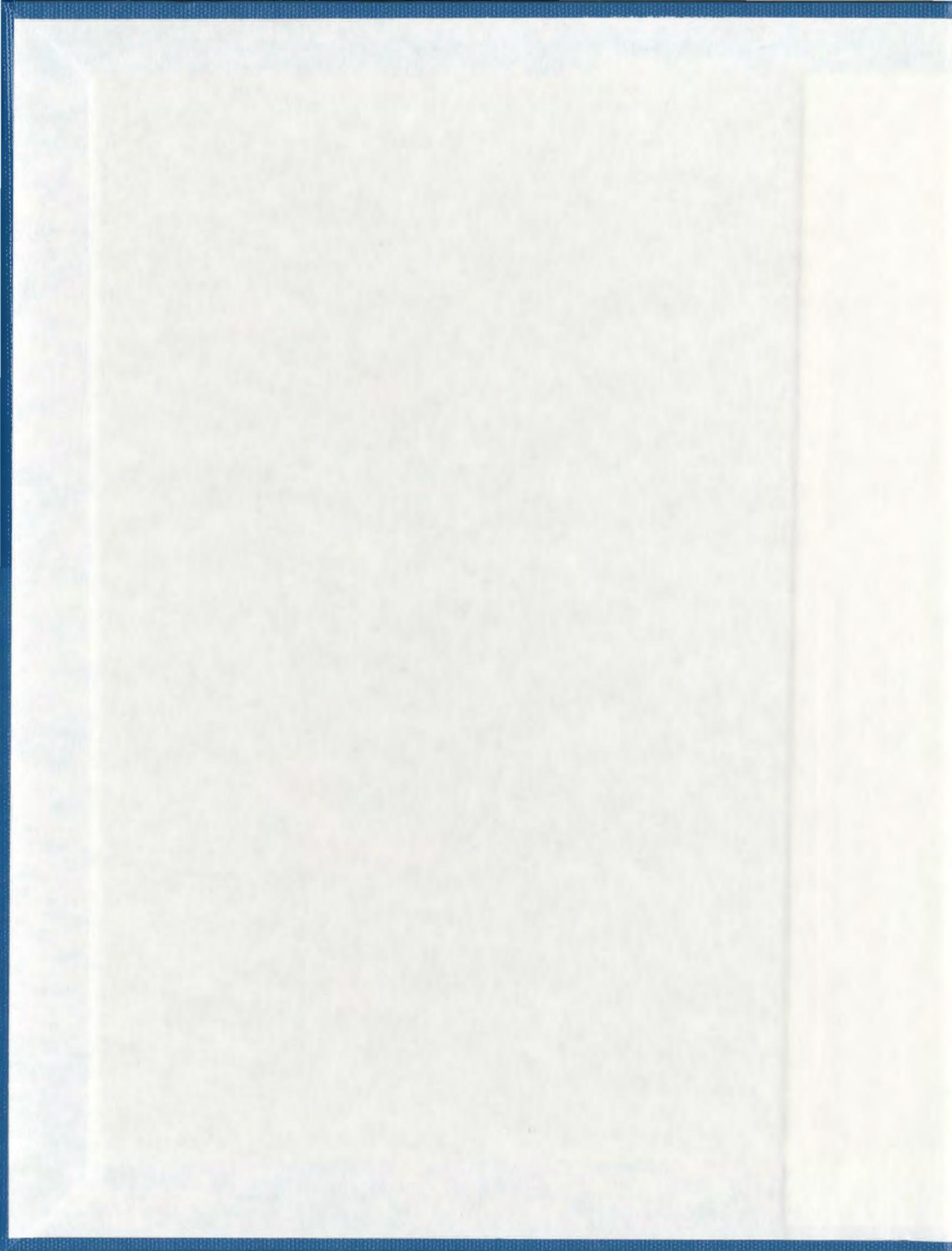


HEALTH, OCCUPATION AND COMMUNITY:
SOCIAL-ECOLOGICAL RESTRUCTURING AND
PRINCE RUPERT FISH PROCESSING WORKERS

CHRISTINE KNOTT



HEALTH, OCCUPATION AND COMMUNITY: SOCIAL-ECOLOGICAL
RESTRUCTURING AND PRINCE RUPERT FISH PROCESSING WORKERS

by

Christine Knott

A thesis submitted to the
School of Graduate Studies
in partial fulfillment of the
requirements for the degree of
Master of Women's Studies

Women's Studies / Faculty of Arts
Memorial University of Newfoundland

August 2009

St. John's

Newfoundland

Abstract

This thesis is an exploratory study based on 16 in-depth interviews with fish processing workers and key informants, as well as statistical information from Statistics Canada and Work Safe BC, that examines how restructuring of the British Columbia fishery has affected fish processing workers in Prince Rupert. Using a feminist social-ecological framework, it traces the history of the fishery including the fish processing industry from its conception until 2008. The historical overview since 1980 focuses on the political, industrial, environmental, and social restructuring of the industry and the ramifications of this interactive restructuring for the occupational, personal, and community health of fish processing workers in Prince Rupert. Special attention is paid to the ways that gender, race, class, and ethnicity interact and overlap, resulting in harsh ramifications for most workers but particularly those who are female, aboriginal, and fighting to stay above the poverty line.

Acknowledgments

I would like to thank all of the interviewees who volunteered to participate in this research project with me. Without them, this thesis would not exist. As well I would like to thank the UFAWU in Prince Rupert, and everyone who works there, for their help knowledge and resources, before during and after the research process. Also I would like to thank my supervisors, Barb and Nicole, whose knowledge, advice, and editing, were crucial to getting this project done. Thank you. A huge thanks to my family, Kelly and my parents, on both sides, thank you for your support and help, allowing me time to work on this. Monte andayah, thank you for your patience while I worked on my thesis (and Monte for your offers to write it for me). I would also like to thank Amanda and Erin for their support and aid at the end of the thesis, when I needed it the most. Finally, I would like to thank the two reviewers of my thesis, Dr. Cullum and Dr. Solberg, Dr. Cullum especially provided extensive detailed comments and edits that were very much appreciated. My ability to conduct research in Prince Rupert was made possible by funding from a Canadian Institutes of Health Research Interdisciplinary Capacity Enhancement Grant (ICH 62328) through the SafetyNet Centre for Occupational Health & Safety Research at Memorial University, to which I extend my appreciation and thanks.

TABLE OF CONTENTS

List of Tables	v
List of Maps	vi
List of Figures	vi
List of Abbreviations and Symbols	vii
List of Appendices	viii
Chapter 1 Introduction	1
1.1 Restructuring and Fisheries: An overview of existing research.....	2
1.2 Analytical Framework.....	10
1.3 Methods.....	18
1.4 Social Relevance and Practical Importance.....	23
1.5 Chapter Outline.....	26
Chapter 2 History of the BC Fishing Industry 1871-1970	29
2.1 1871-1900.....	30
2.2 1900-1945.....	34
2.3 1945-1970.....	38
2.4 Summary.....	42
Chapter 3 Social-Ecological Restructuring and the BC Fishery 1980-2008	44
3.1 Prince Rupert.....	46
3.2 Institutional Restructuring.....	50
3.3 Environmental Restructuring.....	64
3.4 Industrial Restructuring.....	70
3.5 Social Restructuring.....	82
Chapter 4 Restructuring and Health	106
4.1 Occupational Health and Safety.....	106
4.2 Prince Rupert Fish Processing Workers.....	116
4.3 Social-Ecological Restructuring and Occupational Health and Safety.....	140
4.4 Community.....	149
Chapter 5 Conclusion	166
Bibliography	172
Appendices	182
Appendix A Statement of Ethical Issues.....	182
Appendix B Consent Form Fish Processing Workers.....	188
Appendix C Draft Interview Schedule.....	192
Appendix D Consent Form Health Professional.....	197
Appendix E Telephone Script Health Professional.....	201
Appendix F Draft Interview Schedule.....	202
Appendix G Plant Layout Map.....	205

List of Tables

Table 1: Population Change Prince Rupert 1996 -2006.....	46
Table 2: Prince Rupert Ethnic Population 2006	47
Table 3: Prince Rupert - City First Nations Population 2006.....	47
Table 4: Values and Costs of Housing in Prince Rupert 1996-2001	48
Table 5: Effects on Gear Types of 1996 and 1998-2000 Buybacks.	56
Table 6: BC Seafood Landings ('000 tonnes) 1998-2007.....	57
Table 7: BC Aquaculture and Harvest Values 2005-2007	66
Table 8: Claim Counts by Injury Year and the 1991 Standard Occupational Classification (SOC), Injury Years 1997-2006.....	113
Table 9: Claim Counts and Broad Groups of Accident Type, Injury Years 1997- 2006	114
Table 10: Average Age, Claim Counts by Gender, and Injury Years 1997-2006 ...	114
Table 11: Occupational Disease by Detailed Occupation and Year 2003-2007.....	115

List of Maps

Map 1: Map of Canada, BC Coast, and Prince Rupert	ix
Map 2 Seafood Processing Plants in BC	72
Map 3: Seafood Processing Plants in Prince Rupert.....	74
Map 4: Body Map Female Fish Processing Workers.....	119
Map 5: Body Map Male Fish Processing Workers	120

List of Figures

Figure 1: Social –Ecological Framework.....	13
--	-----------

List of Abbreviations and Symbols

BC – British Columbia

DFO – Department of Fisheries and Oceans

FW – Fish Processing Worker

KI – Key Informant

I – Investigator

OHS – Occupational Health and Safety

PM – Plant Manager

PRFCA – Prince Rupert Fisherman’s Co-operative

Ryco – Name of company that produces fish processing machinery

**TransVac – Name of pump used to suck fish from boats holds onto unloading
dock/conveyer belts.**

UFAWU – United Fisheries and Allied Workers Union

UFCW – United Food and Commercial Workers Union

NSSC – National Seafood Sector Council

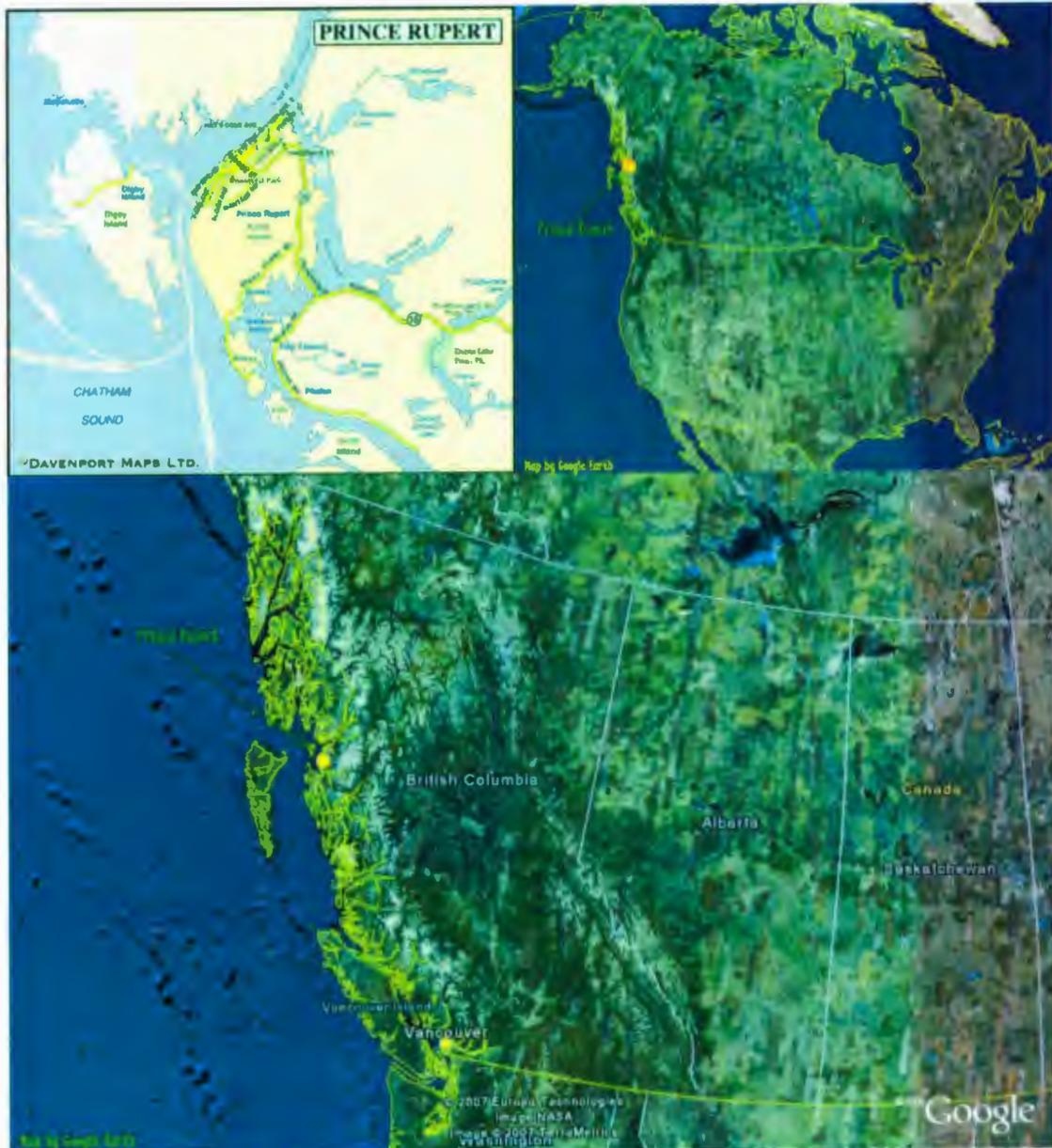
QOL – Quality of Life

WCB – Workman’s Compensation Board – Currently called WorkSafeBC

List of Appendices

Appendix A: Statement of Ethical Issues	182
Appendix B: Consent Form – Fish Processing Workers	188
Appendix C: Draft Interview Schedule Fish Processing Worker	192
Appendix D: Consent Form – Health Professional	197
Appendix E: Telephone Script.....	201
Appendix F: Draft Interview Schedule Health Professional	202
Appendix G: Plant Layout Map	205

Map 1: Map of North America, BC Coast, and Prince Rupert



(PrinceRupert.Com 2009)

Chapter 1: Introduction

The public awareness of the BC seafood processing industry, as a separate entity from capture harvesting and aquaculture growout operations, is limited. The public identifies primarily with the primary production phrase of the fisheries and aquaculture and their various issues and controversies. Seafood processing alone is relatively anonymous (Gislason 2007: 162).

In research reports and other publications focusing on fishing, shoreworkers often constitute an invisible sector of the industry... Yet shoreworkers have played an unambiguous and central role in the development of the industry (Guppy 1987: 199).

Fish processing workers in Prince Rupert, British Columbia (BC), as with other fish processing workers elsewhere in the province and the rest of Canada, are engaged in work that is a significant, yet mostly invisible part of the Canadian Seafood industry. Their labour and its consequences for their health are mediated by seafood stock health and thus by fisheries management and harvester action; global and domestic markets; government regulation (both federal and provincial); industry expansion and contraction; ownership and control over seafood processing; technological change; unionization; gendered and racialized labour markets; and government policy.

This thesis is an exploratory study of Prince Rupert fish processing workers' perceptions of the ways the recent and ongoing restructuring of the BC fishery is affecting their health and that of their community. Drawing on insights from feminist political ecology and research on women's occupational health, I examine: 1) changes in the work environment of fish processing workers and their origins; 2) what fish processing workers in these plants have to say about how their occupational health, personal health and the health of Prince Rupert have been affected by interacting changes

to fisheries ecology, changes to the work and social environments of fishery-based communities, and policy shifts associated with the restructuring of the BC fishing industry; and, 3) if and how social categories of race, class, and gender appear to have mediated the effects of restructuring on the health of fish processing workers.

The remainder of this chapter will provide an overview of the existing research on fish processing in Canada and occupational health and safety risks and diseases in fish plants around the world. It also presents an overview of the theoretical framework, methodology, and significance of this research project, concluding with an outline of the thesis and a brief overview of each chapter.

1.1 Restructuring and Fisheries – an overview of existing research

Risks to the health of fisheries, fishery workers and fishing communities on Canada's east and west coasts have been a major focus of concern in recent years. These risks have been linked to interactions between stock collapse, related ecosystem change, shifting efforts to new species, as well as policy and market changes (Dai and Martin 2008, Dolan et al. 2005, Howse et al. 2006, Ommer 2007, Power 2008, Parish et al. 2007, Sinclair and Ommer 2006). Fisheries on both the east and west coasts of Canada have experienced significant declines and even the collapse of specific fish stocks such as cod and sockeye salmon, despite increases in scientific study and (re)regulation. The failure of expert-based science and mismanagement have contributed to a growing acceptance within and beyond government circles that fish harvesters have important knowledge related to ecological change and safety risks that can help guide policy and reduce risk

(Dolan et al. 2005, Felt et al. 1997, Felt 2000, Hutchings 1996, Johannes 1998, Maguire 1995, Neis and Weinstein 2000). Less attention has been paid to the ecological and occupational health awareness of fish processing workers, despite mounting evidence of substantial occupational and population health risks in fishery-based workplaces and communities on Canada's east coast (Howse et al. 2006; Messing and Reveret 1983, Power 2000). This gap is particularly significant in BC research.

Recent research has documented population health consequences, such as rates of psychological stress and substance abuse, as notably higher for BC's coastal communities when compared to other BC communities. These higher risk communities include Prince Rupert and others that are fishery dependent (Dolan et al. 2005, Ostry 1999, Dai and Taylor 2008). However occupational health issues in the BC seafood processing sector have not been studied, and close attention to the impact of gender and the very limited research on the ecological knowledge of processing workers has been largely confined to Atlantic studies (Howse et al. 2006, Neis and Grzetic 2005, Harrison and Power 2005, Power 2000, Messing and Reveret 1983, Lamson 1986, Ilcan 1986). Included in this literature are insights into interconnections among resource, worker and community health.

Much of the literature on occupational health and safety (OHS) points to the growing demand for fish and seafood worldwide and the implications of this demand for the OHS of those employed in processing plants, such as increased employment and increased workers compensation claims (Jeebhay 2000). It is relevant to note that 95 percent of the 'increased' job opportunities in this industry are appearing in developing

countries (Jeebhay et al. 2004). The literature selected for review was drawn from research conducted worldwide, discussing settings in the USA, Canada, Africa, Sweden, Norway, the Netherlands and the UK.

Occupational health and safety hazards generally fit into five categories: physical, chemical, biological, ergonomic, and psychosocial (Neis 1994). Biological hazards include allergic and respiratory problems. Allergic reactions among fish and seafood plant workers arise from exposure to the seafood (the skin, skin mucus, entrails, muscle and connective tissue, exoskeleton, blood, fish juice (Bang et al. 2005, Barraclough et al. 2006, Jeebhay et al. 2004). Other less referenced allergic reactions or skin irritations are caused by exposure to cleaning products (Massin et al. 2007) and respiratory damage resulting from diesel and exhaust fumes (Bang et al. 2005).

The nature of fish or seafood processing work such as degutting, heading, cooking or boiling of fish, mincing of seafood, fish meal milling and/or bagging, and cleaning of the processing line or tanks, exposes workers to allergies in two ways: (1) through airborne particles, and (2) through direct contact with exposed skin. Commonly, high-pressure water (and sometimes air) is used to clean fish, to extract meat from shell fish, and to clean work stations, and has been connected with occupational asthma because of the heavy (high molecular weight) proteins that are released into the air and subsequently inhaled by workers, resulting in the development of asthma over time (Jeebhay 2001).

Occupational asthma is the development of breathing difficulties due to obstructed airways from severe bronchial hyper-responsiveness (tightening of the airway) and inflammation as a result of the working environment (Howse et al. 2006). Seafood

processing associated with high levels of occupational asthma-causing proteins, micro-organisms, and endotoxins include: crustaceans (crab, lobster, prawns, etc), mollusks (muscles, scallops, etc), and pisces (bony fish such as trout, salmon, cod, etc) (Jeebhay et al. 2001; Howse et al. 2006; Barraclough et al. 2006; Bang et al.2005; Sherson et al. 1989; Banlokke et al. 2003). Bang et al. 2006), found a significant reduction in aerosol exposure could be achieved by switching from high-pressured air to water to clean and remove seafood meat. Jeebhay and Lecler (2004), further differentiate between wet processing activities (grading, gutting, packing fish, and cleaning work surfaces) and dry processing activities (fish butchering, packing in cold and box storage), observing that wet processing activities produce higher particle concentrations than dry. In a few studies, respiratory symptoms were discovered that were not associated with allergies, but were caused by the same process of inhaling particles released from the seafood (Bonlokke et al. 2003; Sherson et al. 1989). While some processing plants have more mechanization than others (usually larger plants contain more machines), Jeebhay et al. have found that the health risks associated with air borne particles are more related to the adequacy of the ventilation system than degrees of mechanization (2001).

Other studies have highlighted the health risks posed by non-seafood components present in processing plants. For example, bio-chemical sensitization to seasonings added to seafood products such as garlic, onion, spices, and mustard, over time can create skin irritations such as contact dermatitis (Jeebhay et al. 2004). In addition, moist working environments are ideal locations for the growth of mold and other micro-

organisms in areas that are not routinely disinfected, with inhalation of the mold spores and bacteria posing significant negative health consequences (Bang et al.2005).

There are also chemical and physical risks in seafood processing plants. The cold temperatures of processing plants can be a health risk in some cases leading to, or aggravating Raynaud's syndrome, which results in painful, pale and cold extremities (Jeebhay et al. 2004). Exhaust fumes from forklifts in and around processing plants have also been identified as health concerns for workers (Bang et al.2005). Massin et al. (2007) studied the health risks of cleaning and disinfecting products (chloramines and adlehydes) used in food (poultry and cattle), processing plants and found that there was a significant relationship between these products and acute irritant symptoms in eyes, nasal passages, and the throat. A less significant finding of a relationship between cleaning products and respiratory symptoms such as bronchial hyperresponsiveness was also found (Massin et al. 2007). Cleaning and disinfecting products are widely used in the seafood processing industry suggesting similar problems may exist there.

The musculoskeletal injuries most commonly found to affect fish and seafood processing workers are cumulative trauma disorders, such as, neck pain, shoulder pain, girdle pain, elbow pain, wrist pain, carpel tunnel syndrome, lower back pain, and forearm pain (Jeebhay et al. 2004, Nahit et al. 2001, Nordander et al. 1999). The activities associated with these disorders are: cutting and trimming of fillets, forceful motions of upper limbs, heavy lifting, constrained neck postures such as when sorting, standing for long periods, or as required when grading, sorting, and cutting seafood, as well as filling bags and cans with seafood (Jeebhay et al. 2004).

Seafood and fish processing workers worldwide reported incidents of these musculoskeletal disorders, as did workers in other food processing industries (Jeebhay et al. 2004, Palsson et al. 1998, Nahit et al. 1999, Hansson et al. 2000). In seafood plants, these disorders are commonly divided by gender. This can be explained, in part, by the gendered division of labour that exists within fish processing plants, leading to different musculoskeletal injuries for male and female employees (Nahit et al. 2001, Nardander et al. 1999, Palsson et al. 1998, Hansson et al. 2000, Leclerc 2004). Men tended to report lower back pain, and their work tended to involve more heavy lifting. In contrast, women were more likely to report shoulder, wrist and forearm pain, which results from more repetitive job tasks (Nahit et al. 2001, Nardander et al. 1999, Jeebhay 2000). Overall, women tended to fare worse than men, with studies finding that women had three times more musculoskeletal injuries than men, and reported higher sick leave as well (Nardander et al. 1999, Hansson et al. 2000, Palsson et al. 1998).

The gender division of labour has been found to be only one factor affecting the distribution and prevalence of OHS diseases and injuries. Psychosocial factors, which are mediated by gender, also play a role. Within fish and seafood processing, common psychosocial factors identified in the literature include: control over work environments, which includes speed of work and when to take breaks,; severity of work environment; social support at work; satisfaction at work; job security (most workers are seasonal or contract workers); and poor organization of the work environment (Norander et al. 1999, Nahit et al. 1999, Hansson et al. 2000, Leclerc et al. 2004, Palsson et al. 1998, Howse et al. 2006). In these studies gender mediated psychosocial factors, with women more often

than men reporting little to no control over their work environment, having to work at fast speeds set for them, and taking breaks only if given the opportunity to do so (Messing and Reveret 1983, Nordander et al. 1999, Nahit et al. 2001, Leclerc et al. 2004). As a result, gender is a significant factor in OHS risks in seafood processing as seen in the psychosocial scores of women compared to men.

As explained in Leclerc et al. (2004), the positive association found between job control and onset of shoulder pain for women was related to the inability to take a break when needed and thus give the muscles a rest when they became sore or tired. Nordander et al. (1999), found a significant difference in work tasks between male and female workers, with female activities scoring high for repetitiveness and poor working postures for extended periods of time. This is in opposition to male workers whose jobs had much higher job control, and thus were more flexible in terms of mobility and taking breaks. The only area where women scored higher than men for psychosocial conditions was social support, thus women generally had a stronger support network than men (Nordander et al. 1999). There were also reports of an emotional dimension in the incidence of back and neck pain, but the mechanics of this relationship are unknown (Leclerc et al. 2004).

While OHS injuries and diseases have been documented and reported in the seafood processing industry in Eastern Canada, Europe and Africa, authors suspect they are generally under-reported and/or misdiagnosed (Jeebhay et al. 2004). Problems with under reporting and misdiagnoses have been discussed in the literature and may be

related to larger socio-economic trends that may deter workers from reporting, such as unstable economies and labour markets.

In summary, OHS risks in fish processing include: (1) allergic and non-allergic responses to air borne particles derived from the seafood being processed and other environmental toxins such as mold and chemicals such as exhaust fumes, as well as from direct contact with the seafood and possibly from the cleaning products; (2) musculoskeletal disorders and injuries resulting from specific job tasks, cold exposure, and psychosocial factors, and mediated by the gendered division of labour.

The literature that has dealt with fish processing workers in BC has focused on the historical origins of the harvesting and processing sector, and the gendered division of labour within the fisheries, with little mention of the OHS, or local ecological knowledge (LEK) of these workers (Newell 1993, Muszynski 1996, Guppy 1987, Stainsby 1994, Muszynski 1987). Most notably, Stainsby argues that the division of labor along gender lines in BC has been the defining feature of women fish processing workers' experiences (1994).

This thesis builds upon existing studies in that it will highlight and explore the ways social and ecological factors, such as political, economic, environmental and industry frameworks, can interact to affect health at the resource, community, occupational, and individual level. Health-related impacts can include reductions in population, employment, social support; and increased stress, substance abuse, and crime rates for fish processing workers in Prince Rupert. The thesis highlights ways that gender, race, and class mediate how the resource is managed and restructured, and the

impact the restructuring has on this community of workers. Initially the intention was to also include the Local Ecological Knowledge (LEK) of these workers, and to focus exclusively on women fish processing workers (as stated in my ethics application (see Appendix A). I chose to focus on both male and female workers due to the high response from male fish processing workers who were willing to participate in this study. I also chose to not focus on the LEK of these workers because I did not feel I had gathered enough data to adequately deal with it in this thesis.

1.2 Analytical Framework

I apply a feminist social-ecological theoretical framework in order to make sense of the current changes to fish processing work, and the causes for these changes that affect the health of these workers and their communities. A more specific analysis of how the particular social positions and categories, such as gender, education, and ethnicity, relate to fish processing workers' experiences, employment options, and health will draw on a feminist political ecological theoretical stance.

Health is defined by the World Health Organization as, “ a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. It is the extent to which an individual or group is able, on the one hand, to realize aspirations and satisfy human needs and, on the other hand to change or cope with the environment” (World Health Organization 1946). This definition of health moves beyond illness and disease and is connected to many other factors such as age, gender,

race/ethnicity, lifestyle, genetic makeup, income, housing, employment, and geographic location.

Dolan et al. (2005) provide a more comprehensive definition of health which they identify as biophysical health. Biophysical health is the maintenance of both human and biological organisms at levels that meet survival requirements, and includes quality of life as well as resilience to stress at individual and community levels (Dolan et al. 2005). Community can refer to both groups of people or systems. Communities of people usually connect based on shared values, norms or institutions, which can include geographic locations, social groups, relationships, and cultures. Community systems involve both individuals and subsystems, as well as the interactions between the two.

It is usually remote communities that are highly reliant on resources, and thus lack diversified economies that are particularly vulnerable to social-ecological restructuring (Dai and Taylor 2008). Community health is the ability of a community to contribute to and promote the health of its members, whether through social support and employment or low levels of inequality or other measures of a flourishing or diminishing community (Dolan et al. 2005). In this thesis I measure the health (or flourishing/diminishing) of the community based on interviewees' perceptions of crime rates, employment opportunities, safety, and Prince Rupert as a place to raise children and/or retire.

In applying a feminist social-ecological analysis, through a merging of concepts from a social-ecological framework with concepts from a feminist political ecological framework, I investigate how the interrelated and overlapping health concerns faced by fish processing workers are mediated by gender, race and class and are linked to broader

ecological and social factors such as stock decline, as well as to the specific economic, political, industrial and historical landscapes that shape the fishery today. Social-ecological analysis considers the “[h]ighly complex links between social and environmental restructuring and how they interact with the health of people and places” (Ommer et al. 2007, 4). It is used to investigate how policies, management, communities, industries and governments are reorganized in particular instances of restructuring; and, how implementation of restructuring initiatives may be mismatched on spatial, temporal, and, organizational scales and the related health consequences (Dolan et al. 2005, Ommer et al. 2007). A social-ecological framework in this context includes human, social, and biophysical dimensions of health. As Dolan et al. (2005) explain, this approach is interdisciplinary and recognizes the interconnected nature of human, social and environmental health.

Socio-ecological systems reflect the notion that human, community, and biophysical health are interdependent...that the resilience (or health) of a socio-ecological system is determined by both ecological and social factors...and that any understanding of health must integrate these biological and social explanations within a broader understanding of the political economy (Dolan et al. 2005, 197).

Industrial restructuring includes changes to work organization (such as deskilling and reskilling), downsizing, outsourcing, and capital flight (loss of capital to cheaper areas), as well as changes to employment structure and options, which include increased contingent, casual, flexible, and part-time labour.

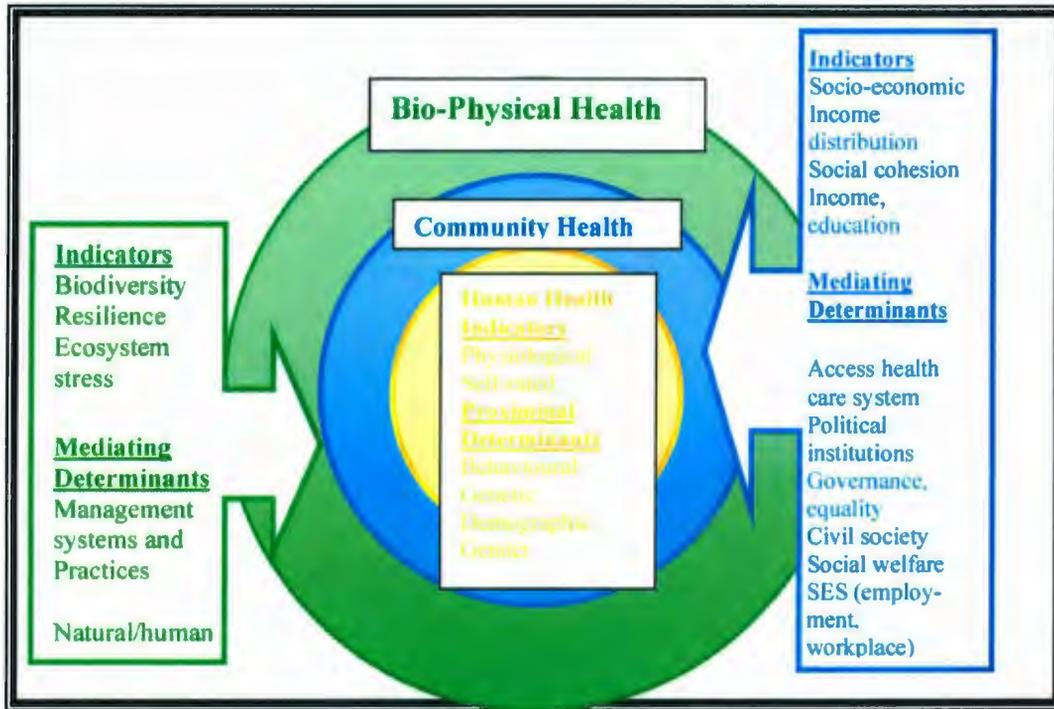


Figure 1: Social-Ecological Framework Dolan et al. 2005: 19

In this thesis I will describe how all of these changes apply to the fish processing sector in BC, including in Prince Rupert, where over the past 30 years the industry has been dominated by plant consolidation, mechanization, outsourcing of secondary processing, and changes in consumer demand. This restructuring has resulted in decreased and changing employment for these workers.

Environmental restructuring includes overharvesting of a resource, and reduced biodiversity. This thesis will show that while the BC fishery has experienced overharvesting of many of its fish and shellfish species, the overharvesting of various salmon species has had the largest impact on the fishers and fish processing workers in Prince Rupert. Global-warming and pollution from fish farms have been blamed for contributing to the stock decline (Beamish et al. 1999, Rayner and Howlett 2007).

Institutional restructuring includes changes in government policies and programs that impact trade liberation, privatization, deregulation, and changes to public services

and social programs. During the last thirty years, the ideological shift towards neo-liberalism by successive provincial governments in BC, has resulted in an increase in policies that allow for increased privatization of the resources. This has been the case especially in the fishing industry. Coinciding with this have been cuts to social programs (Grafton and Nelson 2005, Hanlon and Halseth 2005, Schwindt et al. 2003, Tamm 2002).

Social restructuring refers to urbanization, demographic change, and changes to community, gender, and generational as well as household dynamics (Neis and Grzetic 2005, Dolan et al. 2005). In this thesis I will discuss how in Prince Rupert there has been a large exodus of the population, as jobs in the fishery and forestry have become scarce. There is also a growing population of unemployed workers in the community, which has been associated with an increase in crime and substance abuse, impacting both individual households and the community as a whole. Many of the employees at the fish processing plants have been affected by, or have experienced personally, the effects of social restructuring. As well, social categories of race and gender have created uneven effects for these workers. In some cases, such as with workers whose identities are female, First Nations, or ethnic minority, the effects have been amplified.

Based on the very complex and interconnected nature of the factors that affect seafood processing, applying a social-ecological approach to the study of seafood processing in Prince Rupert will provide an inclusive lens through which to analyze the extent of the effects of restructuring on the workers' health, their safety at work and the vitality of their communities. Processing workers hold substantial knowledge of the relationship between restructuring, changes in their work and changes in their health

(Abrams 2001), and that of their communities that is tapped, in an exploratory fashion, in this thesis.

Existing research exploring social-ecological restructuring and health within fisheries has not always been done from a feminist perspective. The importance of considering gender, as well as other social categories, within the fishing industry is well documented (Harrison and Power 2005, Neis and Grzetic 2004, Neis and Williams 1997, Williams 2008, Yodanis 2000). Within this literature, it has been shown that women have a different relationship with and access to natural resources and technology, and generally have different responsibilities both at work and at home. As a result, they experience different ramifications from the restructuring of a resource-based industry like fisheries, which in turn affects their health in particular ways. Gender usually situates women and men in different places with different responsibilities in the home, in the workplace and in the community. This difference in space, in turn, contributes to the development of gendered knowledge of health and safety issues, and community health. This holds true for fish processing workers in BC where fish processing employees are predominantly women and, in this sector, women tend to do different jobs than men.

Using a gender analysis assumes that the social, political and economic contexts are themselves gendered, resulting in an uneven division of resources, wealth, and opportunity (Rocheleau et al. 1996). Women are more likely to work in processing plants than they are to harvest the fish, and women within fish processing plants generally hold lower seniority positions and make up a more flexible work force (Dolan et al. 2005).

Women processing workers are also more likely to have childcare, homecare, and community responsibilities on top of their paid work (Neis and Grzetic 2005).

The literature from Newfoundland and Labrador shows that women in fish plants have usually been among the first to be laid off, and are more likely to be hired as temporary, or casual workers. They have also been the most likely to occupy what are understood as low skill level positions with the least amount of pay (Neis and Grzetic 2005) and have, historically, been disproportionately clustered in the non-unionized and weakly unionized, seasonal plants. The implications of these patterns for women's OHS are significant. These women have faced somewhat different health risks from men and may have been less likely to report occupational health issues due to concerns that their illness might not be recognized by the compensation board, or fear that they might lose their jobs or their eligibility for Employment Insurance (Howse et al. 2006) As well, there are increased health and safety risks among new and casual labourers due to their relative inexperience with, and lack of knowledge of, the health and safety risks of the work environment and tasks (Boyd 2001; Quinlan and Mayhew 1999). These larger economic and social factors affect OHS by increasing workers' stress and anxiety levels, and placing workers in positions where they may feel they have to, or where they may be actually forced to choose between their jobs and their health. This problem has been well documented within the OHS literature (Rennie 2005; Quinlan et al. 2006; Whyte 2006).

Further, it is important to consider how quality of life and work are interrelated. When our health is being jeopardized at work, this can have a negative impact on our quality of life outside of work and vice versa (Barnett 2008). Work-related illness can

also have ramifications for family members, and even entire communities in the case of small, single-industry towns where there is a substantial burden of illness in the town's population (Leyton 2005; Rennie 2005). These issues and dynamics need to be explored in more depth for BC fish processing workers.

Gender is not the only social position that shapes one's relationships with resources and the environment. Issues of class and race, as with gender, can place individuals in different positions in the plant, and in society. Using a feminist social-ecological framework provides an inclusive lens through which to analyze these workers' realities. Feminist political ecology's insights into intersections of gender, race and class provide a framework to more deeply investigate the ways that various social positions of many fish processing workers (e.g. gender, ethnicity, and education) or combinations of these, such as would be experienced by aboriginal women fish processing workers, can influence specific experiences and relationships with natural resources and their management and production through. As Rocheleau et al. (1995, 4) state, "[f]eminist political ecology deals with the complex context in which gender interacts with class, race, culture, and national identity to shape our experience of and interests in the environment". As the majority of processing workers in Prince Rupert are of aboriginal descent or are members of ethnic minorities, this framework will be added to the social-ecological framework to examine the layers of oppressions that these workers may face. An emphasis on the specific challenges and opportunities faced by these workers is included in the analysis, as well as attention to their strong historical role in the creation of the fishing industry itself (Muszynski 1987, Newell 1993, Wilson 2005, Inhorn and

Whittle 2001). In sum, this feminist social-ecological framework provides multiple lenses through which to investigate and explore how class, race, and gender for example, have shaped processing workers' experience of the fish plant, what positions they have worked in, what risks they face, what health and safety issues are present in their work, home, and community lives, and what possibilities they have access to as the industry rapidly changes.

1.3 Methods

This thesis employs two types of data. I use statistical information from Statistics Canada and Worksafe BC, as well as in-depth interviews. Statistical data from Statistics Canada for the years between 1998 and 2008 show larger scale changes to the BC fishery, fishing industry and community associated with restructuring. The analysis presents statistics on the number of fish processing workers in the fishery; the income rates of these workers; the number of males versus females and the racial and ethnic breakdown of the labour force. It documents the significance of the processing industry to the community, the province, and the country; the different types of fish processed and the ways they are processed; and provides community statistical information on Prince Rupert, including information documenting population decline, ethnic composition, education and schooling levels, and income and un/employment rates. Statistical data on compensation claims from Worksafe BC for the years 1997-2006 are analysed to document trends in the number of reported injuries, the average age of those who reported an injury, the proportion of males and females, and well as types of injuries

reported for fish processing workers in BC. These statistical data contextualize and compliment my interview data in that they provide statistical indications of many of the issues the workers discussed, as well as help to provide a broader picture of the socio-economic realities of the fishing industry and the ramifications of its restructuring.

In depth, semi-structured interviews are the main source of data for this research project. Initial contact with the workers was made through the United Fishermen and Allied Workers Union (UFAWU). I prepared an information sheet, and emailed it to the Prince Rupert union representatives after discussing the project with them by telephone. The union then printed the information sheets and left them on the front counter for workers to pick up. They also brought some copies to meetings and left them on the tables in the lunchrooms of the fish plants. I communicated with Worksafe BC by email, and was contacted by those interested in participating, both by telephone and by email. Local health professionals and one government official, as well as another union (the United Food and Commercial Workers union (UFCW) were contacted both by telephone and email, but no interview participants resulted from these contacts. Interviews with plant workers took place in a convenient location for the participants (either in the hotel lobby where I was staying or in their homes), and childcare responsibilities were taken into consideration when scheduling the time and location of the interviews.

Eleven digitally recorded, semi-structured interviews, lasting approximately 60-90 minutes each, with voluntarily consenting workers from local fish processing plants were conducted. In addition 5 interviews with consenting informants connected to the fishing industry, such as plant managers, Work Safe BC employees, and union

representatives were also held. Interviews were conducted with 6 women and 8 men. Five of the interviewee identified as First Nations, one as Japanese, one as Eastern European, and the rest as Canadian. The average age of the interviewees was 56. This research was approved by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) at Memorial University of Newfoundland. Participation was free and voluntary, and participants were informed of their ability to stop the recording, or the interview at any time, as well as answer only what they felt comfortable with. Confidentiality was protected by the removal of identifying information from all documents, and I only use the terms fish worker, key informant, plant manager, and investigator to label the interviewees to further protect their identity (See appendix A).

Interviews with plant workers used a work history model to gain insights into changes to the industry and work over time, and included the use of two maps, a body map and a plant layout map. For processing workers, questions regarding the work history of each worker, their thoughts and experiences with occupational health and safety, any observed changes in the fish stocks linked to changes in the nature and origins of seafood species processed in the plant, as well as any observations and feelings they had about their community were asked. Each section included a maximum of three broad questions that were intended to allow the interviewee to talk at length and direct the flow of the conversation. In order for me to keep the interview on track, I had a series of prompts that I used as the conversation developed. This allowed the interview to feel more like a conversation than a test, and allowed the interviewee to discuss the issues regarding the fishing industry, their health, safety and their community they felt were of

priority. The maps were used during the discussion on OHS and helped to visualize and more specifically identify areas of concern with regard to the workers' bodies, their work environment and the resource.

In the analysis I use these interviews to explore the trends and themes about fish processing workers' lives that emerge from their knowledge of the resource, their observations about their work experiences, and OHS in their workplaces, their personal health, and how they perceive their community, both currently and in the past. The broad-based questions allowed the interviewees to discuss the changes they have experienced in their work over the course of their work histories, as well as offer explanations they might have for any changes they had experienced. These data provide insights from processing workers and others into recent changes to the industry that can be discussed alongside the information on policy and regulation changes that I acquired from Statistics Canada and the Department of Fisheries and Oceans. I also asked questions in this section on the types of seafood processed, and any changes they may have noticed through the years.

The questions regarding OHS and their work offered the participants a chance to discuss what they know and think of the OHS standards and procedures in their work environment, and the body maps provided a visual aid in identifying injuries and illness that have occurred at work, as well as away from work. In the analysis, these data are used to show how OHS standards in the workplace are understood by these workers, as well as the common injuries and illnesses they have experienced at work and away from work. They also provide insights into whether they applied for, or received

compensation for any illness or injuries that occurred on the job, as well as their reasons for not applying, or for not receiving compensation if they did apply.

The section of the interview schedule on community provided data on the changes they have experienced at the community level, and the reasons they offered for any changes experienced. I also include in my analysis whether they are male or female, whether they are a visible minority or belong to an aboriginal group, their age and the number of years they have worked in the industry. Overall, these data allow me to see how specific workers are experiencing changes to their occupation, and how these changes connect to their OHS as well as their community vitality. While I cannot draw generalizable conclusions from the interview data, I am able to better understand how these workers experience their work and OHS, and can situate my results within the larger literature, laying the foundation for more detailed future research.

I transcribed all interviews. The data from the interviews was thematically coded using NVivo8© qualitative data software. The interview data were coded using nodes and trees to help organize and show recurring patterns. Nodes were used to identify key terms such as age, race, and number of years in the industry. I used tree nodes to identify broader concepts such as OHS, the fishing industry, and community, and then had related sub sections under each broad category. For example, under the tree node OHS some of the sub categories I had were injuries, WorkSafeBC, Stress, and body maps. Research findings were detailed in a lay report for the fish processing workers and sent to the union.

I recognize that by selecting interviews as my method of data collection I am choosing to highlight the knowledge of a small group of fish processing workers, and thereby gain in depth insight and personal experience from them, but am limited in my ability to generalize from this sample and their experiences. This in depth and lived experience provides personal and nuanced information, and an opportunity for these workers to share their knowledge, understanding, and references regarding the restructuring process. This is especially important given that both women and First Nation's knowledge is underrepresented in current literature (Kirby et al. 2006). The addition of statistical data to this research process provides not only a broader scope on the research processes, but showed trends relating to the health of the fish stocks between 1998 and 2006, as well as the decrease in population and changes to the population of Prince Rupert from 2001 to 2006. Statistics from WorkSafeBC provided a larger context for injuries and diseases that were occurring in this industry in which to situate the OHS risks, injuries, and diseases that were discussed by workers and key informants. Thus the broader knowledge base of statistical data provide a more generalized knowledge of fish processing in BC, while the interview data provide more nuanced, individualized, and contextualized data. The two combined work to provide a more complete picture of the affect of restructuring on Prince Rupert fish processing workers, both identifying and filling information gaps, as well as providing personal and numeric support for the research findings.

1.4 Social Relevance and Practical Importance

This study addresses the current lack of research on fish processing workers in BC, their health and safety concerns, and the potential interactions between their occupational health and recent changes to the natural environment, in social policy and within the fishing industry.

New Scholarship. This research will contribute new scholarship regarding the links between fish processing workers' health on the one hand, and restructuring on the other. Intensive studies of the BC fish processing industry are few and far between. The last I am aware of occurred in the early 1990's. In Atlantic Canada especially, fish processing has been more widely and deeply investigated in recent years (Harrison and Power 2005, Power 2000, Messing and Reveret 1983, Lamson 1986, and Ilcan 1986, Howse et al. 2006, Neis and Grzetic 2005). The reasons for this lack of scholarship in BC are not clear, though they might be due to the smaller scale of the BC fishery in comparison to the Atlantic fishery, or a result of the "invisible" position these workers hold in the industry (Guppy 1987).

Visibility. This research is important in that it makes BC seafood processing workers' knowledge and health more visible not only to researchers but to health workers, employers, policy makers and the workers themselves. It has the potential to connect seafood processing workers – and their representatives on both coasts – with international groups like the *International Collective in Support of Fishworkers*, which provide an international support and resource base for these workers. Further, increased visibility and collaborative capacity can provide rural communities with more clout to persuade policy makers, employers and health professionals to consider potential

relationships between environmental change, industrial change and worker health and safety with direct application to rural communities.

Comparable Research. As previous large-scale studies such as *Coasts Under Stress* and *SafetyNet's* work on seafood processing occupational health and fishing safety have indicated, research on either coast can inform other locations in important ways (Howse et al. 2006, Ommer et al. 2007, Parish et al. 2007). For example, information on ergonomic risks and ergonomic solutions could be transferred to plants in other provinces, and occupational disease findings in one area can highlight the possibility for occurrences in another. In addition, it opens up the possibility of some dialogue between processing workers across the country. This transferring of data aims to improve the working conditions and safety standards of the industry, and thus the quality of life for workers.

Current Analysis. Within the last ten years there have been significant changes to the BC fish processing industry as local economies and resources continued to decline (Ommer et al. 2007). One of the changes to the fish processing industry in BC is to the model of production, with industry moving from a Fordist to post-Fordist form of production. This has serious implications for fish processing workers, as the post-Fordist model includes the creation of more expensive niche products, increased mechanization and skilled work, privatization of fish resources, deregulation of the industry and loosened relationships between work and the origin of the resources (Gislason 2004). As a result, the number of workers in plants is decreasing, the work is becoming more highly skilled but also less frequent, thus workers are increasingly depending on EI and income

assistance. Under this form of production workplaces and fish production are regulated differently, and markets are changing. The implications are potentially quite serious for the workers in the industry and for the smaller BC communities, which have already endured mass layoffs as companies have folded or moved to larger urban areas. Fish processing workers and fish harvesters have both been affected by this restructuring, but fish processing workers have largely been excluded from participating in it. As pointed out in both the Newfoundland and BC scholarship, fish processing workers hold an invisible position within the fisheries on both coasts (Grzetic 2002; Guppy 1987). The changes to the industry also affect workers differently based on their gender, race, ethnicity and class and these dynamics are understudied. This research will provide an up to date analysis of the many comprehensive and interrelated potential consequences of these ongoing changes for health.

1.5 Chapter Outline

The harvesting of fish and shellfish on both the east and west coasts of Canada has supported small rural communities for centuries; so much so that it has become integral to the cultures and communities along these coasts. On the west coast of Canada the cultural significance of fishing was and is vital to many First Nations peoples that live(d) there (Newell 1993). This thesis will argue that Prince Rupert, and specifically its fish processing workers, have been significantly impacted by social and ecological restructuring, especially as it applies to the BC fishery. The impacts have had a prominent effect on their health, including at work, home and in the community.

Chapter 2 provides a brief historical overview of the BC fishing industry. Beginning in 1871 this chapter discusses the fishing industry regulations, restrictions, policies, and importance up to the 1960's. It looks at how, over time, the industry expanded and then contracted, and the ramifications of this for many of the workers. Changes to labour in processing plants that were shaped by Canadian social policies, and world events such as WWI and WWII are detailed. This overview provides the historical context for the recent fishery, explaining the cultural and/or economic importance of the industry to specific groups of people, such as women, First Nations, and ethnic minorities, as well as providing an historical look at the management and organization of the BC fishery, the BC fish processing industry and the processing plants in Prince Rupert.

Chapter 3 provides an overview of the major changes to the BC fishery, including the processing industry in BC and Prince Rupert from 1980 until 2008. It frames this overview within a social-ecological framework, examining the institutional, environmental, industrial and social restructuring of the BC and Prince Rupert fisheries and community. Discussed is institutional restructuring, including major policy changes affecting those who work in the BC fishing industry, such as the Mifflin Plan and cutbacks to the Employment Insurance program. Next, environmental restructuring as it relates to the BC fish stocks is examined with discussion centered on the impacts of global warming, aquaculture and fishing methods and their relation to stock decline. This discussion is followed by an exploration of industrial restructuring with a detailed discussion of the fish processing industry, especially the four fish plants in Prince Rupert: J.S. McMillan, Oceans, Oceanside and Seal Cove. The final section in this chapter

focuses on how these larger restructuring processes have contributed to the social restructuring of Prince Rupert. Gender, race, and class within these fish plants are discussed using a feminist political ecological framework, which situates these social positions within political and ecological systems to show how access to resources, employment, and social services are mediated by gender, race, and class.

Chapter 4 discusses three levels of health: occupational, individual, and community. Using the social-ecological framework, this chapter employs interview data and WorkSafeBC data, to explore how fish processing workers in Prince Rupert experienced and discussed their health in these three areas. Special attention to gender, race, ethnicity, as well as socio-economic conditions in Prince Rupert helps with an exploration of the restructuring processes and their consequences for the health of these workers at work, home, and in Prince Rupert. I argue that the health of fish processing workers, both at work and at home have been negatively affected by the restructuring processes, and that the affects have contributed to a decrease in the health of the community.

Chapter 5 is the concluding chapter in which I summarize the main findings concerning the impacts of social-ecological restructuring on fish processing workers and their health in Prince Rupert. Given the vulnerability of these workers to the current economic climate, I discuss how these workers may be further impacted by changes that have occurred since I completed my research. Finally I provide suggestions for future research to better understand social-ecological restructuring and fish processing workers in BC.

Chapter 2 History of the BC fishing Industry 1871-1970

The historical context of Northern BC is important to understand, as its history has influenced the current social-ecological state of Prince Rupert, and the BC fishery. The restructuring process in BC has been occurring slowly over the last fifty years, but has intensified in the last twenty to thirty years, with more severe impacts in that time period. In this chapter I review some of the major changes to the fish processing industry, including fish processing in Prince Rupert, specifically in terms of its labour compositions, regulation and governance, environmental and stock health, and shifts in technological changes and harvested stock. While detailed, this historical overview is important to include as it provides context for the significance of the fishing industry to communities, both geographic and cultural, and helps to imbue the serious impact restructuring has had on these workers, this industry, and this community. By providing a strong historical context, ties to place and work can be better understood, and thus impacts on health at all levels.

A pre-commercial fishery existed in British Columbia before the commercial fishery was established. Along the coast of British Columbia, First Nations fished for food, ceremony, and trade, for thousands of years while supporting a population in the tens of thousands before contact with Europeans. Thus for First Nation's peoples in BC, fishing and processing has always been practiced, and have been tightly connected to their world views and beliefs (Weinstein 2000, Harris 2001)¹. While a small scale

¹ For detailed information on the aboriginal fishery see Weinstein (2000), McDonald (1994) or Harris (2001).

industry existed after contact that shipped salted salmon abroad, it was not until after Canada's confederation and the invention of canning technology that the salmon industry began to increase in economic and social significance. The ability to can food, coupled with a growing need for cheap protein sources for the masse of workers of the British industrial revolution and the abundance of salmon in British Columbia, made fish processing an attractive lucrative business prospect.

2.1 1871-1900

The geographic area that the BC fishery encompasses is the entire oceanfront between the 49th and 55th parallels, which includes the coast between Alaska and Washington State. The first canning factory opened in BC in 1871, the same year that British Columbia signed the Terms of Union, and became a province of Canada (Newell 1993). By 1878, there were twelve canneries along the Fraser River and five more, further north, near the openings of the Skeena and Nass Rivers. When the fishery first began only sockeye salmon was caught, but the industry slowly grew to include all species of salmon, and eventually many other types of fish, especially halibut, and shellfish. When the salmon fishery began, much of the catch was often dumped overboard due to an overabundance as opposed to a lack of fish as is the case today. The season was short and lasted only about six weeks (Newell 1993).

The canning industry (now known as the processing industry) is made up of two sets of workers: the fishers who bring the fish in to be canned or processed, and the

shoreworkers² who can or process the fish. The BC fishing industry has its roots in cheap, and vulnerable labour, which included low pay, unpleasant working conditions, and seasonal work. In the beginning it was Chinese men and Native women who worked in the canneries. Contractors, who at times hired entire crews to work in the canneries, brought over Chinese men or hired entire Native villages, usually Ts'msyen and Gitxaala, but also Nisga'a, Gitksan, as well as other First Nations, to fill these positions (Menzies and Butler 2008).

Although Chinese men and First Nations women worked together in the canneries, they never worked the same jobs in the plants. Chinese immigrant men made up the core of the labour force between 1870 and 1900. They were responsible for running the machinery, doing the heavy labour jobs in the plants, and making and labeling the cans. Brought over by contractors, these workers were indentured laborers, who, like most indentured workers, very rarely paid off their debts. This was due to the seasonal nature of the work, which meant they were dependant on their contractors to hold them over between seasons, and due to their lack of English, which made it very difficult for them to find other work (Muszynski 1987).

While Chinese men were in charge of running the machinery and performing the heavy labour, Aboriginal women provided cheap, flexible labour to help process the fish. In the early years of the industry whole First Nations villages would relocate to the plants during the fish run. The men would fish for the cannery while women, and sometimes

² In BC these workers were, and still are, called shoreworkers, and include those who work in the processing plants, those who unload the boats, as well as mend and make nets. In this thesis I have chosen to use the term fish processing workers, as I am focusing more specifically on those workers working in the fish plants. In some of the interviews and quotes the interviewees use the term shoreworkers to refer to fish processing workers.

children, would work in the plants filling cans, filleting, cleaning the fish, and mending the nets. Older men and women would look after the children. Payment for work was given either to the female head of a village, or paid through the Chinese contractor, who hired the First Nations village (Muszynski 1987). Then, First Nations villages (that relocated to cannery plants) depended on the industry for economic stability, and early on, cannery work fit well with their other economic activities.

The Canadian federal government was responsible for all aspects of the BC fishery when BC joined Canada, under the 1868 Fisheries Act of Canada. When regulations were imposed they set limitations on gear, fishing times, and fishing locations. The first regulations imposed were the banning of fish wheels and traps. Only gillnetting and seining were allowed, although gillnetting was the predominant form of gear employed in the beginning (Newell 1993).³

In 1888 licenses became required in an attempt to preserve and increase estuary and river fisheries while also providing conservation measures. Licensing also provided a means to regulate when, where, how and who was allowed and not allowed to fish, as at this time conflicts were occurring, and the fishery began to be divided along racial lines⁴ (Newell 1993). Fishing licenses were initially issued based on a set number per cannery resulting in an increased number of canneries, as owners tried to attain more licenses. This led to an increase in the number of fishers, as they were hired by canneries, as well as an increase in stress on the resource. To solve the issue of overcrowding and over

³ See Newell (1993) for descriptions of vessel and gear types.

⁴ Newell (1993), in her book, *Tangled Webs of History*, discusses how First Nations were actively disadvantaged in the fishery, and were limited by not only number of licenses they could buy, but also access to gear and vessels. Harris (2001), in *Fish Law and Colonialism* provides a good discussion of this as well.

fishing, the Wilmot Commission was initiated. Based on its recommendations, licenses were no longer restricted, but the licensing of who could fish, as well as fishers' gear, areas and time periods began to be regulated by the federal government (Newell 1993).

Also, at this time racist policies began to be implemented. The implementation of the Native food fishery in 1888⁵ resulted in a restriction on First Nation's groups along the coast of BC to fish for food and ceremonial purposes only, and therefore they could no longer gain economic benefit from this traditional economic means. Due to the Native food fishery regulations, First Nations involvement in the salmon fishery began to decline in all aspects. Although First Nations were being pushed out of the fishing industry and being replaced by both white and Japanese fishers, the demand for cheap female labour in the canneries remained constant (Newell 1993).

By 1891 the commercial fishing industry, along with forestry and sealing, replaced the fur trade and gold mining in economic prosperity, and it made up 85 percent of provincial exports (Muszynski 1987). At the same time an economic shift occurred when Victoria lost its position to Vancouver as the economic hub in British Columbia. This led to an increase in prosperity for salmon cannery owners, who were now able to incorporate, and through accessing more funds from larger eastern Canadian banks that had branches in Vancouver, become more financially independent from principal agent shareholders (Muszynski 1987).

⁵ The Native food fishery was called the "Home Consumptions of Fish by the Indians of British Columbia, exclusive of European supply" and was later formalized as the Native food fishery in 1888. It was through the process of regulating the Native fishery that First Nation peoples were alienated from control of their own economic systems, and the Native food fishery would over time be subjected to restrictions on when, where, how and how much salmon they could catch. The result for the First Nations was a loss of autonomy in governing a resource that was the backbone of their social and economic systems (Harris 2001, 25).

Once companies became independent there was a race to control the industry. The first attempt was made by The Anglo-British Columbia Packing Company (The ABC Company), which bought out 11 competing companies and became the largest producer of sockeye salmon in the world. Mergers following this one included the creation of the British Columbia Canning Company, and the Victoria Canning Company of British Columbia Limited Liability. By 1891 there were five major companies running canneries along the coast of BC (McMullan 1987).

The reasons for trying to achieve a monopoly grew out of the regulations that were imposed after the Fraser River became flooded by fishers and canneries. Between 1889 and 1891 licenses were required and limited to 500 on the Fraser River, with each cannery receiving 20. Due to resistance from both canneries and fishers the restriction of licenses was abolished in 1892.

2.2 1900-1945

The regulation of the fishing industry became more prominent at the beginning of the twentieth century when the BC Fishery was booming. In 1905, it was the largest industry in Canada. Within the United States, canneries as well as communities were growing rapidly and Canada could not compete with the low prices and high demand. As a result, the market in Britain became vital to the BC canning industry. Following the lifting of license limits, the industry retook its pre-merger form of multiple small canneries until 1902, when The British Columbia Packers' Association of New Jersey (BC Packers) was created. Subsequently one third of the plants were closed. BC Packers

took the lead in terms of modernizing its plants, placing the machinery from closed plants into the still open ones, thus creating a number of “lines” for production in the plant (Muszynski 1987).

By 1914 cannery operations had spread to every corner of the Northwest coast, including Prince Rupert⁶, which had incorporated as a city in 1910. Their original market was in the United Kingdom where there was a high demand for sockeye salmon. As new markets opened up, pink and chum salmon also became highly desired, and thus heavily exploited (Newell 1993). Also at this time a key shift in transportation occurred. The completion of the transcontinental railways in both Canada and US resulted in cheaper shipping rates for US travel by rail.

In WWI, and the depression that followed, inflated prices and market demand encouraged new entries into the canning industry, and BC Packers lost its dominant position (Muszynski 1987). The fishing industry became less lucrative. As well, due to intense fishing throughout World War I, and negative effects on salmon spawning grounds from pollution and other resource industries, such as logging, hydro-electric dams, landfill projects and mining, salmon stocks began a steady decline from which they have never recovered.

Significant changes occurred within the fishing industry during the late 1920s and early 1930s. New technological changes occurred that affected both the fishing sector and the canning industries (Newell 1993). Sockeye salmon were no longer the leading species, with pink and chum taking its place. Although gillnetting remained the most

⁶ I would have liked to have included a more detailed early history of Prince Rupert, but found that there was a significant gap in the scholarly literature on its history.

common gear for fishing, purse seining and trolling grew exponentially in step with an expanding chum and pink salmon fishery (Newell 1993). Gillnetting increased by 53 percent, salmon trolling by 99 percent and salmon purse seine by 128 percent (Newell 1993).

The shift in fishing vessel gear during this period was significant to the health of fish stocks, as seiners were 6 times more productive than gillnetters. The landing capacity increased as new technology enhanced the fishing power of these vessels. Although there were numerous technological changes at this time, the Federal government did little to regulate them. The results of these technological changes included an increase in the range, mobility, efficiency, and numbers of fishing vessels. The technological changes in fishing also had a significant effect on the canning industry, through increasing its production (Muszynski 1987).

During this time “Anti-Oriental” sentiments in Canada spilled over into the fishing industry, and shaped the regulations that the Department of Fisheries and Oceans⁷ (DFO) introduced. In 1922, the DFO restricted new licenses for the fishery to European and Aboriginal industrial fishers only, and as a matter of policy no Japanese fishers were allowed seining licenses. The Fisheries Commission of 1922 recommended a 40 percent decrease in “oriental” licenses. Chinese male workers were slowly squeezed out of the canneries by two simultaneous actions. The first was the Chinese Immigration Act, which ended the influx of Chinese workers entering the cannery labour market. The second was the new technology that resulted in machinery that could now do the jobs

⁷At this time it was called the Department of Marine and Fisheries and subsequently went through many name and department changes until becoming the Department of Fisheries and Oceans in 1979.

previously performed by the Chinese workers. The first machine invented was called the “iron chink” for this reason, although it is now referred to as the iron butcher. Its two operators could replace up to 51 Chinese butchers. It also increased both the speed of the lines and overall productivity of the plants. As new machinery was introduced, new skilled laborers were hired to fix the machines. These mechanics were mostly of European descent. Some of this racist policy was alleviated in 1929 due to a loss in court. The Federal government lost its rights to manage the processing and canning industries, and with it the right to remove Japanese fishers from the Industry.⁸ What happened to fish once they were caught was transferred to provincial jurisdiction.

The organization of labour within plants, which had been divided along lines of gender and race, began to change. The proportion of female workers in plants increased replacing the decreasing numbers of Chinese men. As aging Chinese workers retired, Native and a small number of Japanese women replaced them, while as plant operations began to centralize in urban centers such as Steveston and Prince Rupert, other newly immigrated women who spoke little English and a small number of European Canadian women filled their places. This resulted in new groups of workers entering the plants (Muszynski 1987). The high numbers of available workers created a highly competitive industry, and canneries actively sought to get the lowest wage possible through contractors.

⁸ The court case was Rex vs. Somerville, in which the Federal government lost both its rights to regulate the fish processing and canning industries and to eliminate Japanese fishers from the Fishery (Newell 1993).

The consolidation and urban centralization that began after the boom and subsequent expansion of the industry, in the beginning of the century did not stop except during the inter-war period, when false markets⁹ were created. The consequences of centralization of the canneries included the loss of plant jobs and elimination of small-scale local fishers, who were not able to keep up with the rising costs of gear and vessels. The large investments in vessels and gear, combined with the decrease in salmon stocks, resulted in higher prices for fish (Newell 1993).

During the Second World War, BC canneries worked 'full tilt' as they were a protected wartime industry. Also at this time record salmon packs were being produced, with 2 million cases being exported annually from over 50 canneries (Newell 1993).

The technological advances that were made during and after WWII amplified the pressure on the stocks, as vessels increased their ability to catch more fish, and fish stocks continued to decline. Further exasperating this depletion of stocks was a new ideological shift regarding resource management and common property approaches that occurred after WWII. By the end of WWII, female employment in the fisheries began to drop (Muszynski 1987). At this time unions began to form, and were successful in gaining wage increases and improving working conditions.

⁹ False markets refer to the government protection of the processing industry that occurred during the period between the two world wars ensuring it was sheltered from the economic hardship of that time (Muszynski 1987 57).

2.3 1945-1970

Unions, such as the United Fisherman and Allied Workers Union (UFAWU), were successfully organized in the fishing and processing industry during and after WWII, along with fishing co-ops, such as the Native Brotherhood, and the Prince Rupert Fisherman's Co-op (Menzies 2001). These unions and co-ops were created as a result of consolidation and centralization of plants in remote areas resulted in First Nations being pushed out of the industry through economic disadvantage, outright racial regulations, and loss of employment in canneries due to relocation. Prince Rupert, the hub of the fishing industry during the first half of the twentieth century, had strong (described by some as 'militant') union members (Muszynski 1987).

Unions, associations, and co-ops were formed primarily to gain some security for labourers, and to advocate for their rights. The UFAWU and the Native Brotherhood worked together to combat discrimination against First Nations in the industry (Muszynski 1987). Large-scale strikes in 1967, 1973 and 1989 improved working conditions and wages. Original company labour contracts that paid piece rates were thrown out, and workers gained both job security and equitable wages for the casual workers, a majority of whom were women (Newell 1993). As well, during the fifties shoreworkers gained access to social legislation (Workmen's Compensation, Unemployment Insurance, and Welfare)¹⁰

The first major era of development occurred in the 1950s and 1960s in BC. During this time the social credit party was led by W.A.C. Bennett. This party

¹⁰ These social legislations are now called respectively; WorkSafeBC, Employment Insurance, and Employment and Assistance Program.

maintained power throughout the next 25 - 30 year economic and community boom in Northern BC. The approach to public policy under this government was an industrial resource model, which was heavily reliant on resources to support local infrastructure and communities (Markey et al. 2009). During this time there was a continual migration of young workers and families into northern communities, where fishing, mining and forestry industries were booming. While the fishing industry was experiencing a boom, the stocks themselves were declining, and at this time the BC government began to focus on the declining fish stocks.

In 1955, the Skeena Salmon Management Committee was established and began more seriously regulating both sockeye and pink salmon stocks. In 1962, The International North Pacific Fisheries Commission, with members from Canada, the United States, and Japan, reported that the Skeena salmon run had reached its limit, and was in danger of collapse. In the same year the commercial reduction fishery closed, and the herring fishery was in danger of collapsing. 1965 marked the worst year for pink salmon in the history of the fishery (Wright 2008). Along the entire coast stocks were declining and at risk for collapse due to the over fishing that had been occurring. This resulted in two new policy developments aimed at addressing both the problem of too many fishers and the resulting over fishing of the stocks: the Sinclair report of 1960¹¹ which became the basis for the Davis plan in 1968.

The Davis Plan, a salmon license control plan, limited entry to fisheries in an effort to reduce production costs and create an economic surplus. It was to be

¹¹ This was titled, *Licence Limitations – British Columbia: A Method of Economic Fisheries Management*. Ottawa, Department of Fisheries and Oceans, and was written by Sol Sinclair in 1960.

implemented in four phases. The first phase licensed only those fishers who demonstrated a dependence on the salmon fishery. The second phase involved buying out and retiring excess vessels. The third phase improved vessel standards and product quality. The last phase, which was never implemented, was to introduce regulation that would be geared to economically improving the fishing effort of the reduced fleet (McMullan 1987). The results included the narrowing of vessel types to seine, gillnet, troll and gillnet/troll combo vessels. While entry to the fishery was limited, overcapitalization or capital stuffing was done among those who were left in the industry, through purchasing new boats and updating equipment with the latest technology. While the Davis Plan served to further push out aboriginal and small scale fishers, the fishery remained relatively stable, as salmon prices increased in the 1970s, and environmental conditions improved for some stocks, such as herring (Gislason 2005, Schwindt et al. 2003). Also two new fisheries began at this time, the herring roe fishery (1972) and the geoduck fishery (1976).

The strength of the fish processing unions has directly impacted the ability of those in the fishing industry to have their demands met. While women did not gain equal pay for equal work during this time, the UFAWU strike of 1973 helped to narrow the pay gap significantly, and BC fish processing workers became among the highest paid workers in the primary food industry, and the highest paid fish processing workers in Canada (Muszynski 1987, Stainsby 1991).

With the subsequent restructuring of the fishery industry, divisions between fishers, and fish processing workers, as well as within these two groups, began to

increase, reducing the strength of the unions, a process that was further hastened by the overall decrease in employment opportunities in the industry.

2.4 Summary

The number of canneries along the coast of British Columbia has historically multiplied or contracted based on a number of factors including global markets, false markets created by the two world wars, government regulation, technological change, and privatization. Fish processors have played a dominant role in the fisheries, as their interests were being served through government regulation. The dominant role of the processing plants in the industry, in turn, has had a spiral effect on all other aspects of the fishery. Newell (1993) states:

Myths of public regulation of economic activity in industrial societies include ideas that 'regulations' are forced on unwilling producers, or are created simply to increase economic efficiency, and that they are developed by 'arm's length' experts, or mainly involve technical questions that are of little interest and relevance to the public. In practice, government policies and regulations usually are responses to pressure from industry to reduce competition and frequently are not in the best interest of the other user groups, although the process by which this one-sidedness occurs may be gradual (6).

The pressure by the canning industry, on both the provincial and federal government regulation, made the government's roles both as manager and as conservationist somewhat contradictory, and the latter seems to have been compromised. The governments also held a gate-keeping role, saying who could access and benefit from the fishery, and who could not. Technological changes that impacted the fishery, such as larger, more expensive boats, and more mechanized and costly gear, also affected the

canning industry. The increased efficiency of the fleet was coupled with new refrigeration technology, which resulted not only in an opening of the market to domestic demand, but also contributed to the centralization of processors in the urban areas of Vancouver, Steveston, and Prince Rupert and related closing of canneries in remote areas (Muszynski 1987). The ability of fishing vessels to catch larger amounts of fish and store them on the vessel allowed fishers to not only increase the area they fished in, but also drop off the fish in the central urban locations mentioned above. Government regulation played a role in this process because it did not regulate or try to limit the privatization of, and increase in, new technology. It also consistently gave licenses to Caucasian European fishers over Japanese and Aboriginal fishers, who were both at an economic disadvantage in the first place. This effectively pitted fishers against each other based on race, and created advantages for some at the expense of others. The gendered division of labour still exists today, although this too is gradually changing.

This chapter provided a brief overview of the history of the BC fishing and fish processing industry in the late nineteenth century and first half of the twentieth century. It also illustrates how complex and interrelated processes, such as government policy, environmental health, industry aims, economic conditions, unions, as well as other important social factors such as race and gender have all played a major role in shaping the history of the BC processing industry. The next chapter focuses more specifically on the social, ecological, industrial, and institutional restructuring that occurred in the last half of the twentieth century, and the first decade of the twentyfirst, and looks specifically at the ramifications of these changes for processing workers in Prince Rupert.

Chapter 3: Social-Ecological Restructuring of the BC fishery 1980-2008

This chapter focuses on the restructuring of the BC fishery between 1980 and 2008 with a particular focus on the processing sector. I discuss how the restructuring process has affected fish processing workers working in the fish plants in Prince Rupert specifically, and affected northern fishing communities generally. I draw on statistical data as well as interview data to show how social-ecological restructuring has affected the larger community and geographical area, as well as individual plant workers. The analysis shows how Prince Rupert fish processing workers have experienced significant restructuring on multiple levels, and that this restructuring has been mediated by gender, race and class. A social-ecological framework is used to both frame my discussion and understand the restructuring process (Dolan et al. 2005, Ommer et al. 2007). This theoretical framework requires taking into consideration multiple types of restructuring as well as multiple aspects of health, and is a way of understanding the interactions between communities, individuals, and the politics, industries, environments, and societies that shape their realities. While I am looking at restructuring from a single profession within a single industry (fish processing workers within the BC fishery), I am attempting to look at the broad range of factors that affect these workers' lives, as these multiple factors interact and affect one another in various ways (see Figure 1 in Chapter 1).

As explained in Chapter 1, social-ecological restructuring includes four different aspects or dimensions: industrial, environmental, institutional, and social. Industrial restructuring includes changes to work organization (such as deskilling and reskilling),

downsizing, outsourcing, and capital flight (loss of capital to cheaper areas), as well as changes to employment structure and options, which include increased contingent, casual, flexible, and part-time labour. Environmental restructuring includes overharvesting of a resource, and reduced biodiversity. Institutional restructuring includes changes in government policies and programs that impact trade liberation, privatization, deregulation, and changes to public services and social programs. Social restructuring refers to urbanization, demographic change, and changes to community, gender, and generational as well as household dynamics (Neis and Grzetic 2005, Dolan et al. 2005).

In this chapter, my discussion begins with an overview description of the community of Prince Rupert to contextualize the conversation that follows on social-ecological restructuring. Next I examine the institutional changes in the BC fishery that have occurred over the last thirty years, the environmental restructuring that is relevant to the BC fishing industry, and the industrial restructuring of the fish processing industry in BC, with a particular focus on Prince Rupert. I end this chapter with a discussion of the social restructuring that has occurred in Prince Rupert and show how the community has been negatively impacted by the loss of work, decrease in population, and subsequent decrease in economic and social vitality of the community. The effects of each type of restructuring on health at the individual, work and community level will be discussed in detail in the next chapter.

3.1 Prince Rupert

BC has one of the highest numbers of single industry towns in Canada due to its diverse and abundant natural resources, such as forestry and fishing, which have allowed individual towns to grow around a single staple (Barnes et al. 2001). Prince Rupert is a historical, as well as contemporary, fishing community. While it was created as a fishing town, over time it diversified into forestry and mining as well. It also has had a port that recently has been developed to receive large cargo containers from overseas, relieving the overfilled cargo ports of Vancouver and Seattle.

Much of the institutional, industrial and environmental restructuring that has occurred in BC in recent years has had a significant impact in Prince Rupert. The community of Prince Rupert, like many Northern BC towns, experienced significant population loss starting in the 1990's. This was directly linked to the industrial and institutional restructuring of the fishing industry, which was spurred on by concerns over the health of the fish stocks, specifically the Sockeye and Coho salmon species. Prince Rupert was named the 8th fastest declining community in BC in 2002, with a population decline of 12.4 percent between 1996 and 2001 (Tamm 2002). The population continued to decrease by another 12.5 percent by 2006 (Statistics Canada 2006) (See Table 1).

Table 1: Population Change Prince Rupert 1996 -2006

	1996	2001	2006
Population Of Prince Rupert	16, 714	14, 643	12,815

(Statistics Canada Census Data: Community Profiles 2006)

The population breakdown by ethnicity and First Nations has changed as well. Most notably is the decrease in the Southeast Asian population in Prince Rupert; a large majority of this population worked in the fish plants (see Table 2).

Table 2: Prince Rupert Ethnic Population 2006

Ethnicities	1,360	Percentage Change since 2001	
		Total	16
South Asian	535		-1.8
Chinese	285		3.6
Black	50		42.9
Filipino	185		-27.5
Southeast Asian	20		-43.7
Latin American	0		-100.0

(Statistics Canada Census Data: Community Profiles 2006)

While there was only a slight increase in the First Nations populations between 2001 and 2006 (0.8), the decrease in the population of non-First Nations people means that First Nations populations make up a much larger proportion of the community today (see Table 3).

Table 3: Prince Rupert - City First Nations Population 2006

Aboriginal Population	Total 2006	Male	Female	Total 2001	% change
Total Aboriginal and Non-Aboriginal identity Population	12,755	6335	6420	14,643	-12.5
Aboriginal Identity Population	4,660	1980	2500	4,625	0.8
Non-Aboriginal Identity Population	8,155	4355	3925	10,677	-23.6

(Statistics Canada Census Data: Community Profile 2006)

Not only has the local population decreased, but property values have also dropped, while at the same time rent and mortgage payments have increased (see Table

4). This drop in property values and increase in rental/mortgage payments has likely had economic and social impacts for those living in Prince Rupert, as their cost of living will have increased whether they are renting or own a home. The impact of this change will be greatest for those who are working less or not at all – which is the case for many fish processing workers.

Table 4 Values and Costs of Housing in Prince Rupert 1996-2001

	1996	2001
Average Value	\$146,218	\$120,461
Average Gross Rent	\$605	\$619
Rent >= 30% of income	38%	43%
Average owners' payments (monthly)	\$779	\$894
Mortgage payments >= 30% of income	12%	15%

(Statistics Canada Census Data: Community Profile 2001)

For fishers and fish plant workers living on First Nations reserves, their property has no market value at all because they can't sell it. The lack of capital available to fishers in Prince Rupert played a decisive role in the number of fishers in the northern areas who decided to sell their licenses rather than buy them when the Davis Plan was implemented. Most have ended up unemployed, living in an economically depressed fishing community (UFAWU-CAW 2008).

With the loss of resource-based jobs in Prince Rupert, there has been an increase in efforts to promote service sector jobs, as well as some optimism that the new port will provide employment opportunities for many of the residents. Instead, the decrease in economic stimulus from resource industries has eroded not only basic income, but non-basic income as well, negatively impacting parts of the service sector, such as retail outlets, restaurants, entertainment, etc., a majority of which rely on the community for

business and their profits (Tamm 2002). While increasing globalization, market downturns, and limited resources have contributed to the current state of the BC fishery, and that of its rural and coastal communities, neo-liberal policies led by government and industry may have had the most impact. Tamm (2002) states,

[t]o conclude that the economic decline in and population exodus from the coast is an inevitable, unstoppable trend resulting from international economic forces beyond our control would be a gross oversimplification and highly misleading. The common property or Crown-owned nature of Pacific fisheries and forests has meant that communities are more likely to thrive or falter at the hands of bureaucrats than by the so-called “hidden hand” of the market...In other words it's not so much economic determinism – globalization, post-industrial transition, urbanization – that will determine the future of coastal communities as it is our own conscious, willful choices about who should own, manage, harvest and benefit from the billions of dollars of natural resources on the coast” (16).

The hope that was fostered by the hype surrounding the enlarging of the port has disintegrated, as very few employment opportunities have materialized. Those that have require not only educational degrees, diplomas, or certificates, but also require applicants to write and pass exams. These requirements contribute to the exclusion of many of the fish processing workers (but not all) who have lost jobs from these jobs, as most had worked in the fish plants since high school, and many left high school without completing to work in the plants (Stainsby 1996). Of the 11 fish processing workers I interviewed, two were also picking up shifts at the port. Both of these male workers were maintaining year-round employment at the fish plants doing mechanical repairs and tuning, and had acquired certificates at community college in trade-related areas.

There is a general sense of unease and unhappiness in the community of Prince Rupert. Findings of research done in the community comparing it to three other

resource-based towns in BC (Port Hardy, Ucluelet, and Tofino) showed that among those who participated in the study, those living in Prince Rupert had the highest ratings for life as somewhat/much more stressful, and for identifying alcohol, drug use, family violence, unemployment and sexual abuse as a problem in the community (Dai and Taylor 2008). Dai and Taylor (2008) concluded in their study that Port Hardy and Prince Rupert were the most severely impacted by restructuring.

3.2 Institutional Restructuring

While the first era of development occurred in the 1950s and 1960's in BC, a second era of development occurred during the 1980's and 1990's in Northern BC and consisted of considerable social, industrial, political, and environmental restructuring in almost all of the resource industries. An economic recession in the 1990's had a significant impact on the resource dependent north, including Prince Rupert.

On the industrial scale in the fishery, restructuring resulted in a shift from a Fordist model of production, which linked industry with government and labour, to a post-Fordist model of production (Markey et al. 2009). The Fordist model of production in BC was labeled by Jenson (1989), as *Permeable Fordism* in that it had traditional Fordist characteristics, but these were combined with a dependency on the wider international and American economies for capital, technology, and markets. Both Fordist and post-Fordist models include increased mechanization and factories. They differ in their production goals and their method of production in that, for example, post-Fordist models of production increase flexibility in workers' responsibilities and work stations

resulting in multiple job tasks and responsibilities. The Fordist model is generally associated with assembly line production, where one person stands in the same position and repeats the same action for their entire workday. In this model of production, raw material enters the plant and a finished product exits it. The aim of this model of production is to process mass amounts of a cheap, standardized product. A post-Fordist model of production differs in that it begins with a raw product, but will have many different parts of the production occur wherever labour and supply costs are cheapest and is associated with the production of a richer variety of products for 'niche' markets. The shift to post-Fordism is encouraged by cheap transportation costs, coupled with government policies that make it easy for industries to capitalize on cheap labour, often in developing countries. The product aim of a post-Fordist model of production is not usually massive amounts of cheap product, but an increasing amount of a high-quality, and therefore high-priced, and more diversified product line (Barndt 2002).

As resource-dependent industries in BC began to shift towards post-Fordist models of production, companies began to lose their paternal roles in the lives of the communities and the workers. This shift was associated with political and social restructuring in resource-based communities (Hanlon and Halseth 2005). Government policies and regulations have, from the start, favored industries' economic aims, as discussed in the previous chapter. Governing the province during the 1980's for the second time was the Social Credit Party under the leadership of W.A.C Bennett's son, Bill Bennett, followed by Bill Vander Zalm. The political aims of the Social Credit Party generally mirrored economic political trends both at the national level (with Prime

Minister Mulroney leading the federal Progressive Conservative government), and International level (with President Ronald Reagan in the United States, and Prime Minister Margaret Thatcher in the United Kingdom). During this time, neo-liberalism¹² began to emerge as a dominant ideology in government as was evident in the BC policies regarding resources, which began to allow easier movement of resources and processing outside of the geographic regions in which they were harvested (Hanlon and Halseth 2005). Neo-liberal policies complimented post-Fordist models of production. As a result, Northern communities began to see declining populations for the first time. New and young workers were vulnerable because of their low positions on the seniority lists, and it was this demographic of the population that left the Northern regions first (Hanlon and Halseth 2005).

Policies relating to the fishery

While a small reduction in the fishing fleet had occurred under the Davis Plan in 1968, this was offset by the capital stuffing which increased the fishing power of the fleets, thus there was still considerable concern for the health of the salmon stock, as well as the viability of the fishery due to the sharp decrease in landed values between 1978 and 1983 (Schwindt et al. 2003).

The Royal Commission on Pacific Fisheries, also called the Pearce Commission, was conducted in the early 1980's. In the published report, it was identified that although

¹² Neo-liberalism refers to a political ideology that focuses on classic liberal economic and conservative social policies that result in cuts to social spending and programs as well as converting publicly owned property into private property (Harrison and Power 2005, Peck 2001). See Peck (2001) for a more detailed discussion.

the size of the catch had remained generally stable in the previous fifty years, there had been a dramatic increase in the cost of harvesting, coupled with decreasing stocks over this time period (Schwindt et al. 2003). The report had two main recommendations: 1) maximize rationalization in the fishing fleets and processing sector; and, 2) impose a property rights-based licensing system which gives fishers and fishing companies an Individual Transferable Quota (ITQ) (Tamm 2002). Due to strong opposition from fishers, only license buybacks were introduced in 1981. In a move that differed from the Davis Plan, the government bought back licenses, not vessels, but only 26 licenses (from about 4,500) were removed (Grafton and Nelson 2005, Schwindt et al. 2003).

In 1990, a significant drop in the value and quantity of fish landed resulted in the introduction of a variety of policies. In 1991, a two-year pilot project was launched that instituted Individual Vessel Quotas (IVQs) for the halibut fishery, which had previously been a derby, or open fishery. The IVQ system allocated individual portions of the total allowable catch (TAC) to vessel owners (Casey et al. 1995). After the two-year trial period, it became a temporarily transferable quota system then, in 1999, it was permanently switched to an Individual Transfer Quota system (ITQ) (Pinkerton and Edwards 2009). Overall, between 1991 and 1999, ITQ's were applied to 22 species and one species group, which expanded in 2002 to include both big skate and long nose skate. In 2005, a joint agreement was reached between DFO and 50 percent of the area F Harvest Committee Members (Troll fishers) to run a demonstration ITQ fishery for

Chinook¹³ salmon only (Branch et al. 2006, UFAWU 2007). Currently there is pressure by the DFO to introduce ITQs into the rest of the salmon fishery.

Since the introduction of ITQs in 1991, there has been an obvious decrease in the number of fishing vessels in BC. For example the Sablefish quota fishery dropped from 41 vessels in 1981 to 27 in 2000. The halibut quota fishery dropped from 443 vessels to 294 in 1991, and the groundfish trawl fishery dropped from 115 vessels to 80 in 1998 (Tamm 2002).

Around the same time that the ITQ pilot was starting, the Aboriginal Fishing Strategy was introduced in 1992. The aim of this policy was to address both treaty obligations as well as the lack of economic opportunities for First Nations in the salmon industry by decreasing the overall fleet size through a reverse auction process that occurred in three rounds, costing the government 6 million dollars to purchase 11 seine, 31 gillnet and 33 troll licenses (Grafton and Nelson 2005). In 1996, the Mifflin Plan¹⁴ was introduced. Many of the recommendations made in the earlier Pearce Report were reiterated in the Mifflin Plan in an effort to deal with the increased fishing power in the fleets and related shortened fishing times due to the capital stuffing that had been occurring in the industry since the implementation of the Davis Plan in 1968. As well, after 1994, landed values decreased, along with a decrease in price due in part to an

¹³ This UFAWU document concludes that – based on figures of TAC between 2001 and 2007, as well as catch totals, catch per vessel, expenses, landed values, and total active fishers in the same time span – ITQ trollers were making less money, while management abilities remained the same, and the TAC were more closely achieved (were less variable) than in the open fishery. As well, while the number of active vessels stayed the same, the number of inactive vessels increased.

¹⁴ Implemented under two different plans: the Pacific Salmon Revitalization Strategy (1996), and the Pacific Fisheries Adjustment and Restructuring Program (1998) (Schwindt et al. 2003).

increase in the harvesting of lower value salmon species such as chum, combined with the increase in farmed salmon now available worldwide (Schwindt et al. 2003).

Under the Mifflin plan, license fees were increased, and \$80 million was allocated for another major buyback via the reverse auction process, which resulted in the purchasing of 48 seine, 444 gillnet, and 305 troll licenses – a total of 797 salmon licenses. As well, not only was area licensing introduced for the three gear types (2 areas were allocated for seine and 3 for gillnet and troll vessels), but single gear licensing, as well as multiple licenses for more than one gear type in more than one area were made available. These multiple licenses could be stacked, or “married”, but then could not be “divorced” and sold separately. There were some allowances under this plan, such as fishers could take four years to decide which area they wanted to fish before they had to specify an area. As well, if a fisher chose to not fish for a year, she/he could “tie-up” and have their license fees waived for that year (Grafton and Nelson 2005).

In 1998, another round of buybacks occurred. This time the government allocated \$400 million dollars to rationalize the salmon fishery, allocating \$200 million to complete the largest buyback yet; the other \$200 million went toward habitat restoration and community assistance and retraining. The result of this final buyback was the removal of 216 seine licenses, 731 gillnet licenses and 462 troll licenses, all purchased through the same reverse auction process (Grafton and Nelson 2005). The end result of these policy reforms was a reduction of almost one-half in the salmon fleet, as 4,367 vessels were licensed in 1996 and 2,228 in 2002 (Tamm 2002, Garner and Parfitt 2006).

While there was a significant reduction in overall fleet size through the Mifflin Plan, the actual reduction in fishing capacity was very limited due to the technological advances that allowed for a smaller number of vessels to achieve almost twice as much catch, and therefore the fish processing industry was not greatly affected by these changes (Holland et al. 1999, Weinstein 2000).

Table 5: Effects on Gear Types of 1996 and 1998-2000 Buybacks.

Gear Type	Eligible licenses 1996	Licenses Retired 1996	Eligible licenses 1998-2000	Licenses Retired 1998-2000	Licenses Remaining
Seine	536	48	487	216	271
Gillnet	2,256	444	1, 825	730	1,095
Troll	1,291	305	989	460	529
TOTAL	4,112	797	3,302	1,406	1,896

(Grafton and Nelson 2005, 22).

Landings continued to increase for some species until 2007 when they declined to the 2001 level (see Table 6).

The implementation of the Mifflin Plan and related introduction of ITQ programs across most of the existing fisheries had significant socio-economic impacts on fishing communities in Northern BC (Tamm 2002). Generally, fishers who owned the boats, licenses and or quotas benefited, whereas crew members, fish processing workers, packers, and seine net members did not. Most of the fishers who benefited were those who owned larger vessels and worked for large firms because they had the capital to

purchase licenses and quotas, and they were the only ones to receive compensation when the quota was sold or leased (Copes and Charles 2004, Pinkerton and Edwards 2009)

Table 6: BC Seafood Landings ('000 tonnes) 1998-2007

Species	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Wild Salmon	30.3	17.0	18.9	24.7	33.3	38.6	25.9	27.3	24.3	20.1
Cultured Salmon	42.2	49.6	49.4	68.0	84.3	72.7	61.8	70.4	78.0	79.3
Groundfish	139.2	139.9	75.2	115.7	114.7	128.0	181.5	170.6	147.9	123.0
Wild Shellfish	19.3	17.0	17.7	20.1	18.6	20.6	21.7	18.1	15.1	16.8
Cultured Shellfish	6.1	6.5	6.5	8.9	9.1	10.2	9.9	10.1	10.0	8.7
Herring	33.9	27.1	27.8	24.5	27.3	30.5	25.5	30.8	23.5	11.8
Other Wild	1.5	4.8	6.0	6.9	5.8	8.4	14.2	10.4	8.3	9.1
Other Cultured	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.4	0.8	0.9
Total	272.6	262.0	201.6	268.9	293.2	309.2	340.7	338.1	307.9	269.7

(British Columbia 2008)

It was small independent boat owners who most often auctioned their licenses because the cost to stay “in” the fishery was so great. As stated by the UFAWU-CAW (2008),

The true result of the series of licensing changes from 1969 to present was to inflate a ‘privilege to fish’ of zero cost – to the present prices of \$60,000 for a gillnet license to over a million dollars for a black cod quota and license. But not only has the capital burden of a license increased, fishermen’s access to fish has decreased (4).

The policy and related industrial restructuring of the fishery also contributed to a rural-to-urban shift in the fishery, with a greater proportion of fishers remaining in the industry living in the lower mainland (the greater Vancouver area), and in the southern part of Vancouver Island. These factors combined to have a severe impact on

employment in fishing and fish processing in rural and northern areas. In 1994 there were 10,430 seasonal jobs in BC compared to 1997 when there were 6,556. This amounted to a loss of 3,865 seasonal jobs between 1994 and 1997 (Grafton and Nelson 2005, Muse 1999, Schwindt et al. 2003). Tamm (2002) points out that the increase in capitalization – or private ownership through licenses and quotas – pushed the benefits of the fishery resources out of the reach of northern communities. He states, “[i]ndustry viability and not community economic viability has been the sole issue guiding policy reform” (Tamm 2002 17).

Another aspect of the fishery is the price fishers are paid for their catch. The price of the seafood processed in BC is contingent on the expected value in the marketplace, which is reflective of what fishers and growers are paid (Gislason 2005). Global markets, global economies, and consumer demand heavily influence prices. The seafood markets are integrated in a “value chain” that works to link fish caught with processors, and then with buyers. Within this chain, it is important to get the product on the shelves in a timely manner, ensuring a higher quality and thus higher value product (Gislason 2005). Overabundance on a worldwide scale equates to lower prices in BC. Thus, the prices that fishers receive are heavily reliant on global fish stocks, fishing practices (such as increased aquaculture) and production costs. As well, the strength or weakness of the Canadian and US dollar influences the amount of money fishers make if they are selling fish in US dollars.

Therefore changes to government policies related to the fishery worked to decrease the number of fish boats in the ocean, and at the same time increase the cost and fishing power of the smaller fleet. In combination with global economies that affect the

price and demand for the fish caught, one now needs considerable money or capital to fish. Those who left tended to be small individual boat owners living in small rural communities, and as a result these communities were severely impacted by the reduction in the fishing fleet.

Policies relating to fish processing

As previously stated, it is the province of BC that regulates the buying, processing and selling of fish, as well as the health and safety of workers, but inter-provincial and export trade, are the jurisdiction of the federal government. Memoranda of Understanding have developed over the years to clarify the responsibilities of each level of government. Fish processing plants are licensed by both federal and provincial governments but the number of licensed processing plants, buying stations or brokers is not limited by regulations in BC. Some plants in the 1990s received loan guarantees, but there is no assistance program, no grants, low interest loans or tax holidays for BC seafood processors today. BC fish processing plants are private companies, usually owned by multi-national corporations, such as Westin – which owns large grocery retailers (such as Loblaws, Sobeys, Provigo, and Superstore) and has its own food label, Presidents Choice – and the Jim Pattison Group – which owns not only a number of grocery chains in BC (such as Save-On Foods, Overwaitea, Coopers Foods and Urban Fare), but also owns businesses in many other segments of the retail and wholesale industries¹⁵ (Barndt 2002). When large conglomerate corporations own businesses in an industry – from the licenses on the

¹⁵ For more detailed information of see The Jim Pattison Group website <http://www.jimpattison.com/food/overwaitea-food-group.htm>.

boats, through to the stores where the processed products are sold (vertically integrated), as well as competing chains (horizontally integrated) – it provides these corporations with the potential to mold the industry’s labour and market value to a form that best serves profit margins, not communities.

The Employment Insurance (EI) program is one social program that is extremely relevant to BC fish processing workers as it is to fish processing workers elsewhere in Canada. Many rely on EI income to meet basic needs. Created in Canada in 1940 as Unemployment Insurance (UI) it underwent minor revisions until 1994 when it was completely overhauled and the name changed to Employment Insurance (EI). During these revisions the Federal Government decreased the amount of money it provided to the Employment Insurance program and changed the method of calculating qualification from number of weeks to number of hours worked. Currently fish processing workers in B.C. need to have worked about 600 hours, or the equivalent of twenty 35-hour weeks in a year to be eligible (Townson and Hayes 2007). This change has impacted the number, and type of Canadian workers who can qualify for EI. In 1990, 74 percent of workers unemployed were eligible for UI whereas by 2004, this had decreased to 36 percent (Townson and Hayes 2007). There is also a gender gap in who receives EI and who doesn’t, with men meeting eligibility requirements more frequently than women due mainly to the fact that the new EI program does not recognize changes to women’s work patterns – 40 percent of women are part-time, temporary, casual, contract work, multiple jobs, or self employed without employees, versus 30 percent of men – and thus many do

not qualify under the 12 month work year, with 12 month qualifying year system (Townson and Hayes 2007).

In BC the total percentage of unemployed workers who are eligible is lower than the national average, while the gender gap of eligible men compared to women is larger than for the country as a whole. In BC in 2004, 32 percent of men who applied for EI received it, versus 30 percent of women (Townson and Hayes 2007). The effects on income levels and options of changes to EI interacted with cuts to provincial Social Assistance Programs as well as decreased income tax rates in the 1990's for fish plant workers. This is discussed in more detail below.

Interview Data on Institutional Restructuring

During the interview process I asked what the interviewees thought of the policy changes concerning the BC fishery. The adoption of the quota system was discussed most often. Many of the interviewees talked about inequality between vessel owners and deckhands that the quota system fostered, as well as the loss of work and income experienced by fishers from Prince Rupert and surrounding areas and the increase in the cost of fishing. In this interview, the interviewee clearly states the weaknesses with the quota system.

Fish processing Worker (FW): It [the quota system] put a lot of people ashore. It [the quota] started with black cod. And again, the guy who has the biggest boat is going to have the most quota because he is going to buy it all. And he might not even be a fisherman. Some guys got really hurt on this.

But what they're doing, they're charging the crews, the crews are paying for the owner I guess to fish that quota... You've got to give the skipper credit. If it's a boat with a high name, good production, some of that went to the crew. But things were going fine, they [the crews] were fishing the

quota, and they were making good money, then someone looked at the writing on the wall and said hey, you know, this is our quota, and so we're putting in our quota for these guys to make all the money. So let's start charging them for it, and that's what they started doing, some of those guys go now and if the boat doesn't do well, whether it's bad, they'll go in the hole, cause they have to take an observer, which costs money, observer gets paid, even if it's a harbor day, so it's a bit frustrating. It's because they're making a quota owe so damn much money, the product has become out of reach for the consumer.

In this quote the interviewee provides an example of how fishers are able to use the licenses to increase the money made, but this only benefits the license owner, not the crew. The interviewee in this quote is discussing how the quota system has increased the costs to the fishers, or license owners, who are not necessarily the same, as well as the crews, and that this increase in cost is pushing up the price of fish. In this next quote a plant manager talks about the quota system from the perspective of the processing plants.

Plant Manager (PM): Yep. So we make money off just holding quota and boats, like we can fish in here, we can bring thousand and thousand of fish here, just cause we process it and if it cost us too much to process it and it got frozen, and McMillan doesn't make any money, but the boat side of it makes money, which is called Sea Forth Industries.

This informant details how fish processing plants make money (the boat side) by owning quotas, even when the processing part of the business is not making money. The switch to the quota system has added another aspect of the food system that mega corporations are able to own and profit from.

Another key informant I spoke with talked about how the buy back policies had affected Prince Rupert, and especially the outlying First Nation villages due to the lack of alternative employment options that exist, especially for First Nation peoples.

Key Informant (KI): In the fishing sector probably 20 years ago we had lots of fishermen here. There is a handful of non-native guys left, and

there are two handfuls of native guys left because we have just gone down from a really big fleet of probably 1000 boats on the North Coast, down to probably 300 boats on the North Coast. I mean a huge, huge, huge drop in the number of boats and fishermen on the north coast, and the percent has changed because the native guys are living here, and so there is not really as much access. If you live in a village there is not many other things to do besides fish, right? So you either have to move away to Fort St. John, because there is nothing in Rupert anymore, or you just are unemployed in the village. So fishing is a huge economic component in the First Nation villages.

Also discussed by those I interviewed was the price of fish, pointing out that the price fishers are paid is contingent on the strength of the Canadian dollar, global demand, as well as the ability of their union to negotiate a fair price.

PM: It's tough mostly because of the way the dollar was going. It's starting to turn around again, I mean, the fishermen before, back in the day, they were all rich, they all made good money, and now I mean they are dealing with the fuel cost and the market, I mean the market kills those guys. If they bring in a nice load of fish and it's not selling, it goes into the freezer they get paid a lower price for their fish. So I mean we have been dealing a lot with the dollar market and everything else.

KI: We had a minimum price agreement. We still have the salmon share agreement and we still have the minimum price agreement but what we haven't successfully concluded agreement on is the minimum price agreement for five years now, so really, so legally we will say that we have a minimum price agreement, we are just in negotiations, in reality that hasn't, we haven't concluded negotiations, so there is no minimum price. And with fishermen up to maybe 2001, 2002 when we really lost control over our price agreement, because fishermen were really too poor to strike anymore and they were divided on Mifflin. We go on a coast-wide strike so if we strike up here you could still benefit by fishing down south, but what happened is that we got our areas divided into smaller and smaller regions, so if you strike up here you couldn't make it up by going down south, and so guys up here didn't want to strike cause it would only benefit the guys down south. Guys down south didn't want to strike because it would be too late for the guys up north beside then there is nothing for them to benefit from, so it was horrible. It is horrible.

As the union representative highlights above, the change in policies has weakened the ability of the workers to negotiate these prices as the fishers in the south (Vancouver/Steveston) and the fishers in the north no longer act as a united front. Thus the processors, and large grocery chains that own them, are able to negotiate prices that are more favorable to their bottom line.

While the statistical data on the institutional restructuring of the BC fishery show that the fleets were reduced by over fifty percent, and that ITQ's impacted those in the coastal Northern communities more so than those in the south, the interview data provide information on the coping mechanisms of the fishers, such as using one crew to fish four boats/licenses; the hidden costs, such as observers who are paid even when they don't fish; and how the ITQ system benefits processors over fishers because processors make money from the leased quota, even when the fishers are paid low prices, or not paid at all for their fish due to overabundance, or lack of stock. The interview data also made apparent the significant impact the changes in fisheries policy had on First Nation's villages which were more heavily reliant on the fishery for employment, and within which people were left with the option to move or be unemployed after the reduction in the fleet. Another ramification of the institutional restructuring has been a reduction in the strength of the union, which has, in turn, negatively affected the ability of fishers to negotiate such things as a fair price for their fish.

3.3 Environmental Restructuring

A large portion of the environmental restructuring that has occurred in the last thirty years in fisheries was significantly tied to the neo-liberal government policies that were

implemented in part to regulate the fish stocks (McCarthy and Prudham 2004). In addition, the combination of neo-liberal policies and environmentalism has provided the basic building blocks for post-Fordist models of regulations – although environmental concerns are also one of the major critiques of neo-liberal policy (McCarthy and Prudham 2004).

While the volume of fish stocks varies year to year, the overall trend is toward a decreasing amount of fish. Over-fishing is one factor in this overall stock decline (McMullan 1987), but there are other environmental factors that are affecting the fish stocks. These include continued salmon spawning ground degradation as a result of forestry and mining activities (Dolan and Ommer 2008) and climate change (Beamish et al. 1999).

In response to the stock decline new fish production methods were implemented, such as intensive aquaculture, as well as a broadening of the range of species being harvested. These changes to the industry were supported by both the government and the processing industry (personal communication with key informant).

Other types of fish, such as halibut, herring and other ground fish slowly entered the fish markets after refrigeration methods made fresh and frozen fish a desirable commodity after WW2 (Muszynski 1987). The introduction of new species into the industry was also a result of new large plants, created through consolidation and mergers, facing depleted salmon stocks starting in the 1960's. Finding new products and new markets were vital to their survival as well as to the survival of the fish stocks themselves. While DFO and the provincial government have stated that diversification of

fisheries is the way of the future, this directly contradicts a current regulation in the fishery which, for the most part, results in licenses being sold to fishers for a single species in a single area. Acquiring multiple licenses has become, or is out of reach for many fishers due to the high cost of ITQ's, diverse fishing gear and observers (UFAWU-CAW 2008).

While both shellfish and finfish have been farmed successfully in BC, finfish – especially Atlantic salmon farming – has seen consistent growth in both amount and value in the last 10 years¹⁶ (see Table 7). Aquaculture production, specifically production of farmed Atlantic salmon, has been heavily supported by both Federal and Provincial governments in BC since 1984. In 2008, \$20 million from the federal budget was allocated to the aquaculture industry (Aquaculture 2012) to fund governance and regulatory reform, regulatory science, innovation, certification and market access (British Columbia 2008). This growth in intensive salmon aquaculture coincided with the decline in wild salmon stocks, and aquaculture has been seen as not only filling this gap, but also providing much needed employment opportunities in coastal communities devastated by regional declines in the commercial fishery (Rayner and Howlett 2007).

Table 7: BC Aquaculture and Harvest Values 2005-2007

Species	Harvest ('000 tonnes)			Farmgate Value (\$millions)		
	2005	2006	2007	2005	2006	2007
Salmon	70.4	78.0	79.3	318.3	407.4	364.4
Shellfish	10.0	10.0	8.7	17.9	19.0	18.5
Cultured	0.4	0.8	0.9	2.6	3.8	5.0
Total	80.9	88.8	88.9	338.8	430.2	387.9

(British Columbia 2008).

¹⁶ Although there has been speculation that the shellfish industry in BC may see significant future growth (Rayner and Howlett 2007).

BC is the largest producer of farmed fish in Canada, and the fourth largest producer in the world. However, while the value of farmed salmon is double the landed value of the wild Pacific salmon fishery, the industry has not been without its issues. There has been a significant decrease in the price for farmed salmon, due to declines in global economies and intense competition between Chile and Norway – the largest producers of farmed salmon. In addition, every stage of the aquaculture process has been critiqued by commercial fishers, sport fishers, First Nations and environmentalists for its harmful impacts on the wild species, such as the spread of parasites and disease to the local wild salmon populations and the use of feed pellets made from wild salmon stock. Also criticized are issues regarding native rights, title, employment and health concerns about the residues, colourants and contaminants used in the final product (Rayner and Howlett 2007). These issues have become so significant that aquaculture is no longer seen by most environmentalists as an environmentally viable alternative to the harvesting of over-exploited fish stocks.

The aquaculture industry in BC has also fallen short on its promise of employment opportunities. As with the fishing and wild seafood processing industry, there has been rapid consolidation of fish farms in the last twenty years. In 1988 there were over 100 fish farms operating, while in 2003 the number had decreased to 12 much larger farms. Not surprisingly, there was no employment growth in the industry in the 1990's, while at the same time production tripled (Rayner and Howlett 2007). Fish

farming has been shown to be profitable, and with the increase in funding from the government it can be expected to continue to grow.

Overall the health of the fish stocks is of great concern, not only to those who use the resource for their livelihoods, but also to those for whom it holds cultural and spiritual significance.

Interview Data on Environmental Restructuring

Through the interview process workers discussed aspects of environmental restructuring relevant to their working lives and the wider industry. One of the workers I spoke with commented on the stock decline, pointing out how climate change is touted as the biggest factor by governments while he considered disease and current fishing methods as plausible causes.

FW: I have noticed though, like this year there was no springs, but the quick easy thing is to blame global warming, politically expedient, it's the green thing, but I think there is something else going on out there, if it's disease or what the heck it is, or if it's interception.

Generally, the fish processing workers interviewed for this thesis did not view the aquaculture industry in a favorable light. These workers process wild salmon and they blame farmed salmon for decreasing wild salmon stocks, as well as for reducing its market value. They also identified aquacultured salmon as a substandard product.

FW: Farmed fish has really hurt the salmon industry. And I wouldn't walk across the street for a farmed fish. It's the same as, have you seen chickens that are being raised just for the eggs, it's like they're a machine, I mean they're in there; they can't run around free. They're caged, I mean they cover themselves with offal, not offal...feces. But you know everything is high speed, it's mechanized and save a buck, but you wouldn't want to eat one of those chickens, the way they're treated. If you

take the same chicken and let it loose and run on a range your going to be sure the eggs are going to taste a lot better, the chicken's going to be a lot healthier and a lot better to eat.

I mean, sure it's ok, the people who are working in the farmed industry are making money, but there are a lot more people who are working in the wild fishing industry doing the same thing. And it involves a lot more people, you know the gear stores, but you know it's not the same, you're going to have a pen there or going to have 10 boats fishing or two people feeding. Sure that's cheap for them to raise them and they're going to sell them cheaper and the wild salmon industry just can't compete. So, I hope you would never see, like Alaska has taken salmon out of farms, and they have held back from the farms. And BC packers, once the largest company in BC, they went to South America with farms, they could make big money out of something you didn't have to put so much into, and ah, BC packers, they went into South America and they were raising local species like coho and spring salmon, so if they released in the environment and it wouldn't hurt the natural environment.

Here it's an East coast and European fish, and it's a scavenger like you wouldn't believe, and it's not the same... So much has escaped, that they are all farmed now. It's the same thing, if you have an out house, well it's going to get full so you have to move it. Well farms are like that too, the safest, the most expensive but the safest way for the farm is on the beach. And you filter your water through a sediment pond before you release it.

The people with experience say it is a problem and the politics, and the government wants to side with them. It's, they'd sooner lose the wild stock, just to have the farmed industry survive. And they're leaning that way. I mean it's a proven fact, but they just won't accept it. Because there's good people on both sides, and they're setting a good argument but ... it's a pollutant.

FW: There's another opinion I have, Atlantic salmon have got no business being out here anyway, you want to farm them, farm them out - because they do interbreed, they escape, and they cause all kinds of problems, I mean there's the lice problem, and you know all these different things that you do hear about, but no. And if you are going to do it, you force the fish farming companies to spend a little bit more money and go to closed containment or on land. You know, forget if it costs you more money, you know, too bad, you figure out some way to make a profit. Not here. We did get, like a moratorium here, protecting the Skeena for a little while, but how long does that go on? I mean, Campbell and the liberals are in bed, here's the story: Regulations, yeah. Campbell claims we have

the toughest regulations in the world. Which, you know, we could argue, yes, so you want tough regulations. I am not sure which company it was, I think it was Pan Pacific, they had a huge, you know escapement, you know, got away, some other problems, they were fined - they were contravening the laws, they were fined one million dollars. And then the Campbell government comes along, says oh you don't have to pay it. They forgave it. So what's the point of the regulations? What good are the regulations? You can have the toughest regulations in the world, you don't enforce them, you're good for nothing. I rest my case on that one. It's disgusting. But, that's the politics bullshit.

Thus aquaculture in BC is a complex issue, as the above quotes exemplify. While aquaculture offers an abundant and consistent supply of desired fish, it also brings with it health and environmental concerns, and is understood by some in the industry as a threat to the wild stocks and to those who make a living from them.

While much of the information gathered in the interviews compliments the statistical data, the interviewees also provided important additional information on this topic. The suggestion that global warming is a "politically expedient" explanation for the decline in the wild salmon stocks is an important critique of government. As well, the critique of the salmon farms offers not only the opinion of some of those in the wild salmon processing industry, but also important points relating to how harmful it is to their industry. The loss of jobs, and the downward pressure on prices were noted in the literature, but the key difference between having regulations and enforcing them, was not.

3.4 Industrial Restructuring

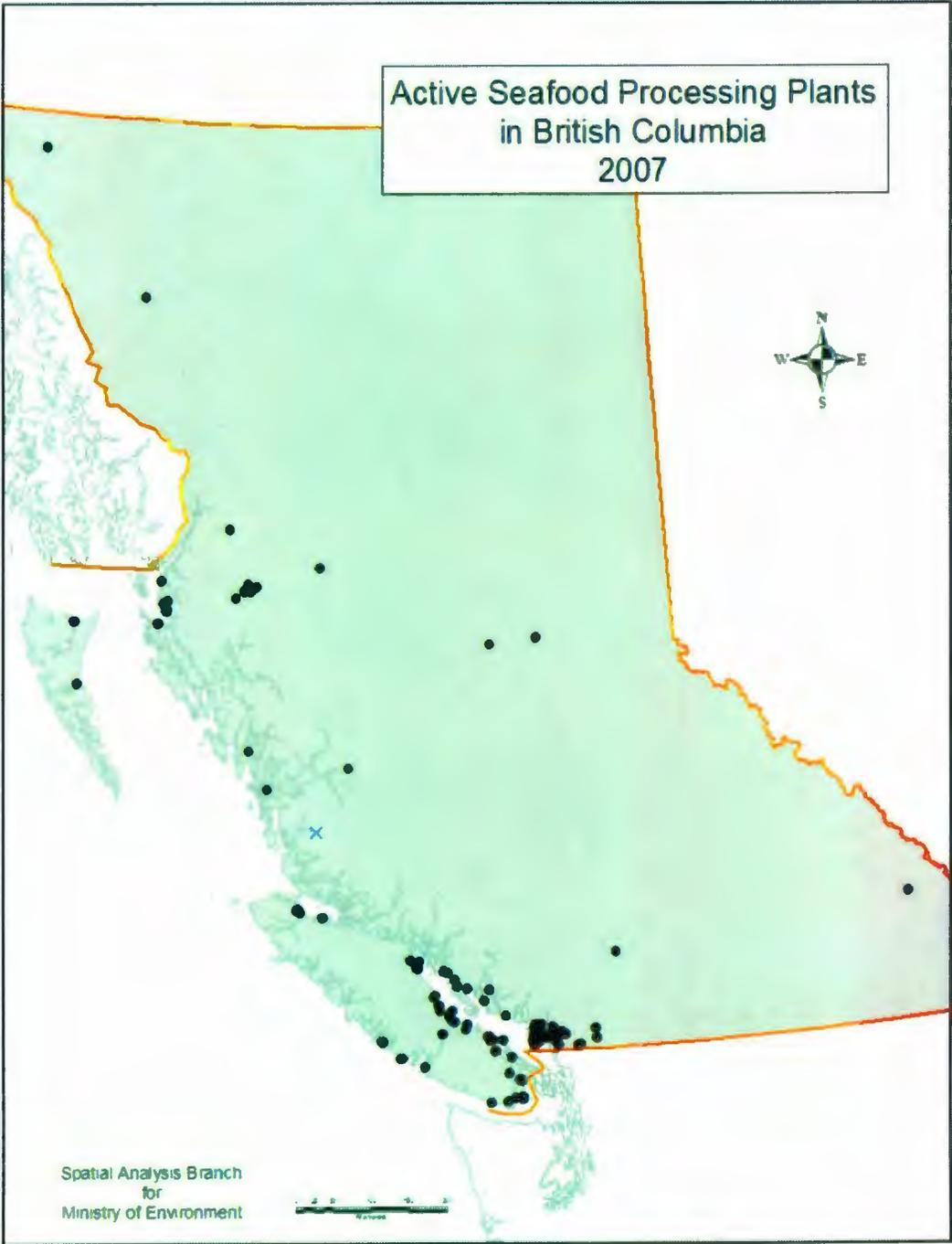
Salmon-canning operations were the dominant influence in each period, effectively defining the technology and structure of the evolving industrial fishery. Consequentially they have shaped government regulatory policies for the Pacific Coast" (Newell 1993 211).

Currently in BC the majority of fish plants are located in Vancouver and Steveston. There are also numerous fish plants on Vancouver Island, including plants in Port Hardy, Port McNeill, Campbell River, Quadra Island, Ucluelet and Port Alberni (See Map 2). Prince Rupert, located along the coast of northern BC, is the regional processing centre for the capture fishery, and processing plays a vital role in the local economy. Any decrease in fishing landings has considerable effect on fish processing workers, and their jobs reflect the up and downs of the fishing industry (UFAWU 1998)

While the first half of the twentieth century saw merging and consolidation of canneries, with the resulting closure of plants in the most remote areas, the second half of the twentieth century witnessed plant closures in even the most productive areas such as Prince Rupert. The processing industry, beginning in the 1980's and coinciding with the institutional restructuring of the fishery, began to switch from a Fordist model to a post-Fordist model of production. This shift included increased mechanization of the fish plants, as well as increased outplacement of processing work to the processing plants in Vancouver and overseas. This contributed to a loss of jobs for many fish plant workers in Prince Rupert.

The outsourcing of raw material as well as processing, to Asia, South America and the US is increasing in BC fish processing plants as major seafood products have been switched from canned fish to frozen and fresh skinless/boneless products (Gislason 2007). The decline in BC fish stocks has become a significant problem for this industry and, as a result, salmon,

Map 2 Seafood Processing Plants in BC



(British Columbia 2007)

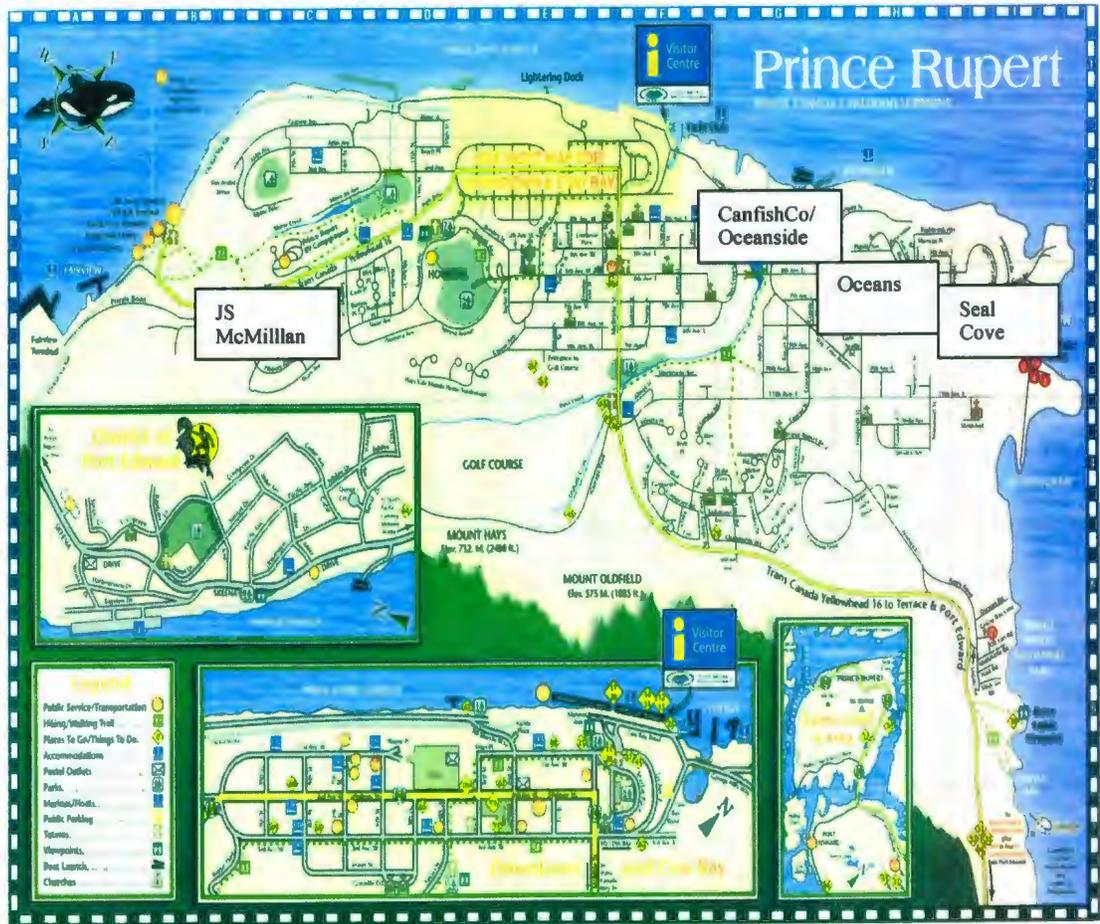
herring and halibut, are commonly bought from processors in Alaska and processed in BC. Seafood is also being frozen and shipped to Southeast Asia to be canned. Smoked salmon products are being produced in BC from frozen salmon that originated in Norway and Chile (Gislason 2007). This global processing trend has increased in popularity due to improvements in refrigeration and transportation technology, which have allowed processing and harvesting to happen in very different and distant geographic locations. China is leading the world in seafood processing, bringing in unprocessed seafood from all over the world, processing it, and shipping it back at competitive prices. Major factors in China's (as well as Southeast Asia's) ability to offer competitive prices include its larger labour force and low wages (Gislason 2007).

The canning industry has expanded to include processing and canning many different types of fish and shellfish, however the demand for fresh and frozen fish has surpassed the demand for canned seafood. In 1983, 272 different seafood products were being processed, in 2007, this figure rose to 472. In 2007, 43 percent of total exports were fresh or chilled finfish, versus 37 percent of exports consisting of frozen, smoked and canned finfish. Shellfish and other products made up the remaining 19 percent (BC Statistics 2007). Consumer driven markets for fish are the target of the BC fish processing industry, with a focus on "health" as well as convenience. There is also a push to have consistent quality and transparency in seafood products similar to those found in agricultural products (Gislason 2005).

Current plants

The changes to the processing industry in BC are similar to the changes seen in Prince Rupert fish processing plants.

Map 3: Seafood Processing Plants in Prince Rupert



Prince Rupert Tourism

In its heyday there were at least 15 canneries and processing plants in the Prince Rupert area. This number has dwindled over the years through mergers and bankruptcies down to the four that are currently operating (Cambell 2004). These four plants are J.S.

McMillan, Oceans, Oceanside and Seal Cove (both Oceanside and Seal Cove are operated by Canada Fishing Company [CanFishCo]) (See Map 3). All of these plants have main offices and larger processing facilities in Vancouver, and are owned by private multinational corporations.

Only Oceanside still cans salmon, but all plants process a variety of fish species including: all types of salmon (though Pink is the major variety), rock fish, sole, flounder, cod, black cod, halibut, crab, herring, skate, sardines and flounder. A majority of the fish is graded and frozen and then sent to their Vancouver plants, or overseas to be further processed or canned. Salmon is still the major species being processed and the majority of salmon caught on the north coast is processed in Prince Rupert although, like most of the seafood processed in the fish plants, the salmon is often only minimally processed – usually gutted and cleaned, then frozen and shipped for further processing elsewhere, where it is turned into a value-added, high-end, skinless and boneless product (UFAWU-CAW 2008).

This outsourcing of processing has significantly impacted fish processing employment in Prince Rupert. It has affected even the most senior workers with an associated loss of full-time year-round employment opportunities. Many of the fish processing workers I spoke to brought this up as a concern.

FW: Those were 12 hour shifts. And then they switched it to 8 after a few years, but then that popping roe, we haven't done that in years and years. We just were in and just froze the fish and packed it up and sent it in to Vancouver, down south, yeah and they popped it there. They have been doing that for quite a long time now.

KI: It's cheaper, and sometimes I guess, it's pre-sold to a company that put a bid on it and it just goes straight and we have been trying for a long

time to put a stop to that. You see because in Alaska, like we do chums and herring from there, the stuff that is exported out like to be processed out here which we do quite a bit of it, the plants up in Alaska cannot handle it. It is when they come to that point then it is allowed. And I think we should be doing that too. Because there is a lot of work going out and people are hurting.

FW: Up until then all the stuff was sent out to Cassiar [fish processing company] and was canned out there and we had probably 48 seine boats fishing and delivering to us in 1990 and probably 70 percent of that was pink salmon and everything, and it was shipped to Vancouver on Packers and sometimes a chartered dragger would take 300 lbs.

Canadian fishing company they put in an iron chink out there and they dressed the fish and all heads and fins and everything else had to be taken off and it had to be shipped out to Vancouver and you'd get the quality of the eggs, the pink eggs and I think it was usually 48-56 hours and the eggs are no good, and they salvage the eggs here cause they are only 24 hours old and the eggs were processed in the plant here and the fish were sent south to be canned, which is the same thing Ocean Fisheries is doing. They have two lines, working probably about 20,000 lbs. in ten hours, but up until then it was just a shed here and it was just sockeye and troll fish and most of it was sent to Vancouver on ice. Some of it was frozen, not too much.

FW: And another thing that has happened with Ocean Fish taking over, a lot of the work that we used to do here is now done in Vancouver. So like before the fish would be taken out and sorted and packed in 100lb. boxes and shipped out to where ever they were planning on going, and that is all done in Vancouver now. When I started out I was at Royal and that was taken over by Cassiar I believe in 1980, they only lasted for a couple of years and then they went under and Ocean Fish bought it, and when Ocean Fish bought it, they have a quite a large operation in Vancouver, so quite a lot of work that we used to do here got shipped to Vancouver and so we lost quite a bit of work because of it. Some of that has been replaced, but not as much as we lost. We lost quite a bit of freezer work. We used to have 15 -20 people that would work year round, cause all this fish was put into cold storage and then during the winter it was repacked and shipped out. That's all done in Vancouver now. With the herring, with the roe herring, you take out the roe, you pop the roe and then it's frozen, that's all done in Vancouver now, well that used to be done here. There was a lot of work lost there.

The quotes above highlight the changes to the fish plants over the last two decades. The merging and closing of the fish processing plants changed the patterns of work for the workers who either moved to new plants, or stayed in the same plants but worked for a new company, with different processing practices. The larger companies (such as Canadian Fishing Company) have larger plants in Vancouver where the majority of the fish is now sent for processing.

While outsourcing of work has contributed to job losses in the processing plants in Prince Rupert in the last few years, fish processing workers and the UFAWU have been working with the fish plant managers to increase the amount and type of processing done in the local plants. There is hope that as long as the fish plants remain in Prince Rupert, the possibility exists for an increase in the processing done in the local plants (UFAWU-CAW 2008). As one fish processing worker commented,

FW: Whereas this fish that was going here, you know shipped down to Vancouver, we now take it up and put it through the butcher. It gained quite a bit of work there, when they did that. Plus they just installed a filleting machine for skinless boneless, you know salmon, I think it's worth like 3/4 of a million dollars or something like that, but that's created quite a bit of work here, so you know there has been some good things that have happened.

While Prince Rupert fish processing workers have made some gains, these haven't come without concessions, such as agreeing to work for less pay. This fish processor indicated it was worth it to them to take a decrease in pay in order to ensure more work for the future.

FW: I think it does, I hear about Oceans, they were in the newspaper a few years back when they just started a new work order, and we're the only plant that really started that, and we got a wage deduction, because it's a new work order, because it's something new we started in the plant. We

got a different type of species that we're trying to do, and it worked. It was really nice, but it really declined, but they're still trying to find work for us to do, and I really like that.

Expanding the types of fish stocks processed is another way that fish plants in Prince Rupert are trying to deal with the decline in salmon stocks and quotas because this not only provides work for the processing workers, it also provides an economic safety net for the fish plants; if one species has a bad year, then they have other species to fall back on. Two of the plant managers I spoke to touched on this in the interviews:

PM: The groundfish is what saves us. It's our bread and butter. If we didn't have that, we'd probably shut the plant down. Oh yeah, I would think so. You can't survive off of salmon, herring; I don't know how Canadian Fish can do it. But they are backed up by Jimmy Pattison, so he's got lots of money, lots of power.

PM: Yup, we have to diversify, we can't just rely on two species, which is what we have done in the past. We've had salmon and herring, but those are no longer going to be the major stocks, I don't think. Hake is now. There is more hake being caught than salmon and herring combined, and I think we are just going to have to diversify more. And there has been a consolidation that has been happening all up and down the coast with the plants and with the companies, and I think that's going to continue, because it's no longer viable to have different plants doing just one or two things.

As the last plant manager notes, consolidation as well as increased mechanization of the fish plants have been extremely common in Prince Rupert. Often these went hand in hand, as larger companies would buy out smaller ones and increase the mechanization of the larger plants at the same time. The main result of this restructuring process has been loss of employment (UFAWU-CAW 2008). However, as the fish processing workers identified in the interviews, changing workplaces and companies also affected their personal enjoyment in the plants, as well as their job descriptions.

FW: A lot of this has changed to. Like the mechanization of the whole industry, like when I first started here, everything was done by hand. Well except for the filleting for the groundfish, the fish was filleted by hand and then the skin was removed by a machine. So pretty much everything was done by hand, whereas now, even with the salmon, there is a machine that will have it gutted and go over it again and check it over, so it is highly mechanized, a huge loss of jobs because of that, in what else, just about everything.

FW: I think and up until about ten years ago it was, when I first started there everything was done by hand, and you didn't have filleting machines -- like we have a Ryco and it dresses and cleans fish and it spits them out at about 60 fish a minute where everything was done by hand and you cut the heads off the fish and you dressed them and everybody worked together. But in the last 10-15 years it seems that, when I first started there I would go down there, we loaded the brailer by hand, we had to rely on each and work together in the last 10-15 years with the pump or whatever, you go to work you do your job and it don't work together like you used to.

FW: It's not the same. When we moved, we used to work in Port Ed and we came into town and went to the main plant. It changed a lot then, um... More rules, regulations, and just a different work environment, yeah and out there we always had a lot of fun, played a lot of jokes, we'd laugh, made the time go a lot faster. We come into town and everyone "grumbles" yeah, it's like okay. So in that respect it did change. Not as much fun, everyone's so serious you know, that type of thing. It is a bigger plant, yeah.

KI: Yeah, right now I am just doing maintenance. I am a forklift driver, I grade fish, uh I sometimes butcher fish, like uh the other day the first time in my life I ever butchered halibut. They were bringing in fresh halibut alive and we have to kill it and dress it. It's because if they bring in, they are allowed to fish on board for ten days and they have a window when they can get that to market. By doing it fresh they get an extra five or six days and they can ship the stuff to Europe by plane, and they get a lot more money for it.

FW: It was 1980 when Cassiar went into receivership, about a two year process, '82 or so Ocean Fisheries took over. And really, you could kind of split in, that was of the old era, more like what the fishing industry was like at that point, but that is kind of the break, at that point. And it was kind of like a big happy extended family, you know it was like that; it was a smaller group. And you know Ocean is basically expansion, it's

growing. Some of that's good, you know I am not saying all the old stuff is bad, you know there are some good elements in there too.

These workers identified the change in work environments as the processing plants bought each other out, consolidated and merged into the four large plants. Generally with the changes came loss of work to Vancouver and a decline in community feeling among the workers themselves. Work not only became scarcer, it became less fun too. Those who were not laid off were those workers who were at the top of the seniority lists. Due to the uncertain nature of getting any work, even in the peak season, the number of young workers in the plants has decreased leaving a workforce that is middle aged.

Another major consequence of the consolidation and increased mechanization of the plants has been the increasing trend towards multiple job duties for employees. This trend was identified both by the plant managers and the fish processing workers.

PM: As we have downsized over the years, everybody's job duties have kind of consolidated,

FW: Yeah, I am uh, a grader for unloading. And I have been doing that for, gee, uh, 15 years I guess. When I was first hired here, I was hired for cold storage, freezer, and was strictly for cold storage only. And when I first started it had an unloading crew, it had a shed crew, and a freezer crew, and it had a roe crew.

I: Ok, so now it's been merged?

FW: Yeah, now it's hard, you work wherever they want you to work.

FW: My job is doing a little bit of everything. So I started in 1974, or '75. I started at the bottom where you are washing fish and you progress up, and you offloaded fish by hand. Nowadays mostly you offload fish by machine, by pumps, Transvacs and everything. We used to use pews, and they were outlawed or whatever, they damaged the fish.

FW: Like at our plant right now, we said ok, we'll try and have one seniority list and we will try to have everyone on the one seniority list and

they will be classified as shed employees. So there is shed employees on one list and now you have freezer and you have the egg plant and you have the iron butcher, and so if you want to work in the shed, everybody is on the shed list and if you want to work in the egg shed you can work all the time in the egg shed or if you want to work with the iron butcher, cannery section of the plant you can work over there on your first option, cause what was happening up until then was the assistant manager would go around and ask if they wanted to work in the freezer tomorrow, so he would go and ask 30 people and everybody would say, yeah, ok maybe I will, maybe not, I don't know, and it wasn't fair to him.

So what we did before the salmon season if you want to work in the freezer then you have to put your name on the freezer list, and if you have your name on the freezer list then you have to work in the freezer for the summer and the same with the egg room and the iron butcher, and then afterwards the bumping ball, if there was too many people in the freezer that day and you needed one or two people out in the shed you would bring these people out of the freezer and work in the shed rather than calling somebody else in, so you can control your workforce right and people were complaining about it and everything else but it worked out.

And now the present person is trying to control that, it's something that's negotiated between the union...as a plant memorandum where our master agreement is our master agreement, but what used to be all plants but now most of the or the union negotiates with each plant, I guess it will be part of the master agreement this coming negotiations in April, but we are going to, because the plant manager wants to eliminate it, he wants to be able to dictate where you go and what you do and everything else.

The key changes these workers are highlighting include the switch in work responsibilities from one specific task to more multiple job responsibilities; the changing market for fish, which has changed the way the fish is processed; and the increase in seafood now sent overseas, down south to the United States, or to Vancouver to be processed. These changes are all common to post-Fordist models of production. As discussed earlier, this post-Fordist model of production fits into the current neo-liberal economic and political ideologies and industry strategies to deal with the declining BC fishery.

The most critical change to the fishery and to their work that was identified by the fish processing workers I interviewed was the overall decrease in the amount of work. Almost all of them described the industry as “dying”. The loss of fish stocks, whether due to global warming, fishing methods, or diseases and competitive species, has had a significant impact in Prince Rupert, where through regulation and policy change the fishery has become for most out of reach and more a historical memory rather than a viable industry.

3.5 Social Restructuring

Changes to gender dynamics, community, and generational as well as household dynamics, all fall under the category of social restructuring. In this section I discuss these changes first to the community of fish processing workers and then to the larger community of Prince Rupert. As many of the social changes that have occurred in the plants (as well as Prince Rupert) are directly linked to the larger restructuring at the institutional, environmental, and industry levels, I begin my discussion with the role of the union in buffering changes to employment, and gender discrimination.

Unions

Unions have had a strong impact on fishers and fish processing workers’ employment in the BC fishery, especially in Prince Rupert where many of the Unions originated. In Prince Rupert, up until the 1980s, the most dominant organizations were the UFAWU, the Prince Rupert Fisherman’s Co-operative (PRFCA), and the Native

Brotherhood co-op. These organizations have decreased in size and power, or have folded altogether, much like the fishing industry itself since that time. Currently there are two unions in Prince Rupert that serve the fish processing workers, the UFAWU and the UFCW. While the UFCW represents the workers in the J.S. McMillan plant, the UFAWU represents fish processing workers in the other three plants, as well as in most of the plants in Northern BC. The UFAWU has been historically quite active in gaining rights for fish processing workers and protecting them through the many mergers and consolidations (Newell 1993, Muszynski 1987). The union has also been active in a number of strikes that have occurred in Prince Rupert over conflict with fisheries management and regulation. The union representative I spoke to explains the responsibilities of the union:

KI: We have shore contracts for the majority of shoreworkers covering the majority of plants on the north coast, and what we do here is enforce those collective agreements and negotiate those collective agreements, and so that's our core union business, for shoreworkers. And so we have a seniority list by company; we have a collective agreement and so our core business is negotiating that, enforcing those collective agreements. Our union is also extremely active in the political sense, so we not only, we are not just a business union that looks after the collective agreement we're also a union that is very much involved in the politics, so anything to do with politics. So for shoreworkers it will be EI, access to, like processing fish on the north coast, by the north coast and more jobs and then poverty issues. We represent the poorest organized workers in British Columbia, and there are lots of First Nations issues, lots of equality issues that we deal with, less and less now as society is becoming better, but the whole human rights issue. So that's what we do, we have just been leading an EI campaign for the last three years, so city council, Chamber of Commerce, we make videos that kind of thing.

Clearly identified in this quote are the major concerns of fish processing workers in Prince Rupert: easier qualification standards for EI, increased local processing, and

poverty issues – which are tied to race, ethnicity, and gender issues as the majority of fish processing workers are older aboriginal women. The union has played a pivotal role arguing for many of these issues. Poverty is a difficult issue to tackle, but the union has worked hard to win not only pensions for workers with seniority, but also secure wages for new workers coming in (Muszynski 1987). The pension plan, won in 1999, was identified by one fish processing worker as one of the most significant union gains. He states:

FW: Yeah, but the biggest thing they got in the industry was in 1999 they, it was actually the first free trade strike fought in Canada, it was 18 days, everyone of us lost our season, came out of it, took a hell of a pounding and got our pension plan, and protected the rights of the younger kids coming up. The companies really wanted to slash their wages, and the older people said, no, we'll shut 'er down. The company didn't believe us and organized scabbing and the whole 10 yards, and at the end of the whole mess we got the pension plan, which was a big thing for the older people in the industry.

Along with the pension plan, and continued rate of pay for new workers coming in, the union representative also mentioned the union's attempts to challenge EI policies. The current EI requirements resulted in a majority of fish processing workers collecting welfare instead of EI since the changes to the EI program have coincided with the decrease in the length of seasons because they have not worked enough hours to qualify (UFAWU-CAW 2007). In 2007 the union created a video in support of federal Bill C-269, in which fish processing workers discussed their lack of work and lack of ability to collect EI, which has forced them to go on welfare and live in conditions of high stress, poverty, and shame. Bill C-269 was a Private Members' Bill which sought to lower the entrance requirement for EI from 595-630 hours they currently require to 350 hours in all

regions, as well as to eliminate the 2-week waiting period, raise the benefit level from 55 percent to 60 percent of weekly earnings, and base the benefits on the best 12 weeks of earnings. While this bill made it to a second reading it did not pass and become an amendment to the EI Act¹⁷. Getting enough hours to receive EI has become a significant problem for fish processing workers, including those who are high on the seniority list. A union fact sheet that was sent out with the video states: "Most of us used to work 6 months per year; 20 % used to work year round. Now most of us work 2 months a year; 5 % work year round". Almost everyone I spoke to mentioned EI and their associated difficulties qualifying for benefits, in the following quotes two workers and one plant manager describe this in detail:

FW: Yeah, they don't call enough people in for one thing, and then we don't get enough work cause a lot of people didn't make their hours again. Like the ones that made it last year some of them didn't make it this year. Like that's sad because you want to see everyone get their hours. And well, it doesn't, no it hurts me to see that because I would rather have everybody doing the same things like being able to collect their EI in fall and winter and not go on welfare, because welfare is no way to go and there's no work in this town for very many people. There's just no work anymore, so there's less people working or maybe, to put it this way, you still need a hundred people to the job, but instead of working 10 days they are working 2 days. And it's for the whole summer like, it's just like, there no work in the industry anymore, and for a lot of people and especially with the First Nations, and a portion of the white people too, you could work from May until mid-September, that's four months, get enough for UIC and stay home all winter, and make good money. Now you can't do that anymore because you can't get enough time in to get unemployment insurance.

PM: It's harder for people to make a living out of the fishing industry. And so, people are no longer make their EI; there is a very small percentage who can make enough time to get EI hours from here, so a lot

¹⁷ <http://www2.parl.gc.ca/HousePublications/Publication.aspx?Docid=3084658&file=4>

of the people working here are on social assistance, and that has its own problems associated with it, as there is not the incentive to come to work there, so we have a fairly high rate of absenteeism.

FW: It's odd, it's just you know, it's the same as UI, all the money that they're stealing from those poor people that can't collect, 60 billion dollar surplus, it's not, well they put it into general revenue, but these people are being denied. That's stealing. You know, you make it to fit an area, besides they go all the way to Prince George and Farling to figure out the Prince Rupert area. It's just humungous, I mean you got all the oil workers and that. I mean, yeah, they have a boom there but it ain't booming here, hell people can't pack up [and] leave cause they got no money. Hell how do they relocate to go somewhere else to work when they are not going to be any better off. It's just bizarre. And it's so frustrating at times that you just want to choke somebody... No, I think the biggest stress nowadays on people is the finances. How are they going to make it through now that they're not getting the UI? I mean even this year for us, all of the tradesmen are left kind of scrambling because the income is down.

The workers, as well as the plant managers, identified that while there has been a decrease in the number of days worked in the season, they still require the same number of workers to run a shift. The last quote from a fish processing worker also points out that the large geographic location that is used to calculate the level of EI (for Prince Rupert it includes 2/3 of BC) includes areas that are economically strong (the oil and gas towns in BC) and areas that are economically weak (the coastal fishing, forestry, and mining towns) to the detriment of workers in the economically weaker areas. This detriment is due to the fact that oil and gas towns drive up the regional employment figures, driving up the hours needed to qualify for EI (personal communication with Union representative). One plant manager I spoke with clearly identified the frustration on his end with the system, although from a different point of view. He felt that some workers not only did not want to work, but also if they did choose to work, it was only to get their

hours and then they wanted to take the rest of the time off.

PM: Well it's, I hate that one "not enough hours," because we can't get enough people to work. But that's the other plants. The EI system right now is what's got everybody so screwed up. I can't remember what the hours are, but they are allowed to make so much money per week, and once they go over that, then they can't collect EI. And they even, for the people that don't have hours, there is nothing to say that they don't come down. And the only mistake they make is they say, 'Oh I need forty hours of work for my EI.' We look at that and say, 'Okay we are going to have this person for forty hours, what good is it?' I am going to do up all this paper work, all this training, the work safe stuff, bringing them around the plant and doing all this stuff for them, and they are going to get their forty hours and then they are going to quit on us.

We want someone who is going to want to work. Stick around, stay on our seniority list, stay around for a couple of years but... There's Canadian Fish workers, there's Ocean Fish workers, there's a bunch of filleters that used to fillet because they did years ago. I tried to get them over here, because that's the hardest part, filleting. I asked them to come over, fillet for us, go back to those plants in the summer time if they want and come work for us in the wintertime. 'Ah no, I get my EI in the wintertime.' So, it's up to them I guess.

While most of those whom I interviewed discussed the lack of work, a few did mention that there was an issue with getting some workers to come to work. The first plant manager associated absenteeism with the increase in reliance on social assistance. Other managers mentioned drug and alcohol abuse as factors that interfered with regular attendance at work. As well, historically, the work has always been seasonal, and many workers, especially women, stayed in the processing industry because it enabled them to earn a decent wage but also to have the majority of the year off to cater to their nonpaid work – mainly household and childcare duties (Stainsby 1994). Another factor that can interfere with attendance is the increasingly low pay and low stability of the work in the fish plants, which does not provide much incentive to work. Some of these, or a

combination of these factors (plus unknown ones), could explain the resistance of certain workers to working year-round without collecting EI.

For a majority of fish processing workers I interviewed in Prince Rupert there was a desire to increase the length of the work season. One way to achieve this would be to curtail the amount of outsourcing of processing and maintain as much processing as possible in the Prince Rupert plants. While I have already touched on this previously, it is worth noting the pivotal role of the union in helping to achieve this (UFAWU –CAW 2007). Both of the following quotes discuss the move to processing hake in the fish plants, which was actively sought out by the fish processing workers as a way to provide more work in the plants. The first worker discusses how this has increased the working hours:

FW: They were way behind us on that, but you know our workers, working with the union, um we found some things that created a lot of extra work, and this is for people that you know a large number of people that during the winter would be sitting at home doing nothing, and in a lot of cases that didn't even have enough EI hours to qualify. They were working, they were making some money, so it was actually very successful; it worked out good.

In the next quote the fish processing worker discusses the introduction of hake in the processing plants implying that this was done not to increase work for the workers but to help save the floundering plants. He also points out that currently the fish processing workers are struggling to such an extent that they are no longer willing to risk fighting the companies.

FW: But now they have beaten them down again so much, do they have, do people have time to fight? I don't know. They have to worry about hurrying up and getting out and getting a job or something. You go to Alberta you'll see half our cannery out there and they're not coming back. So you lose that skilled workforce. So now what do you do? You've got to start training again right, and

it becomes very annoying because you know there is work that could be done, but there's just, I think there's just not the political will by the company to do things, and now they started with this hake, and why did they bring it in? Because they're starting to realize, 'Hey, our ass is on the line now too.'

Another issue that the union was involved in was changing the gender division of labour in the fish plants. The last studies to look at the fish processing industry in BC were conducted in the late 1980's and early 1990's (Stainsby 1994, Muszunski 1987, Marchak 1987). Since that time both the union and the plants have negotiated a memorandum on equal access in the fish plants. This process took almost 10 years to complete, and involved slowly combining seniority lists that had always been divided by gender.

Gender

The gender division of labour in the fishery as well as in the fish plants has existed since the commercial fishery was in its infancy. This had gone largely unchallenged and unchanged until the early 1990's, and up until then women and men worked specific and separate jobs. This gender division of labour was consistent in all the plants in Prince Rupert. Women normally worked on the "floor" standing for long hours, in one position, repeating the same actions, trimming, filleting, grading, or removing roe – also called popping, at high speed. Men, on the other hand, usually worked fixing the machinery, driving the forklift, or in managerial positions, which allowed them not only to move around, but also to take breaks when they preferred. It was also the men running the machines who would set the pace for the women (Stainsby 1994). One fish processing worker I spoke with described how the plant he worked in was divided.

FW: When I started it was totally segregated. Women, the only thing

women did in the fishing industry, well there was some work in the canning part of it, in a different area there, but I have no experience with that, so I shouldn't really talk about it. In our plant women filleted the groundfish, you know the different kinds of sole, cod, the different kinds of rockfish, that's all they did. Well no, that's not quite right, they also popped the roe, the herring roe. That was their work, everything else was done totally by men so totally segregated. We unloaded and graded and processed all the salmon, all the halibut, all that. Women were not involved in that at all.

While the 1990s seems late to allow equal access to jobs in the fish plants, for the most part women as well as the men actively resisted it. As the union representative describes, these jobs were among the only jobs that were guaranteed for women, especially native women, and the workers were hesitant to jeopardize this.

KI: Because of the gender issues for years, women weren't allowed to apply for certain jobs, and so the older women don't hold any of those jobs, because they weren't allowed to apply for them, and by the time they were allowed to apply for them they didn't want them. And so we had separate seniority lists at all of our plants, men's and women's seniority lists and the vast majority of workers in our plant were women. And women resisted merging the seniority lists because they didn't want men to take their jobs. It was the only guaranteed job for a woman, so if you're a First Nations woman that was the only job you were going to get, you weren't going to work in the stores in town, you weren't going to work in the mill, because women in general didn't work in the mill, right? And you weren't going to work, normal, white women jobs, they weren't available to you. And so, that was your only guaranteed job. And so I used to go to the BC Federation of Labour and hide under the table because they would talk about equality, and women did not, they felt they were more than equal, they felt that the seniority lists gave them that protection.

Resistance to change also came from some men who were worried about losing their jobs to women. These men argued that women were usually bringing a second income into a family, not the sole breadwinning salary, and for this reason men should have priority on the higher paid and more secure jobs.

FW: [A]nd there was quite a bit of resentment from the employees in the plant because some of them might have less seniority but they have a certain amount of hours and then there was a lot of women who were discriminated against because they were only allowed to do certain jobs in the plant. Whereas a kid off the street, he could work anywhere, and if he was able to grade, then he would grade and I...I kind of fought for the women. And there was one person, because of the majority of the women that were in the plant had husbands that worked in the pulp mill or who worked fishing or had a second income or whatever, and there was a few of them like, 'I don't have anybody but myself for income,' and there was other people in the same boat as I am but they said, 'If she comes in my department I will be sitting at home.' And one meeting there was three people that said they were going to file a human rights complaint against the company for unfair practices or whatever and anyways it didn't really, we didn't really know how to go about it or whatever but it changed.

The gender division of labour changed with the gradual merging of seniority lists, and with one or two workers of the opposing sex choosing to work in a traditionally male or female position in the plant. The change coincided with the increase in mechanization in the processing plants in the 1980's, which mostly eliminated women's jobs as machines now gutted and trimmed the fish (Stainsby 1996). Change was also encouraged by a younger group of both men and women who were willing to work in nontraditional jobs, just as women driving a forklift (sometimes called a tow motor).

KI: Then what happened, there was a group of younger women that started coming along saying, 'Fuck the protection, I want the job, this doesn't give me, I don't want to work just during the summer, I want access to those jobs that let me work on a year-round basis. I want to drive tow-motor, I want to be on the unloading crew, I want to grade fish, I want to do tally, I want to do all these other jobs' that were only men's jobs. And the other thing that happened, was that women's jobs became mechanized, and so that took place all during the eighties. So at the same time that women's jobs became mechanized and a new generation of women began working in the plant we actually had a letter from a guy whose son had applied for a job, and was refused based on his gender. He was a man, so because it was a good wage but they weren't hiring men to do women's jobs, and so they were hiring ten women for every man and so because he was wondering why his sister gets hired and he doesn't, and

he's willing to do that job. Well men would be horrified that he would be willing to do a women's job. And it wasn't, we didn't start the process of merging the lists until the eighties and the first successful plant we merged at, and we just did it little by little by little by little by little, was Ocean Fish.

Workers at Oceans who witnessed the change over from segregated work tasks based on gender to more mixed job tasks discussed their memory of this transition:

FW: One lady was pretty strong willed and that, in that she was pretty upset in that men were only doing certain jobs. She finally put her foot down and went out and started doing it. I don't recall what job it was, but she did it pretty good. And after that women started doing, uh, just men's jobs, or uh, yeah, men's jobs.

FW: In the '70s it was just most of the hand filleting was done by women, and then the two grading tables, it was actually all men. They wouldn't let any women out there and I think one of the girls in the '90s wanted to go out on the boat and unload. People thought he (the manager) was prejudice; he was reluctant to put women on the boat. And then the union and the shop steward, in '89 I think it was the union and in '89 there was a memorandum and the union and the company were supposed to negotiate a way to eliminate the department seniority.

FW: To just go through the history of the plant or whatever, like our old plant manager, like I have spoken highly of him, but one drawback, extremely traditional, Italian. You know basically women should just basically not even be working; the man should work and support and she should look after the children, that's their job there, they should not be unloading boats, they should not be working on the salmon. He really resisted. It was quite a fight; he finally did come around and accept it and got comfortable with, but it was a struggle. It just didn't happen like you know we just propose that we should do this, that we should combine the seniority list, and we should work and if you're not physically capable...I have seen some women do a way, way better job than some men. You know some men are just totally useless. I remember this one woman, she was a deckhand on the boat, she outworked at least 95 percent of the men on the boat. So you know it should be open, you're capable of doing it, you do it you get paid the same.

While seniority lists in the first plant were merged in 1991, it was not until 1998 that the

last plant had fully merged lists and was willing to allow women and men to work the same jobs. Once this was finally agreed to, the union then had to fight for the right for the employees to opt out, or “sign off” on a job that they felt was too hard, as management was framing the equal access to jobs in such a way that if women wanted to do the same jobs as men, then they would be required to do so. The unions stance was not that women should have to sign on, but that all jobs would be open to everyone, and everyone would have the option to sign off if they felt the job was too physically demanding. As discussed below, this took quite a bit of effort, but this right was eventually won.

KI: No, the union had an equal opportunity committee, it was just a committee and they had one at every plant, and so if you have been talking to people at Canadian Fish they will talk about their Committee and so will Ocean Fish but they were committees the union created in the plant to do this merger. Canadian Fish, it was even slower than that and it wasn't until 1998 that we were able to merge the lists entirely. So I mean that is when we finally had it merged. We had seniority plans that required it to be merged prior to that but the company did not want it, they would not call off a merged seniority list, they refused. And it wasn't until we said it is going to the human relations, human rights, and we launched a human rights class action suit complaint and got told we couldn't do it. But the company didn't know that we got told that we couldn't do it, so we waited around, and so they agreed to have an educator come in and talk to shop stewards and themselves about the law and about discrimination and about human rights, and about rights of women, and then we finally enforced, the company finally agreed. And you know we have equal opportunities work that women had to sign on, and we said, no, women don't have to sign on, they can sign off if a job is too hard. Anybody, male or female, can sign off if a job is too hard. The company didn't want to do that, they wanted to force the women to sign on, that was one of the issues, so if you wanted to do a heavy job you had to sign on, but then you had to do every heavy job in the plant. So they would dump 80 pound boxes, 100 pound boxes in with turning a screw driver. And that was sort of the last big fight. We called it the EO list. Whether women had to sign on to the EO list or whether all workers in the plant could refuse to do a job that they were unable to do physically, and we finally won that.

Ten years had passed between these events and the time when I conducted my interviews, and most people identified that both men and women are working the same jobs in the plants.

FW: But you know it's kind of, it's really interesting in the plant though, see it was those jobs that only the women used to do, like the patching or the washing fish and stuff, and men wouldn't. Women got stuck with those jobs in history because the men just wouldn't do them. And now you go in there and you see men and they're up there doing the patching and all those traditional jobs, all those so-called 'traditional' jobs, and that's something you kind of need to see.

It was, however, also apparent from talking to the workers, that there still existed a gender division of labour, with the majority of women still working in the processing jobs that are lower paid and considered lower skilled. Women also faced obstacles in the form of resistance to being taught the higher skilled work.

FW: Yep, there's still a lot of the old people there who still have that dinosaur attitude. Like my partner that works with me on the iron butchers, him and I are the only ones that have female tech support helpers - you know "that's men's jobs." Yeah ok, keep that attitude ok, whatever. I can't if they got the seniority. They're going to take it, that's all I can do, I can't get them stop them, or make them change their view but, I can make sure everyone gets an equal opportunity at it.

I: Ok. Is there any areas in the plant where just females work? Or just males?

FW: Right here. It says male/female (pointing to the fish plant map), it's mostly, during the herring season it's mostly females in there, I am not sure what they do, they take samples of the fish I think. But other than that the butcher room is male-female.

PM: We've probably got more females than males here. For filleters, we've definitely got more female filleters than males. Yeah, we've got, uh, 22 filleters and five, four of them are males, the rest are females.

FW: I find they're the ones that work, like, different work than the men. Theirs is harder and they're, the women, are always standing in one spot for hours. The toughest thing is also just standing on the cement for hours doing your job, you know, without moving around, and the repetitive thing is something else again.

Thus, while changes have been made to allow access to jobs for both men and women in the fish plants, this came about only when the jobs became so scarce that women, especially First Nations women, were willing to risk losing their guaranteed employment and the priority became getting any job that was available. While for men, this enables them to access more entry level jobs in the peak periods, for women, it offered the possibility of ensuring a higher paid, more stable and secure job. But, as the interviewees discussed, this has been slow to change, and has not come without resistance and efforts by both female and male workers to protect existing jobs.

Because women make up a majority of fish processing workers but are more likely not to work in year-round maintenance positions, they have generally been more negatively affected by the shortened seasons, increased mechanization, and cuts to EI. As a result, many of the same issues that were identified in earlier studies are still relevant. For example, women are still more likely to work in repetitive, undervalued jobs than men, such as grading and washing of the fish, and are a more flexible workforce, being the first ones to leave shifts and seasons because their work does not involve maintenance of the machines (Stainsby 1994). Women's jobs are also the first to be replaced by improved technology and mechanization, and they are increasingly experiencing a less stable and more sporadic and "flexible" work situation than men. As Barndt (1999) points out, this is common in post-Fordist models of production which are

geared for global processing, marketing and increased profit margins.

Thus, for the fish processing workers in the Prince Rupert plants, their work has been organized by social concepts of gender or “women’s” and “men’s” work, with women more negatively affected than men by the restructuring in recent years. The challenges associated with changing this have also been influenced by gendered (and in this case racialized) employment opportunities in the community, as well as responsibilities in the home. Agarwal (1998) states,

[I]t is women of poor rural households who are most adversely affected...the nature and impact of these processes are rooted interactively, on the one hand, in ideology – (in notions about development, scientific knowledge, the appropriate gender division of labour, and so on) and, on the other hand, in the economic advantage and political power predicated especially, but by no means only, on property differentials between households and between women and men (213)

Resistance to women accessing the same work tasks as men in the processing plants still exists, as most women are still unable to fully and easily access the highest paid and most secure jobs in the plants. And women, especially First Nation’s women, rely on fish plants as one of their only guaranteed employment options. I will expand on this more below in my discussion on the specific context of First Nations workers in the plants.

First Nations

While over 50 percent of fish processing workers are women in Prince Rupert, over 60 percent of fish processing workers are aboriginal compared to about 30 percent in BC as a whole (Gislason 2007).

KI: Well one of the things that we haven't talked about is really the makeup

of shoreworkers and fishermen. Seventy-five percent of our shoreworkers are First Nations, probably 20 percent have been immigrant and probably 10 percent have been white people.

The proportion of First Nation employees in the plants has been increasing as the community of Prince Rupert continues to witness a population decline. As described by the following plant manager, it is the First Nation peoples who can not afford to leave, or want to stay for cultural and familial reasons, and have few options in the community due to racial barriers, and thus their population is increasing in the community as other ethnic groups leave for work elsewhere.

PM: Our, the percentage of First Nations working in the plant has actually increased, which, if you look at the percentage of First Nations in the community, the percentage is higher now, because those are the people who have stayed as Rupert has downsized. And, so we don't have quite as large of a mix as we used to have.

Members of the Tsimshian First Nation are most common in Prince Rupert. This First Nation includes the Nisga'a, Gitksan, Ts'msyen (Coast Tsimshian and Skeena River Tsimshian), and Gitxaala peoples, as Prince Rupert was built on their traditional lands. First Nations from the Haida, and Heiltsuk bands are also common as their lands border the city (Gislason 2007, Newell 1993, Menzies and Butler 2008).

As discussed in the previous chapter, BC's First Nation groups have always been involved in the fishery, and it provided one of the only sources of paid income for them for many years. Therefore aboriginal people, especially those still living in villages and on reserves, have been severely impacted by fishery restructuring. First Nation women have been significantly impacted due to the excessively limited employment options that exist for them. As the union representative pointed out in a quote in the previous section,

fish plant jobs were the only jobs for these women as they were not hired, or considered hireable for any of the other major employers in the city. This lack of employment options created a dependence on their husbands and fathers to support them that had not existed prior to the restructuring process (Wright 2008).

The significance of the fish processing plants was made evident in many of the interviews I conducted. Many of the First Nations workers I interviewed spoke of their family history in the fishery, as well as in the fish plants.

FW: My whole family is from the fishing industry. My grandfather was a Haida chief from Masset, and all my family from Masset owned seine boats. But when the companies and the banks and everybody ganged up to get the boats away from them, he was one of the few that actually managed to hang on to his seine boat. Masset used to have the boats made there and they had the biggest seine fleet in British Columbia, [un]til the companies and the banks got together and took it all away from them. See cause the problem on the reserve is they can't use any of their property as collateral, so in the end they end up losing everything. But he managed to hang on, kept it until the day he died, actually now that boat is owned by a Haida in Alaska where the Haida nations are also from. Yeah, it's a packer instead of a seine boat. But it's kind of nice to see that it's still owned by a couple of our own people. Yup, my mom worked for the plants, my mom worked for the union, and she's the one who actually got me involved in the trade union movement. Yep, when I was thirteen she used to drag me down to the union hall. The first thing that we ever worked on was when we lost eight of our cousins on the, on one of the fish boats that flipped during the herring season. And she was actually doing the documentation, and she was having a really tough time dealing with it because, that was all her cousins in our family. And I ended up doing that presentation for her.

The next quote, while it exemplifies a miscommunication between me and the interviewee, also points out that not only does this worker (who identifies as First Nations) have a lot of friends and family working in the fish plants, but also that he feels

that this is good place to work – a sentiment that was not expressed by other interviewees.

I: Ok, um, would you encourage friends or family to work in the plant?

FW: Yes, I do. Quite a few actually.

I: Oh, do you? How come?

FW: I have quite a few that work in the plants

I: Do you encourage your friends and family to work, *would you* encourage you friends and family to get jobs there?

FW: Oh, yeah, yeah, I would.

I: Yeah, and why is that?

FW: Good money, good work.

Family history and involvement in the fishing and processing industry were key elements of attachment to the industry among First Nations but for some the connection was deeper and more personal:

FW: In the industry, the people, umm, you know it's funny, because I mean fish, which has been a part of my life since I was a kid, I was three years old and I can remember jarring and canning fish with my mom, smoking fish. And I went to school, you know, it, one of my favorite classes ended up being the marine science program because we were doing salmon on the Hays Creek. And when I decided to go to college I ended up taking fish biology; it was something that mom could just never understand. She'd say 'Geez all it is, is fish, fish, fish.' Even my fiancée owned a fish market. My mom would have laughed at that. That's kind of funny. But, no it's just the industry, there's, to me, I don't know I guess there is something between me and the fish, spiritually I guess. You know there's a connection there, that for some reason I can't live without fish. I mean I go out food fishing every year, because to me that part of me, who I am, what I am supposed to be doing.

The importance of the fishing industry to First Nations people was tied to not only their traditional practices and spiritual beliefs but also the economic opportunity that it offered them. Pinkerton (1987) described the fishing industry as an “enclave” that allowed them access to credit and secure employment that they could not gain anywhere else (257). As previously mentioned, First Nations were more severely impacted than

non-indigenous fishers as governments restructured the industry, and their rate of participation has been on a steady decline ever since, resulting in unemployment in some communities for the first time in history (Menzies and Butler 2007).

FW: It's funny, I like the job, but I am finding now that we're spending more and more and more time fighting to be able to put people to work for, you know, we'll spend six months fighting, longer than that, so people can get a few weeks work. Because all of the politics and, but it's worth it you know, and it's worth it to the people that you're working with... Because you see what happens when they don't have it, have any avenue, you know, domestic violence, the kids, you know, the family crumbles, it falls apart. You know that's not right. It really isn't, you look at, when the Mifflin plan came through, they did the fleet reduction. The commercial industry said no, it's not the right way to do it. And they went through with it anyways, area licensing and the whole ten yards. The community of Port Simpson, the fleet was wiped out because they can't afford to buy a license down south. If you're living on the reserve, and you know it's one thing that's really always bothered me, you know when you raise it people give it a little, little bit of attention, the child suicide rates in those villages, it's right through the roof, and you raise it, nothing is done.

Also being discussed in the above quote are some of the social and community effects of restructuring. Substance abuse was identified in my interviews as a problem largely affecting aboriginal peoples working in the fish plants. Substance abuse in First Nations communities is far from a new thing, and can be understood in terms of the amount of destruction to their communities, languages, customs, spiritual beliefs, knowledge systems, and economic independence and prosperity – largely through colonial processes that continue to this day (Frohlich et al. 2006, Samson 2003, Shkilnyk 1985) I am not implying that all First Nations people have substance abuse issues, or are necessarily victims of the colonial process, or that it is only First Nations people in the fish plants who have substance abuse problems. But in the interviews that I conducted, this was the framework within which this issue was discussed. In the following quote

some hesitancy about how to discuss this topic comes across. What is also being discussed are the specific issues this plant faces with its current workforce.

PM: There are more First Nations working in the plants and, umm, I'm trying to find political correct way of saying things. There is a lot of fetal alcohol syndrome in Prince Rupert, and the last couple of years I have noticed the people coming to apply for work, the younger generation, their children are now coming to work, and so there are some cycles that are creating. And there's not very many places that are available for someone who is not highly skilled to work and this is one of them. So we do have some challenged people who work here. Probably a higher percentage than a lot of other industries.

I had one interviewee, who identified as a First Nations person, give a different perspective on this issue. This worker describes a situation where she left work after being accused of being drunk.

FW: Uh they're not very, what would you say, they are not very, they don't listen to people half of the time and they get you mad. Like last year my girlfriend, it was in April that was when I finally decided to start doing things again after losing my husband. And my girlfriend invited me out to Port Ed, because her and her husband was back from Vancouver because her husband was down at the cancer clinic. So I went out there, and we had three or four beer. Next day I went to work nobody smelled my breath, like you couldn't even smell it. And then the supervisor comes up to me and she says, 'You got to go home.' And I said, 'What? Why?' And she says, 'Because you got the booze breath.' And I said, 'No I don't.' And everybody looked at her and said, 'No she does not.'

I: Did she still send you home?

FW: Yup, she says we know you just lost your husband and if you want to go to counseling or something like that. I looked at her and I said, "Excuse me," I said. "No. I am not an alcoholic, I might have lost my husband and I am not turning to booze. I've got my kids and I've got my grandchildren." Because she was going to give me a number, to call for counseling - pshwhew. I walked. I wouldn't even fight it. Nope.

This quote highlights the complexity of the issues of substance abuse, and race in these work environments. The system in place to send someone home and refer them to a

counselor¹⁸ seems to make sense, but when someone feels they are wrongly accused, or more likely to be accused because they are First Nations, it could be embarrassing and degrading, especially if it is done in public.

Due to the strong historical, cultural, and economic significance that the fishery and fish processing have for aboriginal peoples in Prince Rupert, they have been among the hardest hit by recent restructuring. While there may be an increase in employment opportunities for some, as processing plants struggle to find workers for the busy seasons, overall these workers would not be receiving much work, as they would be lowest on the seniority list. Given that those highest on the lists are struggling to make their hours, those at the bottom would be struggling that much more. And, due to their own history of colonization within Canada, they have separate and complex issues that are compounded by this restructuring process. These include high rates of poverty, illness, substance abuse, physical and sexual abuse, suicide rates and minimal access to capital or economic independence as First Nations who live on reserves are not able to use property as collateral (Frohlich et al. 2006).

Ethnicity/Immigration

While 75 percent of the fish processing workers in Prince Rupert are First Nations people, 10 percent are made up of people from “other ethnicities” (UFAWU-CAW 2007). This pattern has its roots in the requirements for cheap labour associated with the way this industry developed. In the beginning these ‘other ethnicities’ were composed of

¹⁸ There could also be cultural preferences in the types of healing methods used. Some studies have suggested that many First Nations prefer traditional healing methods, versus western European ones (See Niezen 2000).

Chinese men and Japanese women. This changed as immigration policies changed and people from many different countries and ethnicities began to immigrate and find work in the canneries. The canneries continue to hire immigrant workers who have very little education or English language skills, mostly in the urban centers of Vancouver and Steveston, but one of the fish processing workers I interviewed who was employed in Prince Rupert shared a similar experience.

FW: My job was, to begin with I started in 1960. You were not born, uh, that was about the only job I could find, because I was coming from overseas, I didn't know the language.

Women and men from other visible minorities, such as Japanese, Chinese, Vietnamese, East Indian, and non-visible minorities, such as Italian, Caucasian, and other European women are employed in Prince Rupert plants and those elsewhere in BC (Gislason 2007, Newell 1993). This is exemplified in the following quote:

FW: Just Canadian. But if anyone gets particular I tell them I am First Nations. Like I'm, I know I am not prejudice, because I look after in an afternoon shift, East Indians, Filipinos, Chinese, Japanese, Italian, First Nations, there is all nations in that cannery.

PM: And there are all different ethnics, there's Portuguese, there's Italians, there's Natives, there's East Indian, so we've got a real good mix down there. We welcome everyone.

The mixture of nationalities in plants is a result of the ongoing process of plant consolidation and merging of seniority lists. When Prince Rupert's fish processing industry was in its prime, plants were usually segregated somewhat by nationality as recruiting was often done through word of mouth, and thus people would work in the plants with their extended families and close friends, lending to more homogeneous working groups (personal communication with union representative). One processing

worker I spoke with discussed her experience in the fish plants as a Japanese woman, and the unique issues associated with her ethnicity.

FW: We were treated like boys I guess, some of us, me especially, being my nationality and working with the same nationality, right, although I was not born in that country, their expectations were a little bit higher. Yeah, for me, anyways. Yeah, but if they were nice it's different, but if they got ignorant, then I just told them where to go. I'm Japanese you know, for Canadians it's a different story.

Thus, the demographic of fish processing workers in Prince Rupert is for the most part, middle-aged aboriginal women, but men and women from a variety of nationalities also work in the plants (UFAWU-CAW 2007). A majority of these workers have less than a high school education, but some, especially men, have trade certificates or college education (personal communication with Union representative). For some, English is not their first language. Fish plant workers usually worked in plants because they were not able to get work elsewhere, or they because had a strong family/cultural history with the fishery which provided connections to get hired, both historical and currently (see chapter 2). Fish plant work was a good job. It paid a relatively high wage, and offered flexible labour for women who had other responsibilities as well. It also offered guaranteed employment that was not found in any other industry for aboriginal as well as immigrant workers. Unfortunately, these workers are among the most vulnerable populations of workers in BC due to the fact that the majority are not male, white, or highly educated and the majority of them are in their forties and fifties, and thus changing occupations, especially when they have little education or alternative job experience is extremely difficult. While this demographic of workers has been the first to experience job loss, the

current BC fishery is in a state where even those with high seniority and skilled jobs in the plants are concerned.

Conclusion

In this chapter I have traced the interactive political, environmental, industrial, and social restructuring that has occurred in the BC fishery, fish processing industry and Prince Rupert from the 1980's until 2008. I have shown how policies implemented by governments in response to stock decline resulted in the reduction of the fishing fleet largely in rural coastal communities with significant First Nation populations. This restructuring, combined with increased global markets for seafood, increased technology, and consistent merging and consolidation of fish plants in Prince Rupert has reduced the number of employees in the fish processing plants, affecting women, and First Nation workers in particular, to a larger extent. As the stocks continue to falter and there is an increase in aquaculture along the coast, even those workers currently employed with high seniority are working less. This has contributed to an overall decline in employment in Prince Rupert, and has impacted the workers occupational and individual health, as well as the health of the community. Due to the gender division of labour, this has had a greater effect on women. The next chapter will apply a social-ecological framework to examine the health of fish processing workers in this context of interactive restructuring.

Chapter 4 Restructuring and Health

FW: Everyone is in there for the same thing right, make a buck. Get the hell out of there safe. But you know.

This chapter is about health, specifically the occupational health and safety and individual health of Prince Rupert fish processing workers, as well as the health of their community. I am applying a social-ecological model to the occupational health and safety of these fish processing workers because health and safety is intricately linked to larger socio-political trends and norms. A social-ecological framework in this context refers to a framework that includes human, social, and biophysical dimensions of health. As Dolan et al. (2005) explain, this approach is interdisciplinary and recognizes the interconnected nature of human, social and environmental health. This multifaceted and comprehensive approach to OHS is argued for by Abrams (2001) who states: "Industrial hygiene is a subject in which the medical, economic and sociologic aspects are closely interwoven, and it requires a broad grasp, as well as an intimate knowledge of the conditions to avoid the dangers and correct the injustices to which people who work are subjected" (34). Thus, the factors that impact workplace safety and health go beyond risks, inspections, standards and prevention, to encompass broader sociological aspects including psychosocial effects (Nordander et al 1999, Nahit et al 1999, Hansson et al 2000, Leclerc et al 2004, Palsson et al 1998, Howse et al 2006), physical and work environments (Jeebhay et al 2004, Bang et al. 2005, Massin et al 2007), government engagement and regulations (Sullivan and Frank 2000, Tucker 2006), health care professional training and attitudes and access (Hopkins 2006) , household and community

context (Chung 2000, Gnam 2000) and wider economics including fluctuations in local as well as global economies (Abrams 2001, Ostry 2000).

Therefore in this chapter I will, using interview data as well as statistical data from WorkSafeBC, discuss the key injuries, illnesses workers face in this industry. Then, I will look at how fish processing workers in Prince Rupert and key informants talk and think about not only fish processing workers' occupational and individual health and the health of the wider community, but also how these appear to have been affected by the institutional, industrial, environmental and social restructuring processes.

4.1 Occupational Health and Safety

The major OHS risks that have been identified in seafood and fish processing plants globally are allergic responses, such as asthma and skin irritations, as well as non-allergic respiratory symptoms, and musculoskeletal disorders and injuries from slips, falls, cuts and collisions with forklifts (Jeebhay 2004, Narit 2001, Palsson 1998, Nordander et al. 1999). Other risks include those posed by exhaust and diesel fumes, cleaning products, mold, cuts, and noise (Bang et al. 2005, Jeebhay et al. 2000, Massin et al. 2007). The social-ecological aspects of BC's fish and seafood processing industry that make it a potential target for increased OHS risks include resource scarcity, the economic downturn, associated industry restructuring including mergers, job losses and employment uncertainty, and the increased complexity of work processes found in multi-species plants (Abrams 2001, Chung 2000, Gnam 2000, Ostry 2000, Sullivan and Frank 2000, Tucker 2006).

While it is important to look at what health hazards exist within workplaces, and what systems are put in place to deal with them such as regular inspections, health and safety standards and prevention measures, it is also vital to look at the broader societal structures. It is important to determine what kind of OHS regulatory boards and compensation systems are in charge of industrial and work safety. In particular, how claims are made, the common recognition/response to OHS claims, who/what is recognized in the claims process and who/what is not, whether OHS diseases (such as asthma) are being recognized at all, and how gender, age, and race may shape the outcome of OHS claims recognition. In looking at these aspects of workers' compensation systems, researchers can achieve deeper insight into why certain occupational diseases and accidents are reported more than others, and why some people more than others are more likely to report injuries. In turn, this can provide a more accurate picture of what occupational health and safety hazards exist and what barriers there are in reporting them (Gnam 2000; Sullivan and Frank 2000; Chung et al. 2000; Tucker 2006).

Health care professionals can play a significant role in the recognition of occupational diseases and injuries, as they are often the first to receive OHS-related complaints from workers. As such, the training health care providers receive and their awareness of what occupational diseases and injuries workers may encounter are key to their ability to adequately diagnose OHS-related ailments. Importantly, medical recognition of occupational disease has been shown to have an impact on what is reported, the rate at which it is reported, as well as the amount of compensation awarded to the worker (Hopkins 2006).

While history shows how science, medicine, economics, political climates, and legal systems all play an important role in OHS (Abrams 2001), shifts in work, through changes to demographics, job descriptions, mechanization and/or restructuring, also alter the health and safety risks of a particular job (Ostry 2000). The importance of this for fish and seafood processing is that the BC fish processing industry is constantly in flux, undergoing changes that are closely linked to global markets and resource degradation, as discussed in the previous chapters.

Women are usually among the first to be laid off, hired as temporary or contract workers, and are the most likely to occupy what are understood as low skill level positions with the least amount of pay (see chapter 3). The implications of this for women's OHS is that women face increased health risks and may be less likely than men to report work-related health issues over concerns that their illness may not be recognized by the compensation board, that they may lose their jobs and, where work is intermittent as in seasonal employment, out of fear they will lose their EI eligibility (Howse et al. 2006). As well, there are increased health and safety risks among new and casual labourers due to their relative inexperience with, and lack of knowledge about, the health and safety risks of the work environment and tasks (Quinlan & Mayhew 1999; Boyd 2001). Women also face loss of secure income and benefits and may lose access to, or income for childcare (Dolan and Thien 2008). These larger economic and social factors affect OHS in that they can increase workers' stress and anxiety levels, and place workers in positions where they may have to choose between their jobs and their health. This has been well documented within the OHS literature (Rennie 2005; Quinlan et al. 2006; Whyte 2006).

Quality of life (QOL) and work are interrelated. When our health is being jeopardized at work, this negatively impacts on our quality of life outside of work and vice versa (Barnett 2006). Similarly, this has implications beyond just the workers' quality of life, as illness can have ramifications for family members and even entire communities in the case of small, single-industry towns (Leyton 2005; Rennie 2005)

The natural environment is also a significant factor in OHS. Environmental restructuring intermingles with globalization, changing market structures and associated neo-liberal changes in policy to shape the broader context for work (Power 2008). This relates specifically to the OHS of fish processing and is related to other aspects of OHS such as gender, age, class, restructuring, politics and economics. There is a gendered relationship to natural resources within fishing communities due to the gendered division of labour (Dolan et al. 2005). As discussed, women are more likely to work in processing plants than they are to harvest the fish, and women within fish processing plants generally hold lower seniority positions and make up a more flexible work force. These workers tend to be middle ages, thus older than the average work force in BC, and while they make a good wage, due to the seasonal nature of the work, are usually hovering around the poverty line (Stainsby 1994). Industrial restructuring usually coincides with environmental restructuring due to overexploitation or collapse of the resource. This affects the nature and stability of the work available, which has been shown to negatively impact women's OHS in some cases (Messing 1998, Chung et al. 2000). For example in the fish processing industry in BC it has been shown that women were the first to be laid off, and the last to be rehired, due to the sexual division of labour

that delegated most of the jobs performed by women to jobs that are directly tied to the fish stocks, so only when the fish were in were they able to work (Stainsby 1996). Also outside factors such as stress, and the double day (where women are responsible for the majority of child care and home care work on top of their paid work responsibilities) are factors that contribute to an increase in women's occupational health risks, more so than for men (Messing 1998, Chung et al 2000).

BC Seafood Processing Industry

Taking into consideration the OHS diseases and injuries that have been identified in the body of literature on OHS in seafood processing plants, as well as the larger economic, political and sociological factors that affect fish processing workers, there exists the potential for a variety of work-related health concerns among fish processing workers in BC.

In a report detailing a review of the fish processing industry in Canada published by the National Seafood Sector Council (NSSC) (2005) it stated that one of the largest areas of safety that was lacking in BC fish plants was training. According to their statistics, at that time, 97 percent of new workers in BC were in need of orientation training, 90.5 percent were in need of "Introduction to Workplace Health and Safety" training, which includes first aid, forklift training, and environment education, 90.5 percent were in need of general sanitation and hygiene and 66.5 percent were in need of literacy and math training (34).

According to the NSSC, literacy and math skills are crucial to OHS training as

well as to accessing most of the information provided on health and safety in the plants, as the majority of it comes in pamphlets, posters, and brochures that are available in the union office and fish plant offices (34). The other barriers to training they identified include the short processing seasons in BC which not only limit the time available to train employees, but also limit the financial resources allocated towards training, and a lack of interest in training among workers who are not planning to stay long, or are not receiving high pay or hours on the job (35). The report states:

By and large, a training culture does not exist in the BC seafood industry. Most training, where it occurs, is on the job, rather than institutional. The institutional training that does exist focuses on production techniques, rather than marketing and business skills (34).

This quote is detailing the priorities of the industry to restructure towards a more corporate model, where formal training, versus on the job training, is prioritized. And skills for these workers move beyond production towards marketing and business skills as well. The desire to cultivate a more “highly skilled” and educated work force in fish processing in BC is stated in the Industry report for 2007 (Gislason 2007).

WorkSafeBC

WorkSafeBC, formally called Workman’s Compensation Board (WCB), handles all occupational injury and illness claims submitted by workers that are covered in BC. The total number of injury claims submitted to WorkSafe BC by fish processing workers between 1997 and 2006 was 1,968 (see table 8). The number of injury claims steadily decreased during this time period. The average number of claims between 1997 and 1999 was 332, versus the average number of claims between 2004 and 2006, which were

129. This decrease could be attributed to a range of factors including: a decrease in the number of fish processing workers over this time period, reduced hours of exposure linked to increased seasonality and employment volatility, changes in reporting rates by injured workers, changes in the nature and type of compensable injuries and illnesses within the compensation system and an increase in OHS awareness and reduced risk in the workplace, or a combination of some or all of these factors.

While information on occupational injuries for fish processing workers in BC was available detailing the number of claims between 1997-2006, as well as number of claims by gender, and types of injury, in comparison, the information on occupational disease for fish processing workers only provided the number of claims for the years 2003-2007. WorkSafeBC did not provide specific diseases, or the breakdown by gender, However, it did provide the number of days of leave and the total cost of the claims.

Table 8: Claim Counts by Injury Year and the 1991 Standard Occupational Classification (SOC), Injury Years 1997-2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Fish Plant Workers 1,968	397	317	284	164	152	126	142	140	136	111

The most commonly accepted injury claim for fish processing workers between 1997 and 2006 was for injuries related to exertion and bodily reaction, next was contact with an object, followed by falls, exposure, and transportation accidents (See Table 9).

Table 9: Claim Counts by the 1991 Standard Occupational Classification (SOC) and by Broad Groups of Accident Type, Injury Years 1997-2006

Type of Accident	Contact with Object	Falls	Exertion, Bodily Reaction	Exposure	Transportation Accident	Acts of Violence	Other	Total
Fish Plant Worker 1997-2006	781	270	816	54	38	1	8	1,968

A majority of the injury claims were made by men: men submitted 1,165 of the claims accepted by WorkSafeBC, versus 803 claims submitted by women (See Table 10).

Table 10: Average Age, Claim Counts by Gender, and Complete Duration by the 1991 Standard Occupational Classification (SOC), Injury Years 1997-2006¹⁹

	Total	Males	Females	Total Age
Fish Plant Workers	1,968	1,165	803	37

This uneven divide in fish processing labour claims is striking considering that the majority of fish processing workers are women (see page 94). While one could argue that women may be working “safer” jobs with less exposure to risk, or are just inherently more risk averse than men, there are also other potential explanations for the gender discrepancy in claims. These include less awareness and thus less funding and knowledge or understanding of the unique OHS issues faced by women who work and are assessed for injury under a model that uses male injuries and bodies as the standard

¹⁹ The claim counts are by year of injury, and include all claims for injury years 1997 through 2006 that were accepted for std, ltd, or survivor benefits either in the year of injury or in the following year (until October 31, 2007 for 2006 injuries). Health-care-only claims are not included. The complete duration statistic is the total days lost per claim, including days lost in years beyond the year of injury. Duration results are not shown where there are 25 or fewer claims. Uncoded claims have been proportionately allocated the allocated counts have been rounded to whole numbers. Column and row totals have been rounded independently, so the columns and rows may not add up exactly to the totals shown.

for normal. This can lead to separate or unique OHS issues that are not recognized by worker compensation bodies, or medical professionals (Messing 1998). A second potential explanation is gender bias in willingness to file claims related to the type of injury they are experiencing or greater vulnerability to employment and income loss due to lost time. Finally, the larger number of accepted claims filed by men versus women could be partially explained by the number of men versus women that sit on and make decisions regarding whose claim will be accepted and whose will not, as well as a gender bias by health professionals, who are the first to diagnose, or not, an illness or injury (Chung et al. 2000, Messing 1998).

The number of injury claims was 1,829 between 1997 and 2006 (Table 10). The number of total claims by fish processing workers for occupational diseases, such as allergic reactions, cancer, chemical burns, conjunctivitis, dermatitis, hearing loss, infections, hepatitis, bursitis, tendinitis, carpal tunnel syndrome, silicosis, Raynaud's phenomenon, and asthma, between 2003 and 2007 was only 199, and the latter declined steadily during this period as well (see Table 11).

Table 11: Occupational Disease by Detailed Occupation and Year 2003-2007

	2003	2004	2005	2006	2007	2003-2007	Days Lost	Claims Cost in thousands of dollars
Labourers in Fish Processing	54	49	44	33	19	199	11,129	1,295

To more accurately compare the two types of occupational injuries, taking into account the same years, the number of injury claims accepted between 2003 and 2006

was 655, versus the number of occupational disease claims accepted in the same years was 180. The significantly lower number of occupational disease claims compared to injury claims is consistent with recent studies within OHS that show more injuries as compared to diseases occurring in the workplace, and the difficulty of recognizing diseases, usually because of the complicated nature of proving cause of disease within the workplace (Sullivan and Frank 2000).

4.2 Prince Rupert Fish Processing Workers

In the interviews I conducted participants filled in a gender specific body map (See p. 120 and 121). Four women fish processing workers, and seven male fish processing workers filled out the maps. Participating workers identified where they had experienced an injury, illness, or pain and discomfort on the corresponding part of the body map. This helped to encourage discussion of injuries, helped to visualize the scope and quantity of injuries/illness/pain workers experienced, and at times helped to jog memories of injuries/illness that had occurred in the not so recent past. The most commonly reported injuries were musculoskeletal disorders (such as pain in the shoulders, forearms, lower back, elbows and wrists) as well as injuries from slips, falls, fish and cuts. There was also significant concern regarding the risk of a collision with a forklift. Combined the main areas identified on the body maps, were the wrists, forearms, elbows, ears, shoulders and lower back. The workers I interviewed discussed both injuries occurring on the job, which continued to bother them at work and at home, as well as aches and pains that had

accumulated over a long period of time, for which they did not have a direct work related cause.

FW: yeah, yeah I got hit by a frozen fish

I: Did it break it, or...?

FW: No, uh I got a cut on it, and my back, that was from carrying a halibut I think, I couldn't stand up, there's a lot more but they're kind of minor stuff.

FW: Back in 1988, I blew my knee apart so bad that now it's toast. I was stripping freezers, and, there are big racks, pipes, ammonia pipes running through, so you're pulling the halibut off, and what you do is slap them, slide them and put them into a truck, but you're standing on a two by ten board because it's about five feet across, and it slipped, my foot got caught in-between the pipes and then I went crack, could take the leg and hold it up here, now it's just nothing but movement.

I: Do you have any regular aches and pains?

FW: I, just yesterday, but I don't know what from, I know it was from work, but my back. I don't know what I did, because I didn't lift anything heavy or anything like that, but just yesterday I was in pretty bad shape.

Also identified as common illnesses in the plants were asthma and other infections, some were aggravated by both the cold conditions as well as the work environment.

KI: That's about it for illnesses - uh you get pneumonia, well your basic cold but in some instances it's magnified because of the environment that they're working in, it's cold, it's wet. Or you're working - that's on that floor or you're up in the freezers, like I was up there today doing inventory with uh, a charge hand and we were there for an hour and a half and it's 15 below zero. So you enjoy coffee breaks big time. Yeah infections. The first aid room has to be spotless just like hospital room because you can get staph infection in there. When I first started there they had high incidents of infections. But I am a clean freak, you have to be able to eat off of that floor and when I was first working there that wasn't how it was, and it took me two years and I got the infection rate right down. And it's education. Wash your hands. If you've got a cut let me know, we'll get it attended to. And it's an ongoing education because there are new people coming in all

the time. And some people as they get older, “oh, it can't happen to me I've been here forever”, you have to keep reminding them.

Depression was also identified as another OHS concern in the plants. Its cause was linked to the restructuring of the fishing industry and was seen as a factor in the occurrence of substance abuse in the plants.

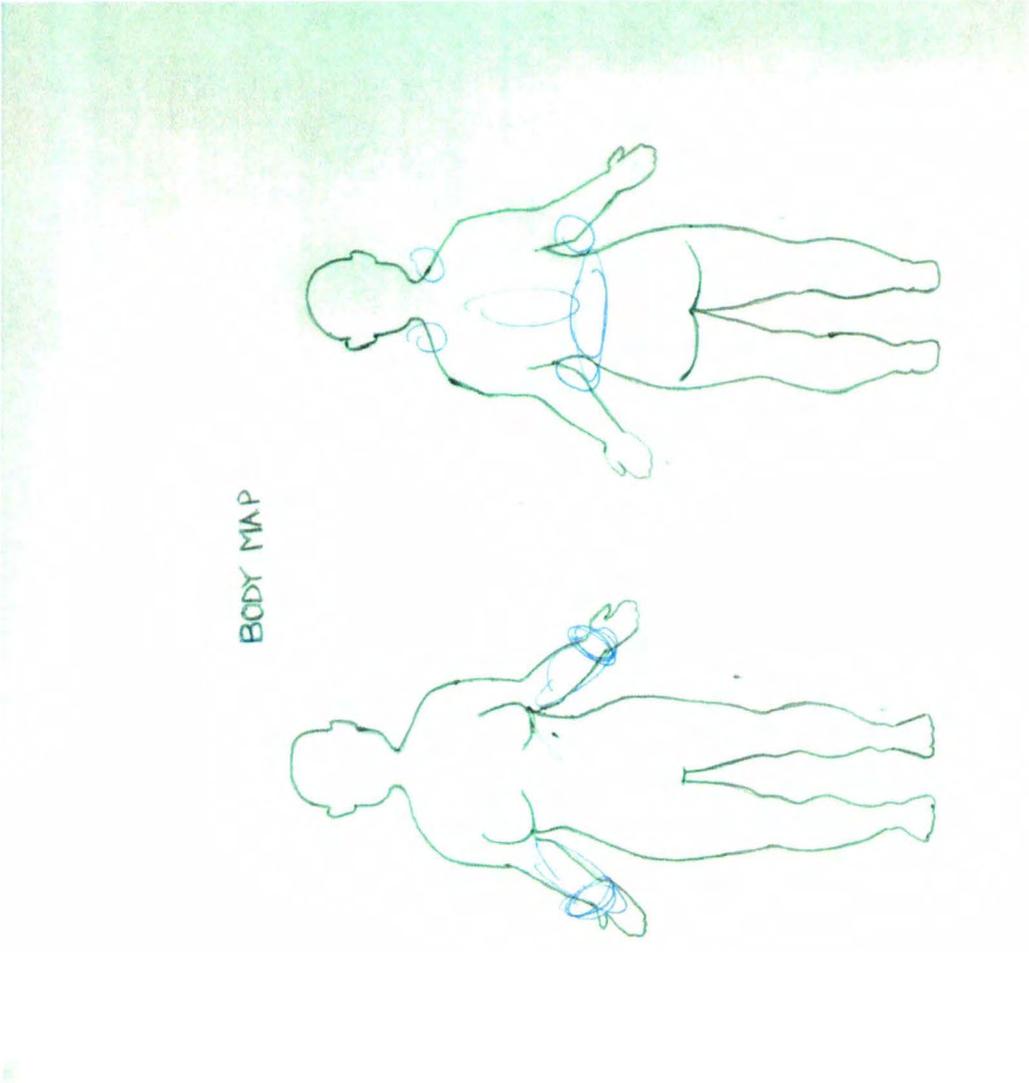
KI: um another one thing that's big in there is depression because of the way the industry is going and it's drawing people down. Um, at one time it was frowned on, but they allowed it to happen and it was drinking on the job. At one time it was pretty bad. When I first started out I think I was 19, 20 and it wasn't uncommon to go into the managers office to talk to him about something and he was having a glass of whiskey. It was not uncommon. Not uncommon at all. That they're cutting down on, but alcoholism, I think that's one of the worst, it's an illness you know and uh, there's a lot of it in the industry.

KI: There's one thing. Substance abuse, it's very big. Very big, alcoholism, drug use, uh, coke a lot of heroin use, at one time I've had three heroin addicts working in the plant. People are kind of aware of it, but they don't know for sure. They've asked me about it, I've said hey, there is certain rules I have to abide by, just like a doctor, I can't discuss names, because they have a right to their privacy. I know for a fact there were two people who were HIV positive and there were also people with Hep B, Hep C.

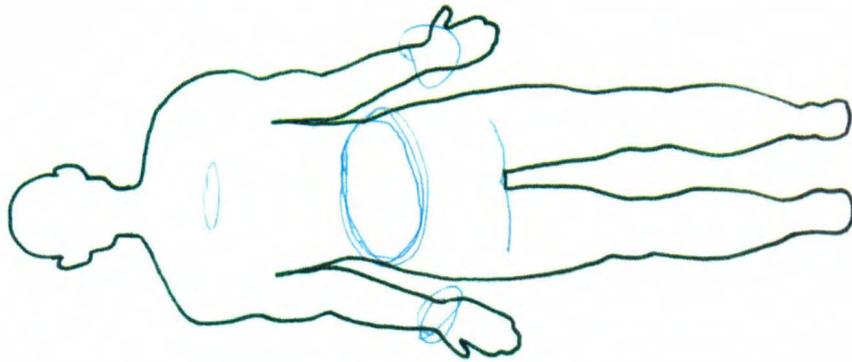
Substance abuse in the plants is an OHS risk in that not only is it a health concern for the individual (it is a disease as pointed out by the interviewee), but its occurrence in the plants brings risk of injury to the worker and others, and risk of losing a job.

It was also pointed out that there was an increase in injuries during the peak seasons, when the pace is fast and there are a lot of new employees hired to work the busy season.

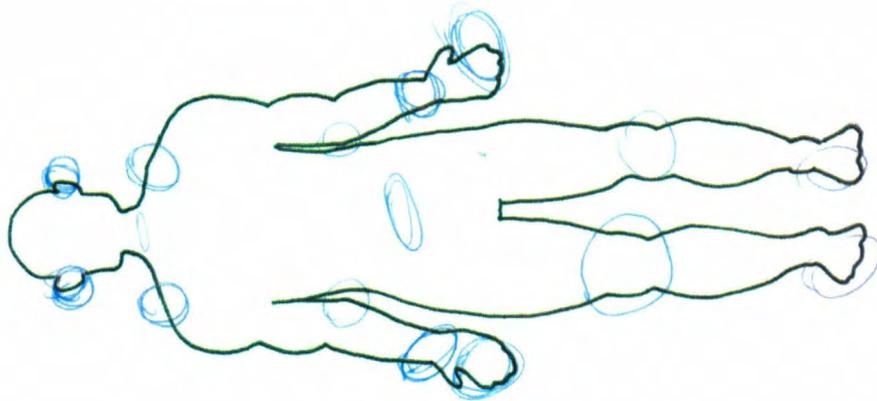
Map 4: Body Map Female Fish Processing Workers



Map 5: Body Map Male Fish Processing Workers



BODY MAP



KI: Yeah, it happens on a daily basis, but it varies, like this time of year it's slow and when I was first aiding I wouldn't see anybody for a month, but in the summer time when it's busy and we have a full crew I might see ten twelve, thirteen, a day. You know, it ranges everything from slime in the eyes, to knife wounds to soft tissue injury.

Age was also identified as a factor for increased risk and injury for both male and female workers. This fish processing worker explains:

FW: And last year was unprecedented for the amount of people getting pinched, just the fear right. And a lot of it too is young kids, because they are afraid to make a mistake, and they're not sure if they can shut machines down. Or, and they don't want to get into trouble so they do things that they shouldn't.

Identified here is the increase risk faced by young/inexperienced workers because they are new to the work environment, and are usually not as confident or sure of rules and procedures due to lack of experience, as well as low seniority, which positions them in the most flexible and usually least desirable job positions. As the quote above states, young kids are getting "pinched" or caught in the machines because they are inexperienced and both unsure and intimidated in their workplace. This age demographic is also thought to take more risks. Since youth are seen as higher risk to receive an injury on the job, WorkSafeBC has invested in a number of educational commercials, as well as youtube videos directed specifically at those under 25 (WorkSafeBC). This high risk positioning puts youth at greater risk for losing their job, and therefore these workers, as noted above, may be more worried about losing their job and may endanger themselves trying not to "get into trouble".

Aside from experience, gender also played a role in the types of injuries that occurred and how. For males, the most common areas noted on the maps were lower back, shoulders, wrists, and ears (hearing loss), and for females it was wrists, forearms, shoulders and lower back (See Maps 4 and 5). In this next quote the interviewee identifies the ways the injuries were gendered, with the majority of women suffering from carpal tunnel (although many of the men I spoke to suffered from this as well), but also back pain due to the long hours standing on the cement floors. The worker then goes on to describe the ways that women tried to deal with the pain at work, from using bowls of warm water, as well as cardboard to stand on instead of the cement.

FW: you have fish slime, you have water, the floors are slippery, one of the biggest things is falls. Slips and falls. Umm, cuts, strains, carpal tunnel is one thing for a lot of the women, and it's hard to do, backs, especially standing on cement floor, you know your backs, your joints, just standing on cardboard, or piece of wood. Because the cardboard will produce heat, where as the cement will not, it will ease your pain. That's one of the big things, when they started talking about people getting hurt in the industry, and then carpal tunnel that was bad, but a lot of women will have a bucket of hot water and they will put their hands in that, and that seems to help.

Similar to larger trends found in other fish processing plants, women suffered different injuries than men that were related to a more repetitive work environment than men, although both male and female workers experienced repetition on the job. The fish processing workers as well as the plant managers attributed the accidents and musculoskeletal disorders to the repetitive nature of the work as well as the long hours:

FW: I mean it is, you know having done it as long as I have. It is repetitive. It can get boring. I mean it's long days of essentially doing the same thing over and over.

FW: Because it's repetitive work, so it gets your wrist after, your elbows after, your arms after, it's very repetitive, how many friends have ended up with arthritis and everything.

FW: But there's slipping, cut fingers, unloading machinery, you know length of time, long hours, that takes it's toll.

Fish processing plants in Prince Rupert were for the most part actively addressing the OHS risks and injuries in the plants. The plant managers, as well as the fish processing workers I spoke to, also discussed specific ways that the plants were improving their OHS standards. The changes they described included dealing with areas of risk and changing them as soon as possible, as well as introducing ergonomically designed workstations and changing the tools and methods used to sort the fish.

PM: there is always little nicks and cuts, and bruises, and slips, that's normal. So it's fairly common. Our incident of time loss injuries though has been declining. We haven't had as many repetitive strain injuries, and we haven't had as many, knock on wood, serious injuries as we have had in the past... We have been trying to deal with things as they come up. And if it's possible to make modifications then we try to make them immediately. For example, in the skinless, boneless area we had made some changes this year, and it created a hazard which, we didn't realize this was going to create a hazard and that, as soon as there was an incident there, the structural modifications were made immediately.

FW: It's an inflamed tendon type thing, in the shoulder as well. I have had a lot of problems with the shoulders over the years. That is a lot of my work. What I do is I grade fish, which is essentially throwing fish around. I think a lot of that comes from, when we were like stationary grading, off of a table, because I have also had carpal tunnel. I had that in both, I had one operated on. At that same time, the focus went from stationary grading, a lot of it, like a hundred percent of it was off a table, to where we are grading off a pump on a belt. When we moved over, and you know, a lot of it was done off this moving belt, and just flipping them, instead of grabbing them, the carpal went away. And I've never had to have the other one done, so you know just that change there, I guess it must be that way, I mean when you think about it, it makes sense, because when it's on a table you really have to grab onto the fish quite hard and

throw it, whereas off a moving belt you just kind of grasp it lightly and you know, more flip them.

FW: Or if you can, put one foot up on a board, you know six inches up in the air or something, and then switch around and put your other foot up. But a lot of the women didn't like that, they preferred to stand, and then putting the table to the height of the women, because the more she has to bend over the tougher it is on her joints. But they've been trying you know different things to ease up on people.

FW: Yah, after they made everyone wear uh hearing, earplugs, ear protection I mean.

FW: Oh, they did that huh?

FW: Yeah, it was a few years before I retired, after your time.

FW: So everybody was wearing those things?

FW: Yup. some of them had big ones, but some of them had, they had to wear those, yup.

FW: They probably didn't want you guys to talk (laughs).

FW: But actually the company has really toned themselves up, everything is investigated, it's done right now, it's not waited on and stuff. And there is enough of us keeping an eye out if there's something we don't like.

Improvements to the working conditions in the fish processing plants were also discussed with interviewees. WorkSafeBC employees personally visit the plants for more information, such as needing to better understand a machine or job function. In one of my interviews this person felt some plants were safer than others:

I: Do you consider the fish plant workplace to be safe?

KI: More so now. Employers are modernizing the plants and increasing the mechanization. For example, CanfishCo, every time they have a claim, they will look into the problem, and if they can, try to fix it to make it more safe right away. Oceans is improving the plants, and getting better, McMillan is considered outdated and needs more updates.

While plants have been making efforts to improve safety, within WorkSafe BC education there has been a lot of emphasis on the responsibility of the individual worker for their

own safety. On OHS posters and pamphlets – such as the one labeled “Safety on the Job is Everyone’s Business” indicate the role and responsibilities for workers (WorkSafeBC Poster) This sense of individual responsibility came up a few times in the interviews and, in this next quote, the worker felt not only unsafe in his working environment, but also responsible for ensuring his and other workers’ safety because he felt that safety issues were only dealt with in extreme situations.

FW: No, no. I am always keeping an eye out for a lot of people. I mean I try to keep an eye out on stuff right. I tried out for my first aid - I didn't pass on that, it was a pretty hard course, but some of the people are pretty scary driving. I keep my eyes out and my ears open all the time. One guy was driving, and his forklift with three totes high, and buddy I was talking to was beside me, and I grabbed him and pulled him away, and the guy who was driving just kept on driving, and uh we made a report on that, but he's still driving though. It's almost like, it's, they don't care unless somebody gets extremely hurt or dies or something. It hasn't happened yet, but that guy's a dangerous driver.

Training for both job responsibilities as well as OHS was discussed in the interview process. OHS training was provided in the form of an overview of proper procedures when the worker was hired (personal communication with plant managers) and this was provided to all new workers. Training for specific job functions was not always provided, as pointed out in the NSSC report discussed earlier, and a majority of the interviewees either mentioned no training, or limited training by a fellow worker, but in some cases, such as for grading the fish, inspecting the roe, as well as filleting, some training was provided, and it did not seem to vary by gender.

I: What was the training process like?

FW: Actually I did have someone train me, umm...it was such a long time ago, I can't really remember. I find that Canadian people that come into

the plant, and they put you in a position where you are taught to grade, but it takes a long time. It is not something that is just learned overnight. It takes actually years to learn so, that's what I found. You can't just put somebody there and say well you graded for a day, you're a grader now, it doesn't work that way. Yeah, I would say technicians probably taught me how to grade.

FW: I think I learned as I went on.

FW: I had somebody go through and show me each job, yeah.

I: Ok. And what about with the grading?

FW: The grading, yeah I like you, one day they put me on there. They asked me if I wanted to grade, and I said yeah, sure. And I already knew my salmon species and that helped, but then I had to be trained on a...when they do draggers, there are so many different species.

FW: Uhh, they mostly trained uh the people that I worked with mostly trained me, it was a 'on the job' type of thing. They taught me a bit of stuff, but back then I stayed behind and kept on doing it through my breaks. Well, I wasn't supposed to, but I did it anyways.

FW: He started me out, you know pointed out kind of what I, and if I had a problem, like had some difficulty with something, like identifying a certain species, that's the first one that you got to get. And I was somewhat familiar with them because I had already worked for, I was into my third year there when I started grading. If I was ever unsure just ask, ask. Not sure of the quality, ask. I worked with a couple of experienced graders, but if anything came up, I'd just ask him. He was always on the floor (referring to manager).

FW: No, we were trained. And then you learnt more from, as you went along from coworkers.

PM: What's it like? If they've got any knife skills at all we'll probably give them 80 hours of training, if you can't tell then if they are going to be a filleter, then I mean, usually you know, so. Like we got a couple of people who worked in the meat department, so they have used a knife so they worked out and now they're filleting here.

This lack of training for job tasks poses OHS risks for workers because they may perform improper job techniques. As well there could be an increased risk for injury

from lack of knowledge or skill level. Stress from trying to learn a highly skilled job in a fast paced environment such as a fish plant, without proper training, could also pose OHS risks.

Another important tool for increasing the health and safety of workplaces is functioning health and safety committees. I asked the interviewees whether there was a health and safety committee at their workplace and if they had ever served on it. Here are some of their responses:

FW: I haven't been involved in any, but I probably should be, but, no, not here. We do at the main plant.

FW: Uh, there was, but, they haven't done it for, I would say, three years, or two years. I used to be...on the safety committee and, that was quite a few years ago.

FW: Actually I did once, but I usually dealt with a lot of politics, you the know the grievance procedures and all of that, and then there's other people who take more of a shine to the health and safety, so I let them do it...Can't carry it all on one plate.

FW: There is, there is too.

FW: No and no.

These interviews suggest that health and safety committees were no longer present in all of the fish plants in Prince Rupert, or the workers at least were not aware of them, and appear to link this decline to recent changes in the industry. While some had them in the past, only one plant currently appeared to have one. This is in direct contradiction with the WorkSafeBC act²⁰ that states:

²⁰ Found in Part 3 Division 4, sections 125-140– Joint Committees and Worker Representatives of the Workers Compensation Act (<http://www2.worksafebc.com/publications/OHSRegulation/Part3.asp#SectionNumber:3.5>)

An employer must establish and maintain a joint health and safety committee

(a) in each workplace where 20 or more workers of the employer are regularly employed, and

(b) in any other workplace for which a joint committee is required by order. program may be required in any workplace when, in the opinion of an officer, such a program is necessary.

In some cases, workers were unsure as to whether or not their plants had a committee suggesting the committee did not play a very active role in OHS for employees.

Alongside the health and safety committees, I also received ambiguous responses to my question about whether or not there were inspections²¹ done at the plants. All of the workers identified that there were regular inspections occurring, but the frequency of the inspections they described varied from once a year to once a month. One plant worker I spoke with stated that while inspections occurred on a regular basis, they were notified in advance when the inspections were going to occur and then would prepare the plants accordingly, thus indicating that the level of health and safety in the plants may not always be maintained according to standard or up to the standard perceived by government. The worker explained:

I: Do you know if there is an inspector that comes through?

FW: Uh, if they do, they announce that they're coming, so the person there tells everybody and they get everything clean and organized and get everything in place.

I: So it's not run like that on a daily basis?

²¹ While asked during the discussion on OHS, I did not clarify as to whether or not they knew if inspectors were for OHS or Food.

FW: No.

Another aspect of health and safety that I asked the interviewees about was procedures at work when they experienced an injury. While the most common response was that they would go to the first aid attendant, one interviewee pointed out that the first aid attendant did not have the proper accreditation, which he found worrisome.

FW: Uhh, well their first aid is not really good, is not really good. Kind of concerned about that, because the first aid attendant that was there since I was there no longer does it, but he's still working there. But the first aid attendants that they have working there are not very good at all. Kind of um, I don't what happened with the first guy but, the other guys only have class one, and that's not, that's not a proper one to have for an industry.

I: Is it supposed to be a class three?

FW: Class three yeah, cause they work with uh, ammonia and stuff like that, and if ammonia leaks then first aid attendants supposed to look after everybody and all that...

This was only the case at one plant, but nevertheless it is worrisome to have a first aid attendant working with improper accreditation in even one plant, as the first aid worker is the first person workers go to when they are injured or become sick. Thus incorrect assessments at the first level could have serious health consequences later on for these workers. An example of such misdiagnosis is given in the following quote below.

FW: You always wanted protection, because if you didn't report an injury, or slip or whatever to the first aid, if it's reported than you could always go back to it. But if you don't report it, then you're gonna have a tough time. I had that happen to me. I got a haywire back and a, like the first aid man that I first reported it to said "there is nothing wrong with you" and I ended up having a back operation and they shaved a disc.

The paper trail these workers are describing includes the 7a forms, which are used by the

doctors to inform WorkSafeBC about a reported injury or illness. These forms are then sent back to the company. While in the first quote below the plant manager states that “everything” is covered by WorkSafeBC, the second quote by another plant manager illustrates that the process is not simple. Once the forms are sent to WorkSafeBC, they are returned to the company and the company either accepts or fights the claim on their end.

PM: Yes. Everything is covered by WCB. If there is an injury the employee would report to first aid, have that injury recorded, and the first aid attendant would make an assessment on whether additional medical aid would be required. And refer them on if it was necessary. And if not, then just bandage them up, or whatever, or send them back to work.

PM: They go to our first aid guy, we've got a level 3 first aid guy here. They, if they go to the hospital, a 7a form gets written up, they go the doctor with their 7a form and then that goes through WorkSafe, WorkSafe will send us back a letter saying, or a doctor will send us a letter saying this person is off work for 2-3 weeks. We go through it, we do an accident investigation, if we don't think it's legit, or someone faked an accident or we knew that they got hurt playing hockey somewhere, something like that, then we would deny the claim and go through it that way. If it's something that we saw, something that is reasonable, then we will accept the claim and then bring the person back for light duty.

Once WorkSafe receives a claim, they will send out an automated letter to the injured worker and employer. The employer has three days to submit a report with their details of the event, and any challenges to it. The worker will then get another letter, or call to give their statement. There is a new system, called Teleclaim which is automated, allowing workers to call in at anytime and leave a statement. This was considered easier for injured workers who were still working, either regular or light duties, as they could call in after work or on weekends if they were too busy working during regular hours (personal communication, Work Safe BC Employee).

Other workers I spoke with also discussed the importance of reporting an injury to WorkSafeBC to start a “paper trail” so that, if something becomes problematic later on, there will be evidence of the accident occurring, as in the workers’ experience above.

FW: Go to first aid and then the first aid attendant begins the paper trail. That’s the one thing that’s hard to get into people’s head. I don’t care if it’s a scratch, you go to first aid. You are dealing with a biological product and if it gets in there, and fish is the worst for infections, you know that stuff shoots through your system, you’re screwed cause you haven’t reported it.

The ramification for not starting a paper trail is loss of compensation for an injury. This can be significant if a worker experiences high levels of pain, discomfort, or inability to work.

In some cases workers trivialized, or normalized their injuries. Stating that they had done work that they should not have done, that the injury really was not that bad, or that the injury became apparent once the worker was at home, and therefore they did not think it would be compensated.

FW: No, because it happened that I got to feel it and I couldn’t move anymore, and I was at home. And I know I was a little bit crazy sometime, I didn’t have to lift some of the stuff that I was helping with.

I: So when you hurt your back, did you seek treatment, like through WorkSafe?

FW: No, I didn’t. I just worked. I’m just silly. And I just work hard, and I am always used to working so hard that I just got up and went and you know, my back’s sore, but it wasn’t major. I guess it wasn’t bad enough to hold me back from working, it was just, it was quite sore.

Many of the workers I spoke with discussed how claims were not worth reporting, either because they felt that the claim would not be recognized, or that that it wouldn’t be worth the time off work.

FW: Most of it isn't enough to be off work for any length of time. I mean, pff, um, I show up for work, I mean, you wouldn't get it for it anyway, basically I mean, I have aches and pains, and stuff like that, and I just go.

FW: Because I am working. If you're thinking long term or whatever, well I'll work until I am ready not to work. And I can do pretty much anything I want to do. I couldn't, well I wouldn't want to anyway, be a baseball pitcher, at this point in my life, or you know, I am not going to be going on to do anything else, so what could I get from them?

FW: The biggest thing that is really annoying on the whole health and safety thing is WorkSafeBC, because of the way they pay the workers now. It's based on their yearly income. The one fella, a young kid, lost the tip of his finger, it got caught in the gear in the butcher, just the one in a million chance of it happening, and he got thirteen dollars a day for every day that he missed work, because they took his income, he only worked three, maybe four weeks of the entire year in the plant, they took all that money, based it over the entire year, and that's how they decided how they were going to pay him for every day that he missed. So he's losing \$250 for a shift and he's getting \$13 benefit. That's criminal.

Race, as well as gender, also seemed to be a barrier to filing OHS claims, and having them accepted. OHS among ethnic minorities and First Nations workers is understudied. As with women workers in general, their health is measured against a European standard or norm, and is not equally represented among those who are in decision-making positions regarding their claims. These workers, as discussed in the previous chapter, experience a multitude of barriers when they are both racialized and gendered in the health, or OHS environment. In my discussion with a key informant, concern regarding First Nations claims was stated:

KI: I hate to say this, you should factor in types of people who work in fish plants; the types of people who work in fish plants are not intelligent, the intelligent ones never have claims. In Prince Rupert especially, most of them are Native, and have lifestyle...genetically, some of them are and culturally, but not all of them – When you ask why did you lift the tote like that? They say I don't know. Acts of stupidity aren't covered. You can't discriminate, it's not an educational level, intellectual level, not that

they are stupid, or not intelligent, but that there is a lot of fetal alcohol syndrome, that workers are not capable, that their brains can't get it.

This quote is telling in two ways. First, what is being identified here is not only a set of assumptions about fish processing workers in Prince Rupert in general, but specifically about First Nations fish processing workers. This statement is implying, but also trying to not imply, that these workers are more likely to engage in 'acts of stupidity', and implying that this proclivity is related to being brain damaged due to fetal alcohol syndrome. Second, there are in fact specific disabilities that certain workers in the fish plants might be dealing with, such as fetal alcohol syndrome, and as a result their specific OHS concerns may be that much more invisible, and therefore not adequately dealt with, which could result in these workers experiencing a higher risk for OHS injuries or illnesses. The limited employment options for First Nations in the Prince Rupert area could also be playing a role in how willing these workers are to make OHS claims, or make statements that they may feel would jeopardize their employment.

Another significant barrier for Prince Rupert fish processing workers is the drive to get their hours for EI eligibility. Getting ones 'hours' has become such a priority that workers are willing to work through pain and injury just to remain eligible, because the inability to get their hours usually results in the worker receiving income assistance versus EI. In the quote below, the first aid attendant in the plant discusses how workers are working through pain to get their EI hours. In the following quote it is stated that the woman "does her hands". The interviewee is referring to the fact that her hands are crippled from arthritis and yet she continues to work with them.

KI: Cause there is a lot of work going out and people are hurting. More so than years ago, because of the EI system, they have to get so many hours, and because they are hurting, because they can't get enough EI, they will

put up with a lot of physical pain to get enough, ok? And, if they don't have enough hours they will work through injuries and by the time it came to the first aid room, they are in bad shape. Were talking people that are crippled up, and they have to go for operations and I am one of those. Like I have this one lady, she came up to me and says XXX I got it. I says you got what? She says I got an hour and a half over what I need for EI. And she was ecstatic, and I know this person, and she does her hands, and personally I think it's really wrong for people to have to do that.

This same worker identified the significant level of deterrence to filing claims that exists in the industry. This stems from workers experiencing a significant amount of difficulty in getting their claims accepted by WorkSafeBC. Here are a few examples from workers:

FW: Well there was one girl who had tendonitis in her wrist in her hand, in her arm and she was trying to go on WCB and they fought her for two years and she didn't get it; she had to go on welfare. She moved out of town, she quit the cannery. I don't know where she is now.

FW: WCB for the bursitis in the shoulder, you know I've never had very much through WCB. The bursitis thing, and the shoulder thing, that was a long fight with them. Because that's the type of thing they, you know, keep jerking you around, "No it's not job related," and all this kind of stuff; it drags on forever but, they did finally accept that. I was off work for about two months on that one.

KI: Arthritis. WCB won't recognize it. But it's there, I've seen it. In some people I've seen I've worked with for 10-15 years you can see it in their hands.

FW: Yeah, they seize up, (his hands) although, you know, I've had it, I've mentioned it to the doctor and we've done some tests or whatever, and it's not serious. But I am finding, as I get older, I mean, you know, they really don't work; they're stiff, they're sore, and he's says it's not really arthritis, well what is it? They're worn out I guess, just worn out from years of doing that job.

FW: I am trying to go through one right now. This one just started to act up (his ear), it used to be good, but it started acting up about three or four years ago, I put in a claim to WorkSafe and I got a note today and they denied it. They say it couldn't have happened from work environment, and, uh, I dropped off the forms when you saw me there (at the union). What I was hoping for at least was help at least to get hearing aids. I could use some. This isn't mine, my mom passed away years ago, but it's strong. He (the audiologist) told me to apply at WorkSafe, I did. They

denied me.

KI: When I did my hand, he [company representative] went through all seven of them. The lady that does them for us, she beat him every time, but he fought it all the way. Each time that we went, she fought it.

Aside from the deterrence created from watching other workers experience difficulties in getting their claims accepted, resistance from the company also created barriers for these workers to file and get claims accepted. In the last quote the key informant refers to resistance from the company management to compensate claims. In the interview the worker explained how the company hired a previous WCB employer whose sole responsibility is fighting the employees' WorkSafeBC claims.

KI: The companies have, I call them head hunters, and his job is to fight every claim. He did not, when I first met him, he did not realize I also worked the floor. He knew I was on staff and he told me right to my face, he says, my job is to fight every claim and I will do anything to stop it, and it dawned on him that I was also a union member, and he says oh, by the way, if they are right, I will also fight for them, and he has not done that once. Not once. It's his own company that he works for who subcontracts his services to the companies, and uh, it's all he does, is safety and fighting claims for the company and that.

I: So is he a lawyer?

KI: No, he used to work for WCB at one time, and he just fights claims, that's all he does. This is what somebody has to go through just to, like they'll get the compensation but his thing is to fight it so that no, they don't. A lot of time there is steps that you go through to dispute a claim and there is seven of them. Each time that he puts a dispute on a claim it has to go through a litigation type thing between our union rep, WCB and him.

The interviewee recognizes that this process deters workers from filing claims which can have negative consequences for the workers later on.

KI: One claim he did it. If he can he will try everything and anything, even to the point, I am not saying he is a liar, but uh, the information is uh fudged. That's what someone has to do at our plant anyway, I'm not sure what it's like at other plants. And it's causing people to say I can't do this, I just not going to do it and they just won't apply.

This worker also recognizes the precarious position that a first aid attendant holds as mediator between the hurt employee and their mutual employer.

FW: And it's a game of frustration for the patient, cause they're basically getting bounced all over the place, and the company... basically they would rather have it that there is no first aid on site if they could get away with it they would because [the first aid attendant] is the intermediary between the company and the people that work on the floor. They are in that grey area there. They are suppose to treat people so that they can get back to work so the cost to the company is down. But they also have to look out for the patient. They shouldn't but they do lean toward the patient more than anything else and get them up to the hospital. I have this thing I always say, document, document, when in doubt, document again. Get it on paper cause if it's not on paper you've got to fight. Big time fight, and there's been a few of them that just never papered it, and uh they're paying for it, they're paying for it big time.

Not only are employees unwilling to report injuries to WorkSafeBC, some are also unwilling to go to their doctors when they receive an injury or recognize an illness.

Doctors and OHS

One worker stated her reason for not going to the doctor was because she thought the doctor couldn't help her anyway.

I: Ok, did you go to a doctor or anything?

FW: No because it wasn't, I didn't think there was anything he could do, because I strained my muscle in my back so I knew it was just going to take time. If I was hurt and needed to go, I would have gone, but there's certain things, they can't really do anything for you so, I don't go unless I have to.

Another reason why workers do not go to the doctor is because they don't have one.

With the population decline in Prince Rupert, three family doctors have left, and have yet to be replaced, which leaves many without a regular and consistent medical professional following them.

FW: Well I have no problem but the...actually there are people having problem in having doctors here. Since those three doctors left last year and...

FW: And I have had the same doctor for quite a long time, so it's not affecting me yet; I am sure for new ones coming in it's a struggle to find a doctor.

FW: Yep, in a small town, when three doctors leave it makes a big hole.

PM: There's concerns about our health care system of course, and if there's any problems here, it's a long medivac to Vancouver or elsewhere and we've had, like other rural communities, a doctor shortage. Like right now I don't have a family doctor, because mine passed away and I haven't been able to find another one.

Instead of seeing a doctor, many of the workers self-medicated, using either over-the-counter pain medications such as Tylenol, or herbal remedies to help them function on the job.

I: Do you take any medication or self medicate?

FW: Ibuprofen or Tylenol When it happens at work I've got everything in my lunch bag, right, from Pepto to Tylenol to Buckley's.

FW: These are the big two right here. Both shoulders. They're worn out. I've seen the orthopedic surgeon in town, he recommended that I have shoulder replacement on both, which would pretty much finish working here. One of my co-workers suggested this, it was getting to be, or I was in extreme pain pretty much all the time, suggested I use glucosamine. Are you familiar with that? They're kind of like an herbal supplement type of thing. I went on it - it worked. I am still in some pain, but it's

manageable. Without that, I probably wouldn't be working, because it was to the point where I was in a lot of pain. I take it, it works, I have experimented with it a couple of times, as in not taking it, I end up in a lot of pain. Is it a placebo? You know what, I don't care. It works, it works for me, and I know quite a few other people who take it and it seems to work, I can tell you honestly that if I didn't take it, I couldn't work, the pain is that bad.

FW: No, I am not a pill popper, I probably did things like take something, and a hot bath, or something to relax the muscle, that's about it.

FW: Yeah, I use traditional foods. I live on oolichan grease, I would let you try it, but I don't want to make you sick, you have to grow up on it.

Self-medication was fairly common among the workers I spoke with, but some workers did see doctors for injuries or health concerns, and filed successful claims. Some examples of injuries and diseases that were accepted by WorkSafeBC were hearing loss, bursitis, carpal tunnel, injuries related to cuts or falls, and heart disease due to the stressful work environment which caused them to take time off work. When claims were accepted, many workers were put on what they called "light duty," the Return-to-work program that is organized via WorkSafeBC. As detailed on their website, the Return-to-work program not only can help employees ease back into the work force, it also saves the companies money.

You can improve your experience rating by helping injured workers return to work. When it comes to your WorkSafeBC insurance costs, it's not the number of claims that counts, but the cost of those claims. A good return-to-work program can help lower your injury costs...A return-to-work program is based on the philosophy that many employees can safely perform productive and transitional work as part of their recovery process. Workers benefit from a return-to-work program by: Being able to perform meaningful work; Maintaining income levels; Retaining status within company; Preserving sense of attachment to the work place and to co-workers; Quickening the recovery process; Unions also benefit by protecting the employment and employability of their members

(WorkSafeBC²²).

The workers I spoke with who had experienced the Return-to-work program at their plant were generally quite happy with the experience because they were able to work, which was what they wanted to do. An example is the following worker who experienced an injury while doing work for the company unrelated to fish processing, was compensated, and then was able to perform light duties until he was able to perform his normal work responsibilities. He states:

FW: No, I did get comp [worker's compensation] for one of them, but it wasn't on a, on a site job. It was just an accident that happened off work, but I still got compensation, but it wasn't very much, so I actually went to work with a sling and I still had a bandage on my forehead and all...but the boss was pretty nice about it though, cause he let me do, let me do my job one-handed and all, and take my time with it and all, I guess it was just called light duty.

I: Oh, ok. So you had different responsibilities that you could do.

FW: Yeah, cause uh, cause I could lift with one arm with the shovel, and that was fine, but back then I was just a fish washer, and a header and all that stuff but they uh let me do the jobs that I could do.

In this worker's case, he was grateful to his employer for allowing him to return to work, and do what he could, because the compensation he was awarded was not, as he said, very much. This was not always the case though. In one interview a situation is described where an employee was allowed to return to work, but was experiencing difficulty in actually performing the task properly.

FW: We had a guy who had a fishbone in his finger, he went to the doctors, had it operated on, had it pulled out, and they told him, oh you can grade with one hand. Well you've 15-20 different species of groundfish going by you and you're going to have to pick out maybe four

²² www.worksafebc.com

or five different kinds of them with one hand, that hands going to go. I get kind of choked up about that but there is nothing I can do. I advise him, say go back to your doctor and say this is what they're making me do, and try to get a doctor's note to say, 'No, this person, like, to specify, this person cannot do this type of work.'

This worker also identified the lack of knowledge held by doctors regarding OHS in the fish plants, and how this can affect workers returning to work for light duty, both in their ability to do the job asked, as well as the ability of the injury to heal.

KI: I give them a form and it's basically a list of different categories saying this person can only walk up so many flights of stairs and this person can only carry so much and, uh, it's good but it's very vague. And a lot of the doctors don't understand that somebody can carry 10 pounds and move it, but if you're doing that fifty, sixty times in an hour, they don't understand that. And there are people that are, yeah, I can move ten pounds but doing that fifty, sixty times in an hour you're going to start getting injured again, or you're going to compound your injury.

This example highlights the importance of health workers, whether it is first aid officers or in this case doctors, to know and understand OHS concerns, the nature of the job, and specifically the injuries and illnesses that are associated with the work environments where their patients are employed. Ignorance of these issues can negatively impact the ability of their patients to heal.

4.3 Social-Ecological Restructuring and OHS

I now turn my discussion to the intricate and complex ways that OHS can interact with wider social-ecological restructuring to affect the health of individuals and communities. Community health includes factors such as safety, services available, education, employment opportunities, and personal enjoyment/contentment with the community which, in turn, influence factors such as desire to raise children in the

community or to grow old there (Dolan et al. 2005). OHS can affect individuals outside of the workplace due to the ways work and health, health and life, and work and life are all interconnected. Therefore when an employee is injured at work, and is no longer able to work for a set period of time, this can interfere with this employee's ability to perform duties outside of work, or for many women, perform their unpaid work of childcare and or housework. In the interviews, the workers I spoke to who had experienced an injury discussed the various ways this had affected them outside of work. For one, the arthritis in her hands made it difficult to open food jars and cans on a daily basis, while another worker discussed how he no longer socialized because he could no longer hear what anybody said. Unfortunately, WorkSafeBC denied this worker a hearing aid.

FW: Yeah, not only at work but home, family, I don't even go to family functions anymore because of my ears, can't hear what people are saying.

FW: Yup. Your elbows and your hand because, like, I can't open a bottle, like mustard or jam. I have to hit it with a knife. Cause I am here alone, my grandson is at school, my son and his girlfriend were here. They were here - nope. Couldn't do that. Cost too much on the grub (food). Cause those three they ate.

Many of the fish processing workers were responsible for others living in their homes, including spouses, children, grandchildren and parents. This added responsibility increased their expenses and the levels of stress they experienced in response to the restructuring of the industry and associated reduced working hours and incomes. Even those high on the seniority list were not making enough hours to qualify for EI, so the impacts for those lower down are that much more amplified, as would be for single parents, female headed households, and first nations who would experience multiple

struggles regarding employment opportunities. The industry restructuring has also decreased the number of employees in the plants, increasing the workload of those remaining.

FW: No, I think the biggest stress nowadays on people is the finances. How are they gonna make it through now that they're not getting the UI? I mean even this year, for us all of the tradesmen are left kinda scrabbling because their income is down. We'll get through, we only get laid off for 6 weeks, seven weeks at the most, which is nice, but...

FW: How do I find the stress? I deal with it a lot better now than I used to. It put me in the hospital at one time. Dealing with things, and I wasn't dealing with all the things properly, not sleeping and stuff and I started getting palpitations, and one day it just stopped for a little bit. It wasn't a heart attack, it was just a wake-up, hey buddy. I spent four days in the hospital hooked up to a machine so they could monitor it, and the doctor came in and he says, "You're not doing this and you're not doing this, you're not doing this, and you're not doing this anymore, we're going to put you on this. I wouldn't take medication, too stubborn, don't like taking it.

FW: Actually yeah, it is stressful now. The last manager, he was strict but he was fair, and the guy I am working for now, you got to work twice as hard. And the cutbacks of people, for example when we unload there use to be two forklift drivers outside all the time, one taking the tote out with, uh, the full sockeye salmon or whatever, and another guy taking out an empty tote. Now there is just one driver out here. He has to do all that. And there use to be two forklift drivers in here too, one for helping put totes on the scale to be slushed and weighed, and one for taking off a whatever we, whatever the forklift driver puts in there to be weighed. Now it's just uh, one driver in there too, and that's stressful for them too.

I: So you've had to do a lot more work, with a lot less people?

FW: Yup, exactly.

PM: It just doesn't seem like we're, like when I first started here back in the mid-nineties and stuff, I mean there was people lined up at the door trying to get work. I mean lined up; I mean you had to put a sign up on the door saying we are no longer accepting applicants. Now over the last three years since I have taken over as manager, we are begging people to come to work. Can't get them to come to work. We used to fire people, new hires because of not showing up to work, or drunk and stuff, now we'll

say, don't let it happen again, cause that's how hard it is to get people. Over the last two years of the salmon season, not so much this year, but it just went by the last two years, I was planning on hiring anywhere from fifty to seven-five people; I got thirty and then, by then the end of the season, I had fifteen left. So it's just been a total struggle, so what that does is, it just puts more of a burden on your top seniority people, your older people. Now they go to work overtime and they got to work longer hours and by the end of the week they are just worn out, and then that starts resulting back in the health and safety, so.

In one plant, the new plant manager was contributing to a significant amount of stress among all of the fish processing workers who worked in that plant that I interviewed. They described not only the increase in work due to cutbacks, the assignment of erratic and redundant work tasks, a switch in focus from high quality to high production, as well as improper processing practices which was attempted to be blamed on the workers. One worker said the only reason the plant was still operating was due to the highly experienced and knowledgeable crew, who ran everything. The employees disliked the manager and felt he was not competent to do the job. This situation was increasing the amount of stress in their lives, and that had consequences outside of work. Due to the precarious circumstances of the fishery, the workers were willing to allow the plant to function and to have the manager get all the credit in order to protect their employment. The alternative would have been to let the plant fail and rid themselves of the manager, but also, potentially, their jobs.

FW: Oh yeah, yeah. Like I said, since that new management started there is a lot more now, a lot more stress. Like when was it, three month ago or two or three months ago, I had to go to see a heart specialist because my heart was acting up, and they told me I was stressed and had anxiety. That never happened to me before, until the new management started.

FW: Sometimes. Sometimes with the boss, he does some weird things, he

tells us to load a truck and we load it and then he says no it's the wrong truck, or if it's not the wrong truck, it's the wrong weight, and so we have to unload it and then load it back up, and sometimes we do the same truck three times...so that, that in an of itself is a bit stressful.

FW: You know there are quite a lot of the other, you know management, supervisory people down south, that do realize what's going on here. It's, I can't overemphasize this, it has gotten dysfunctional; it's not working. The only thing that keeps the plant working is that the people that are left there, we still - we, they, still care about, they're going to do a good job. You know it's built in, it's just the way we are, and we are not going to let it go. But it's working kind of cross purposes because we prop him up and they think things are going well. If we started doing things totally the way he is telling us to do things, things would fall apart. But then there is another point to that...if that happens, then maybe the plant goes under, we don't have jobs. Right, so you look at that too, you know you feel horrible, my God I am just propping him up, but you know it's one of those necessary evils or what have you.

FW: There were a lot of really bad experiences with him. Before I had to work with him directly on herring season, he made my life hell. And doing maintenance, I use to work year round doing maintenance, um, I stopped doing it, um because one, the period we do during the winter and I was miserable, I was unhappy, you know all that working directly for him for that period of time. During the summer I wouldn't have to and then one year came along where we were quite busy handling fish and I noticed that I was really a lot better and had to ask myself, 'Why am I feeling so miserable?' It's because of having to work for that asshole.

One story about, this is the herring freezing. There's two shifts, two twelve hour shifts,... and I am handling the day shift. But uh, it's part of the whole freezing process, the end part of it is. We call it the finishing freezer; it runs through there and gets it down to the required temperature, but it needs to be regularly defrosted. What's happening on day shift, whenever we were defrosting we are producing quite a lot of inferior fish, like they are not cold enough, the fish is still wet, you know they're not solidly frozen, it's happening all the time. So talk to night shift and they're not having this problem. What's going on? Obviously the head engineer doesn't know what the hell he's doing (the manager). But when we have that problem, we have to identify, you know they go into a big cardboard tote or whatever, and these fish are wet, and they're supposed to be individually frozen. What'll happen when they go in, they'll freeze together, right? They'll stick together, so when it goes down to Vancouver, they want to dump the tote and thaw them out so they can pop the roe,

well they've got one solid mass of fish. So we put an X on these fish. So one day he notices that we are putting an X on these fish - well why are you doing that? The fish is wet, they have to be identified for Vancouver so they know they are going to have a problem with these totes - well no we can't have that, jeez we're going to look, this is not going to look very good for us. And he turns it around to the, well that I should be getting together with him and figuring out some way to shift the responsibility for those totes onto night shift, as if night shift produced those, so what I am suppose to do, lie for him, to cover his ass? It's pretty sick. He's just concerned about himself, doesn't want to look bad. The really stupid part in all of this is there is no way to do it. Because if he was at all aware of the way the production goes, the tote is taken away, put on a scale, weighed and the exact time that it passed over the scale is recorded. He didn't even figure that out; he figured there was that we could make it look as if night shift was having the problem instead of day shift. That's sick. Working for somebody like that...

FW: I mean in, shall we say, these older days, there just wasn't any real stress. Where his priority is production and looking good. He can say, look I am doing 13 ton an hour. But the quality is terrible you know? I am feeling responsible for that part, because as far as the fish processing part, I look at production and quality, where he is just looking at production, and what can I do? Yeah, so a lot of stress with that. But I see him doing some completely stupid things, that are actually losing the company money and they think he is doing a good job. That's stressful, you know, that's the type of thing, I just can't totally walk away from it.

Stress seemed to affect both men and women. The women fish processing workers who filleted identified stress as being caused by the struggle to get the desired poundage of fish done in a shift, especially if they were standing at the end of the line where the fish are smaller. While they did not get docked for not making the poundage, they made more if they went over, thus there was an incentive to work harder and faster.

FW: There was when you were filleting for pounds. Cause you had to get your pounds.; for anything else, not really, just that. When they stopped the fillet, they stopped the groundfish; especially if you were at the end of the belt where the small fish came, you had to work harder and it was stress, you know, but other than trying to get your pounds, no. Yeah, I don't think they docked anybody that didn't get their pounds did they? I

don't know. But the idea is that you had to get it.

FW: But you were paid a little bit extra if you were going over, yup.

FW: Used to get up with a smile on my face and jump out of bed and happy to go to work. Now it's like, Oh Jesus, is it that time already?

The relationship between stress on the job and health for these workers is apparent.

There is an obvious spillover in the amount of stress one feels at work and one's quality of life and quality of health. The stress that these workers have experienced has increased with the decrease in the available employment due to the political, industrial, and environmental restructuring that has been occurring. They have been struggling to get enough hours to be eligible for EI so they have enough income to get through the year. As their work season has decreased in length leading to lower incomes, another aspect of their health that has been affected their daily diet. Food that is considered healthy, for the most part is more expensive than food that is less healthy (Parish et al. 2007) This disparity is particularly prevalent in places like Prince Rupert where the cost of fresh fruits and vegetables is quite high. Access to nutritious food is especially an issue for First Nations, who have the highest rates of disease and illness in Canada. One explanation for this disparity is that First Nations are less able now than in the past to access and harvest their traditional foods. Along with the higher rates of poverty, poor diet has been linked to the higher rates of poor health among First Nations (Turner et al. 2007). The relationship between the restructuring of the industry, food, First Nations people and health is discussed in the following quotes

FW: I mean, the diabetes killed her hey, that was one of the, for First Nations, it's a real horror story, and I think when, I've noticed it anyways,

and I'll bet you'll even see a higher increase in it when communities that depend on stuff, like Alert Bay, who depend on the fishing resource and Port Simpson and areas around here. If you get a little bit of money what do you feed your kids? Kraft dinner? Instant Noodles? What's all that? It's all sugars, right? And they wonder why kids are obese and having so much problems. Yeah, well you don't feed them properly. They got to put something in the kid's belly.

FW: I shoot a moose a year. I take a whole moose, but by the end of the year I don't have much because a lot of the people will phone you up, can I have a few bucks? And I'll say, "You can't have money but I'll give you meat." Cause I know a lot of people around here, when they get depressed it's the bottle, right? And at least this way, you know, they're going to eat...It's interesting, I mean you have your cyclical years where things go really well, and other years they don't, it's the nature of the industry right? But when it's man-made and political decisions and you see it (shakes head).

In Prince Rupert the socio-economic restructuring of the industry has impacted the fish processing workers severely. However, as the quotes above suggest, there are ramifications not only for the workers through increase in stress, depression, substance abuse, nutrition) but also for their families and communities. One of the recurring statements made by everyone that I spoke with was the belief that this was the end of the fishery. Most people stated in some way or another that they thought the fishery was dying.

FW: Well you know what, it doesn't look promising. Every year it's getting worse and worse; fishing time is less and less, not much fish out there as well, so I think it's dying myself.

FW: Uh, it's going down hill (the fishery). If I was young and able to do something else I would, but being 55...

FW: There is no future in it. Really because of a number of reasons, just the decline in stocks, which is due to under funding and mismanagement.

FW: No, I wouldn't recommend friends and family to work here, for the same reason I think, because there is no future in that. And then when you

get older, you suffer in your bones and you hear so many people that complain about arthritis and that.

KI: Nope. I would not recommend anybody. Like uh, the average age in the industry right now – you're looking at 45-50; it's an older generation. Unfortunately I am in it, but that's beside the point. No I would not recommend it to anybody. If you're in there a short time, it's fast cash and continue on, just use it as a stopover. The money's good, it can be very addictive. But there is more out there. It's better to get a low paying job that will pay you all year round than a high paying job that will pay you, if you're lucky, six - seven weeks of the year. Cause the industry, like the timeframe, is really short and it's getting shorter because of the loss of the fishery and no I always talk to people and say, "Hey you can do better than this, go back to school." And there is one guy, he is an assistant chef at Chances, and there is another guy who has gone to school and is now a heavy-duty mechanic. And I feel good that I am helping someone just get out of a dead end job. I am here, the only reason why I am here, like I got offered a job at the coal port, but that's shift work. I would make 8 dollars an hour more than I am making now, but because of the shift work I won't spend time with my daughter, and I am fifty five, I could drop dead tomorrow, so I want to spend as much time with her as possible. So, I'll take the crap that I am taking now, but the bonus side is I am spending time with her. That is the only reason why I am still there. If I was single or if it was just my wife and I, I would be in Alberta or Northern BC, like Fort St. John. With my ticket and my years experience I could make 30-40 dollars an hour. That's a good chunk of coin.

PM: I think so yeah. But I mean no one wants to get into the fishing industry because it's dying.

Working in an industry that is considered to be dying and to have no future could have negative health consequences for not only the employees who work in the industry and are constantly wondering if they are going to be working or not, but for the community as well.

4.4 Community

For many of the workers and managers I spoke with, the fish plants played a prominent role in the community, both as an employer and as a sponsor and source of donations for community organizations.

FW: Yeah, yes, because it employs you right, so it's income for a lot of people. And for some that don't really necessarily need the income it's just something to do, it's a sociable thing as well.

FW: It's always donated things to sporting events, and to the auction, and helps out down at the Halloween party for kids at the civic centre, like they always donate something to that. They are pretty good with donations. Like last year when I was in bowling they donated something for a door prize, that's because one of the other guys works in the office down there, so he got a little fish pack.

FW: It is quite important to the community. I mean it's a lot of jobs that support the community. We had the pulp mill, it's gone. You know the city's developed this cruise ship thing, which has brought some money into the community. Then you've got the container port, but as far as I'm concerned, well it is, you know the history, it's kind of the backbone of this community consistently over the years, an important part of it is the history of the fishing industry. Just about every person in this town has some link with the fishing industry, if nothing more than like a relative is employed in the fishing industry, or at least a friend or something, so it's a, this is a fishing community.

FW: Well I would think, summer time they hire a lot of people, well they used to hire, I don't know now. They used to hire a lot of people in the summer time and before when we had that sixty people for herring, that lasted a few years. So you know they hired a fair amount, but since I have retired they hire less and less, and I am not sure how they did the hiring. They advertised a lot. They sponsored a lot. Different events and that in town, you know.

FW: Oh yeah, and for the different advertising people, for the Native all winter games, or the basketball and that you see their advertising, and then for a lot of different things there was places a lot of them used to come for door prizes and that.

PM: The only thing I find in Prince Rupert is that we don't get the

recognition that we should. I mean we're probably one of the biggest employers in the town next to the city and the grain elevator, and there is not enough recognition in town for it. Not that you want to be praised saying McMillan is this, McMillan is that, but the only thing people know us for is from our stinky reduction plant. I mean it was three years ago when tourism started to come back to Prince Rupert. Mayor called me up and asked me if I could not cook on a certain day. In the summertime, peak season. I said sure, absolutely we'll stop cooking, but you need to phone around and tell all the other plants that they can't work tomorrow, so you're probably thinking about a 1000 people, 1500 people out of work for a day. That's up to you I said. He said oh no, don't get me wrong, if that thing is running it means everyone is working. And I said, "Exactly."

As these quotes explain, the fish plants have played a dominant role in the community, providing economic support to community events, as well as employment opportunities, but they have also played a historic role in defining the community as a fishing community. As one worker above stated, "just about everybody in this town knows somebody in the fishing industry" and therefore, just about everyone in the community would know someone who has been effected by its decline and restructuring. The last quote is an interesting dynamic between Prince Rupert as a fishing community, and Prince Rupert as a tourism town. The fact that the mayor was wanting to shut down the plant to help increase the ambiance, and thus appeal for tourist by removing the smell of dead fish wafting through the community, the reality of putting that many people out of work to do it, did not out weigh the benefits of a better smelling town. Thus while the lack of jobs due to the restructuring processes of the fishery has led to an increase in cultivating tourism in Prince Rupert, in reality the fish plants still employ a significant number of workers, that closing one for a day makes an impact. The closing of plants

that has occurred, as well as the shortened seasons have impacted all workers in the community, but youth especially have felt the ramifications.

Youth

In the past fish plants employed a significant number of young people during the summers. This work helped pay tuition for university, college or trade school, and offered a well paying job for those who, for many reasons related to race, ethnicity and gender as well as intersections between these, could not find jobs elsewhere.

The most severely impacted by the loss of jobs in the fish plants have been First Nation's women, because they have not had the same employment opportunities as even other female fish processing workers, of either ethnic or European descent. All fish processing workers though have a hard time finding alternative employment because of the age and education background of the majority of these workers limits their ability to have skills that would help them find employment opportunities elsewhere.

While cut backs in jobs and shorter seasons have meant the loss of the opportunities that fish processing plants offered for those who were not educated, easily employable elsewhere in the city, or who had no desire to work elsewhere, the employment opportunities that it offered youth in Prince Rupert has been greatly reduced, and the loss has left a gaping hole in its place.

PM: We're definitely not getting the young people like we used. Listen, you could tell any of the workers, like I could bring up the guy who has been working here for 45 years. He started working here when he was fifteen years old and he said he barely got in the door, he said he got lucky and got a job. Now you never see them.

FW: I started in, uh, 1978 down there, and it was really interesting because I graduated in '81 and, but what the companies used to do is they would actually phone the school, because the fish use to come in, because the season used to start a lot earlier, and they use to phone the school to see if we could actually get our exams done so we could get our butts down there and go to work.

FW: The kids that are educated spent it in the fishing industry as summer jobs, both ashore and in the boats, that they put a lot of kids through college or university or, you name it. And there's other things that have come out of it - doctors, teachers, professors, there is just no end to the education that the fishing industry paid for directly. And we educated a lot of both men and women; of course they were kids, boys and girls. And uh, of course in those days schools would ease up on women and were harder on the men, but, no, it was a pride in my, I felt a pride in my, that you help these people somehow, that there was a job there for them and they would come.

FW: There used to be a time when the kids that were going to university were making enough money to support themselves throughout the full year. But it's not like that anymore.

PM: We have to find something for our children to do. My children are all grown so it's not a concern to me, but if you drive downtown Prince Rupert on any evening, there are groups of kids, ranging from 12 to 17, wandering the streets. And it's becoming a real problem and nobody knows what to do with them. And I don't know what we can do to encourage them. We need to have jobs that are available. We need to have just a future for the kids.

These quotes discuss the significant role the fish plants played in their lives when they were young, and in contrast, the lack of a role it is playing for the youth in Prince Rupert today. Fish plants offered well paying jobs, income from which could be used to pay for your university, collage, or trade school tuition, or could provide the basis for a career in fish processing. In this last quote the plant manager refers to the increasing number of youth on the street in Prince Rupert due to the lack of work and future that exist for youth in the community. While having youth out roaming the streets in Prince Rupert is not

necessarily problematic, the increase in crime and drugs that have accompanied it and the larger changes in the town are significant issues.

Crime Rates

The decrease in employment opportunities in Prince Rupert and the related decreased socio-economic standing in the community, has contributed to a rise in the crime rates, substance abuse, poverty and depression. While the fishing industry and the fish plants have historically employed a large segment of the population in Prince Rupert, there have been job losses in other important resource-based industries, as well, such as forestry.

PM: There have been quite a few changes, and there have been quite a few changes to our workforce. We've always had people come in from the villages to work here, and we used to have a much larger East Indian community here, but, and a lot of people from the East Indian community used to commute in from Terrace and Kitimat. That number has shrunk considerably with the downsizing in the lumber community and the downsizing with our pulp mill. And a number of those people have moved out of town, and there's a few who still commute up, they come up for the summer from Vancouver, but we've lost a lot of people to Alberta.

KI: A lot of people were hopeful about the port coming in and a lot of people that are working at the port, it's not that much, not that much at all. I put my name in there, but the math; that's where I didn't pass was on the math part of it. If you don't use it you lose it. My attitude is, it's only a job, there's another one down the road. You just can't be fussy in what you do. People say, "I'm not working." And I say, "Well, McDonalds is hiring," and they say, "Its McDonalds." And I say, "It's a job, you know it will help at least keep you afloat until something better comes a long."

FW: You know, people who had a job, they are not leaving their jobs just like that anymore, they want to be sure they have something else.

As noted in the interviews, due to the uncertain nature of the economy in Prince Rupert, employment is scarce which has resulted in workers hanging on to whatever job they can.

The ramifications for OHS is that workers are more willing to stay in jobs that are unsafe, impair their health or aggravate a health condition, if they are worried that they may not find work elsewhere.

For Prince Rupert fish processing workers, the work has become unstable to the degree that if a worker can find employment elsewhere they are encouraged to take it, and keep it.

FW: and there's no work in this town for very many people. Like the ones that are working right now, my oldest son got a job, two of my older sons got a job. They quit the cannery, which was good for them, cause when they quit they wouldn't have gotten enough work so now they're working steady, both of them, one at XXX and one at XXX and everybody told them it's better for them to quit than to stay with the cannery and, like it was because they are working everyday and they get their two days off and then they're back at work again eight hours a day. Yup not us, we're like, when did we finish this year? It was early. End of August which last year was September 3 or something like that.

PM: There has been quite a few changes and there have been quite a few changes to our workforce. This year we didn't hire because it was such an exceptionally poor season. But next year, if we have any fish, we are going to probably have to hire at least 350 to 400 people. Which is becoming difficult now because the population in Rupert is shrunk so much. And all the other fish plants in Rupert are also hiring at the same time we are, along with the tourism industry, so the pool of available employees has shrunk.

Clearly stated above is the perceived link between workers' health and institutional restructuring. The fish plants, which were once a dominant and vital employer in the community, have been reorganized and downsized. The results have been negative for the workers who are laid off, who can't get their hours due to changes in government policies, and are either left on welfare or, if they are lucky, will find employment elsewhere. This, in turn, has exacerbated the stress on the workers in the

plants, and eliminated potential employees in the plants, as the jobs are no longer sought out and considered a good employment option, even for the short term. This reduction in employment has social and economic ramifications at the community level as well. In the interviews, many fish workers discussed the link between the loss of work in the fishing industry and the health of the community.

I: So would you say that the loss in work for people affects the community?

FW: Yes. Yes it does. All the way down the road it does because, if there's no money, than you don't spend as much as well right? So, you know how that all plays a part.

FW: Oh it will hurt it, that's no question. There's no logging, there's no fishing to speak of. You know there's seine boats. When Ocean first took us over in '84, they would bring 42 seine boats up here to fish for the company, now they have I think, 6. Gillnets have gone from probably 100-150 down to less than half that. Yeah, the fleets [have] decreased, that much.

KI: If you live in a village there is not many other things to do beside fish, right? So you either have to move away to Fort St. John because there is nothing in Rupert anymore, or you just are unemployed in the village. So fishing is a huge economic component in the First Nation communities. So the industry made a huge impact and it still makes a huge impact, and when we have a crappy year the town feels that, so when we had a good year, but it is nothing like it was. This town used to hop when the fleet was in, hop; now on herring, the taxi drivers don't even know it's herring, like five boats show up and fish all the herring and so, what's five boats? Herring lasts two days up here.

FW: Oh, it's negative. It hurts the community. It's less jobs. You know, we were talking earlier, it used to be 4 or 5 thousand jobs at least you know, fairly well paying jobs for at least a period of the year. And there used to be more year round and that's all, it's all declined. So obviously, so economically it affects the community, economically, psychologically, whatever.

With the loss of jobs, both in the plants as well as in other resource based areas, came a

major reduction in the population of Prince Rupert (See Table 3, p. 48). If people could find work elsewhere, they did. The interviewees suggested that those who left moved to Calgary or Southern BC, and those who left were the ones who had the money, education, and certification to do so. This not only increased the relative proportion of the First Nation population in Prince Rupert who often lack these skills (See Chapter 3, Table 3), it also decreased the number of businesses in the town. The loss of business in the area was apparent to me while I was there, as the major streets had multiple empty and boarded up storefronts. In the interviews, many people discussed the overall decrease in the population, and the benefits of finding work elsewhere.

FW: My oldest son, he is really aggressive. He's 45, lives in XXX, he works at the port, has a big money job, he's been trying to get his brothers and sister to go to some place like Vancouver, because the opportunities are so great. My second son, he is forty-four, forty-three, he works for the municipality of XXX...But my daughter lives in XXX which is just a little south of where my son lives and her husband works. But financially for both of them it was a good move, and uh, he was a mechanic, he was working here, but he wasn't working that solid. They have two daughters and this was a great move for him, he is making good money and they bought a house, and bought some goodies like a trailer and so they're enjoying themselves, so for both kids its been a good move.

FW: A large part of that though is like related to the pulp mill. When they closed the pulp mill, there was a mass exodus. I mean like our population, we were like in the 17,000, and when that happened a lot of people up and left for Alberta, you know the economic opportunity there and all that; our population dropped to something like 13,000. You know, a major loss of population, but that was not at all to do with the fishing industry. The last number of years, and fishing again, it's cyclical, it's up and down, although there does seem to be this gradual trend downwards, but it is still boom and bust; it's kind of like farming or whatever.

FW: Um, I volunteered at the polling system on the 14th of last month or this month, for the elections. The people that came out, it looked like a lot but it wasn't that many, cause there was a lot missing on our sheets and

you know, it's just sad. Other than that, when the all native comes in to town (for the basketball tournament), there's a lot of people in town then. That's only for one week.

FW: Well population has dropped. Oh yeah, a lot of people have moved. I have heard there is a lot down in Victoria. A lot of houses for sale. They say that the Port is suppose to boom, but I haven't seen anything yet.

FW: Uh, yeah, it's kind of sad to see. The population is probably down about 6,000 from what it use to be and it's everything, everything, as the industry starts to slow down. Like there use to be two, three, thriving commercial net and gear stores here to support the fleet. Now there is half of one. You know stuff like that but you go downtown and there is a lot of vacant buildings; the population has decrease. When things slow down, everything else around it slows down. It's kind of sad to see.

The population decline is a huge blow to the community, and to families. As the interviewees discussed, those who could left, and many families have split apart in order to find work. Therefore the ramifications of seeing your community decline, empty and boarded up, alongside the personal loss of family members and potential future jobs for children and grandchildren, as well as even yourself, has an huge emotional impact. It is not surprising that depression and crime rates have increased.

While I was in Prince Rupert, I was advised quite adamantly many times to not walk alone at night. For many of those I interviewed, Prince Rupert was no longer a safe town, and they considered their own safety to be at risk in the evenings.

FW: Downtown here on Saturday nights, Friday nights are the worst, the bar crowd is quite young, so they come out at the Rupert, like Tim Horton's use to be open 24 hours a day, I think now it's still open till 2 am. All the restaurants in that area close because they don't like the bar crowd and I mean they're wild, they're savages, and not just First Nations, I mean everybody. But it's even the middle of the road, you don't want to walk through there at night, you, your husband or your wife or your boyfriend or whatever. Maybe someone's going to think to say something, and pretty soon you're going to be swinging for your

life. Downtown is a real problem and when the bars close and the young ones that can't get in the bar meet the older ones coming out of the bar with booze and uh, someone is going to get killed one of these days.

FW: I am not too sure, young people it's not adults or anything like that so I don't know what's going on with them. Some people are getting pretty worried even about just leaving the bar at night. I don't think it even has anything to do with the bar but uh, it's just from walking around town.

FW: Getting higher, yep property crime and stuff, but B & E and stuff like is becoming...and I think a lot of that is because of drugs. Well yeah, it's a quick release right, so they're trying to do that to get out and that'll get the money to pay for it. Drugs are, crack is really becoming a big thing around here but it's cheap you know, and you see it and I see it a lot in the friends I use to hang out with in high school, I'm forty-five now, and I think there is maybe two of us, maybe three that are left. The rest all got killed by drugs and booze, I go like Holy Shit.

PM: For example, I used to go for an evening walk every night, and I no longer do that. Because the last couple of years, it, there's been so many gangs of kids floating around town, and it's becoming uncomfortable. And the tone has changed. It's, five years ago when I'd go for a walk and the kids would be heading down with their bottles it, they'd laugh and joke and it was good natured. And it's no longer good natured. And there's been incidents with people who have been working here, who have been assaulted up town after hours, and so it doesn't feel as safe as it used to. That might just be my impression, but it doesn't feel as safe.

FW: ...the amount of destruction you see the young kids doing to themselves and to property and why? Because they're fed up, they're pissed off. I mean, I know what I'm like when I've had enough, you know I can get myself in a lot of trouble because I can use my mouth. But they're promised everything, oh, we'll give you your education, we'll help you with this, and when they go, they create such a big bureaucracy that the kids don't know how to deal with it, or get around it, or they're denied, and then what? You just wiped out their community because you stole all their boats so they can't go fishing, because they use to pass the boat and license on to your kids, you know? You can't do that anymore, there's no more work in the plants because they won't let them go out and catch the fish, where do they go? They are growing up with all the pressure of society, you got to have this type of clothing, you got to have that. They come from a family that economically can't afford to buy it, they become depressed and they either get into the drugs or the

booze or they kill themselves, you know?

FW: With the crime it just getting worse and yeah, hearing about it the last few months, people getting beat up all the time, gang type people just jumping each other, jumping one person.

PM: When I first moved here the crime rate in town was pretty big. You go to a bar at night and the bar crowd was pretty crazy, then you brought in a lot of police. All it was, was just some fights and stuff, but over the last year now it's been, I mean you hear it on the news and in the papers and stuff, I mean the knife stabbings and stuff, little gangs going on, lots of that is starting to happen. I have noticed now more drug problems around town, so I mean the younger people are getting into that, getting workers shown up to work now drunk and stuff and so you end up sending them home and not bringing them back. Lots of stuff like that's been happening. Episodes where we have put workers through counseling, its been a few different things happening over the last couple of years for sure.

FW: This town has always been know for drugs and that, but it's gotten worse now. I found there's a certain, that group that has moved into town over the years and they have taken over the drug thing you know, there's a lot of drugs out there. More so now. The younger kids and yeah, so, in that respect there has been a lot of changes.

FW: And anywhere there are drugs, it's a bad thing. You know the kids nowadays, don't realize, it's not just kids, it's young people, young adults even, not realizing how bad the drugs are and what they can do to you. I worked at a place called XXX, and it was a residential program for, at that point, um, teenage girls that were pregnant. And ninety-nine percent of those children, well they were kids to me, some of them were like fifteen years old and already had two kids. And really a sad thing and you know, they've grown up with a lot of abuse, sexual abuse, drug abuse, alcohol abuse, you name it. So, it's a tough world, it's a tough world for these kids, hey? They just didn't realize how harmful, even drinking while you are pregnant can be for your unborn child, or doing drugs, or whatever, right? They'd grown up around it, so it was nothing to them. That's a sad thing; really a sad thing.

FW: Well there are not a lot of jobs now, so a lot of people are turning to selling drugs, a lot of the younger generation and what not, yeah, to make that almighty buck, right? These people have moved into the town over the years, and lots of drug money involved and fast cars and what have you so, they flash their money and what not and the other kids think it's glamorous, and you know.

The overall sentiment in these interviews relates to the increase in crime rates and substance abuse. But also raised are the effects this has had on the feeling of safety in the community, and the increasing anger and violence that the youth in the community are experiencing. There seems to be a direct relationship between the economic and social decline in the community, in large part from the restructuring of the fishery, and the increase in both crime and substance abuse that youth especially are partaking in. Unfortunately, alongside substance abuse and economic and social decline comes depression, as well as physical, and emotional abuses as well.

Another measure of community health is the evaluation of one's community as a place to raise children in and retire in. In the interviews, many of the workers discussed their plans to leave when they retired and were worried about raising their children in Prince Rupert. Their concern, and desire to leave, was due to their concern regarding high drug and crime rates, coupled with the lack of opportunities offered for their children's futures:

FW: Well, see my parents are gone now and there is really nothing for me except my kids, and soon they will be, they'll graduate this year and they'll be moving on so I will probably move to a different town. I have relatives, sisters, down in the Vancouver area too, so I'll probably move if that's where my kids go, to go to school and want to live, then I'll probably move. Umm, there's been a lot of changes in town now and there's a lot of drugs that have come into town, and lots of drug dealers, and it's going to get worse I am sure. And at one point it was a really nice place to live. It's still a nice place to live, lots of good people, but uh, as for safety, I don't know. There is just too much crap out there now.

FW: No, no. I used to think that I would, but now I don't think so. You know, as things change, as time goes on, yeah. So now, yeah, I will probably be moving in a few years. Grow old! I am already old. It's still

a nice place to live.

I: How do you think of it as a place to raise kids.

FW: I love it, well you see I had no problem. But the kids nowadays, you see them they're what, sixteen and having babies. Like a lot of them are getting put into foster homes cause the parents don't want them, and the girl and boy are too young. Mind you, we just had a chat with my grandchildren because two of my step-daughter's kids are pregnant, one, she is gonna be 20 this year and she is having her third one, already.

FW: Oh good. I don't know about now; it's getting a little bit scary, um, think about our kids aren't too bad, they come home, when they do go out it is kind of scary, we always worry about them

I: How old are your kids?

FW: 19, 17 and 16. I still worry about them though cause older 20 and 30's are going downtown and getting beat up, and I worry about them when they go out.

FW: Well, there's not much left here, I mean they are shutting schools down here, yep just shut down one here - Seal Cove, shut another down, they might shut down Port Ed, that's because the student base is really dropping. There is not the full time employment here like there use to be; there's a handful that are lucky enough to work year round like me and others, but that's the ports the only next thing that's bringing it in and that's maybe only a hundred people that work quite a bit, and the others, they're just picking up a shift here and there and where they can. I just do it because I figure, what the hell, if I can go and work three hours and make 400 bucks why not, you know that pays for my little hobbies.

KI: I am a little scared, cause I grew up in this town and I know what this town is like, and I have seen the seedy side of this town. There is a lot of drugs in this town, a lot. People don't realize in population size comparable to Vancouver we are just as bad, if not worse, like for junkies and that, and there's not just junkies, well to me junkies are heroin users, but there are other drugs than that.

Given the gender and socio-economic make up of seafood processors in Prince Rupert, and BC, as female, visible minority, and low income, and the unstable nature of the industry resulting from the opening and closing of plants, changes in the types of

species processed, and the larger political and economic instability in Prince Rupert, health at all levels has been compromised. In the case of the BC fishery, and Prince Rupert specifically, the interactions between environmental industrial, institutional, and social restructuring has ramifications for workers income, employment, education, physical and work environments, and health services, which is more highly impacted by those who are gendered or racialized in society. Dolan and Ommer (2008) state, “[t]hose who are already socio-economically marginalized are less likely to have the economic resources necessary to enable effective response and adaptation to increased stressors” (30).

In the BC fishery First Nations people are strongly impacted by the social-ecological restructuring and specifically the loss of jobs in the fish plants. The industry provided employment that is scarce otherwise and the OHS downfalls were outweighed by its economic benefits as described by Pinkerton (1987), who explains:

Indian shoreworkers of all ages expressed a preference for the fish-plant work over other jobs, even though these jobs often involved the pain associated with tendonitis, carpal tunnel syndrome, and back problems. Their refusal to complain may be partly related to fear of losing high seniority jobs: like fishers, Indian shoreworkers were often unable to attain jobs in other industries and could exploit family connection in fishing and shorework (260).

The responses from those I interviewed supported this statement, and described in detail the huge social and health cost the community of Prince Rupert (and individuals and families) has had to bear as a result of the multilayered restructuring process. There is a significant link between fish, people, culture, history, community and health in Prince

Rupert, and while the impacts of change over time have been largely devastating their situation has not been without hope.

FW: Well I just hope that things improve for everybody. You know, there is more fishing time, so there's more fish caught so that people can work.

FW: Well, I know it's not going to get any better but, it's wishing. Like hoping.

FW: No, it's, I think if I didn't have the ties to the industry I would be out. Or the family history, and the connection to the fish. And there is just no way I am willing to walk away from it yet. Come close, but things have always turned around, you know.

PM: I think it had really decreased and then it's starting to improve again, and hopefully this economic downturn is, this world wide economic downturn isn't going to affect it too much. There is still a lot of hope that the second phase of the port is going to get going and generate some jobs there, and house prices will increase, and there will be things available, but in the meantime right now things are sort of stagnant.

While the port has not yet brought the jobs it promised, there is still the possibility that this will provide jobs for the future. The Tourism industry is another economic option for returning wealth and health to the region. Currently, the main tourism is the regional Native basketball tournament and Cruise ships that stop over on their way to Alaska, as pointed out by those I interviewed.

FW: The All Native basketball tournament, gives them a big boost (hotels). When they come in to play ball they jack up all their rates through the roof.

KI: The city started to focus on tourism after the fishing fleets got smaller, and mill shut down. It became a point of call for cruise ships and sailboats, and they started whale watching and ecotourism.

Though Prince Rupert as a community will need more than hope and a small tourism industry to offset the changes brought on by the restructuring process, I did find that for

some, regardless of the current tough times, Prince Rupert remains their city of choice.

Most people I talked to had lived here all their lives, and for some, this is where they wanted to stay.

FW: I love it here. I will not move. Like if I won millions of dollars, no. I'd go away on a trip, but I'd always come back here.

FW: Oh I like it. I like it a lot. My wife and I talk about retiring in other places, like Prince George and Edmonton, turns out, we traveled there and different times of the season, winter time mostly we didn't like it. It was a lot different. Rupert weather we enjoy it, so turns out we are retiring here.

FW: But the town, I'd never leave

I: No, you want to grow old here?

FW: Yep, I love the area. An hour from my home I can be hunting I can be fishing, you know spring, New Years dinner, or whatever, just go out and drop the crab traps, troll around find a winter spring [salmon], you know why would you want, you know I went to school in Terrace, that first year, when I went back to school, it drove me nuts. When you get the saltwater and the sea water in your blood, you can't get it out, you know.

FW: It's great. It's a great place. It's a good community. I mean just scenically I think it's a very beautiful place, and you know XXX and I have done a lot of traveling and we have seen a lot of places and some of them are just gorgeous, there is this one place XXX that I'll remember for ever and hope to get back to again, but Rupert, it's gorgeous. The weather sucks a little, but it really doesn't bother me, And then after that, and the number one thing, is the people that are here. It's a nice community to be in. There are lots of nice people here.

FW: I don't think it's a bad place. I think it's a good place to raise kids. There is things happening here to but these things happen everywhere

These last quotes point out some of the more positive aspects of worker's thoughts on Prince Rupert and the fishery. There is an obvious connection that those I spoke with felt to the fishing industry, its ties to history and community, as well as to the community of Prince Rupert. Many people loved the beauty of and the easy access to the natural

resources that surround Prince Rupert. As well, many had family, friend, or community ties that they were not willing to leave, and they had a desire to remain hopeful that things would improve.

This chapter has discussed, through the voices and experiences of Prince Rupert fish processing workers, as well as the plant managers, and key informants, the myriad aspects of health that affect the lives of Prince Rupert fish processing workers. The OHS of fish processing workers is influenced by broader social-ecological restructuring of the fishing industry, as well as other resource based industries, which has increased the pressure to remain employed. This pressure has weakened unions, and increased the likelihood of workers working through pain and injury to reach their hours needed to receive EI. With the continued increase in unemployment rates, substance abuse and crime have become major concerns in the community, as has access to nutritious food. For the First Nation's population, unemployment is especially a concern given they are more likely to not find employment outside the plants if they lose their jobs. Thus, health at work is related to health at home and in the community.

Thus far I have discussed separately the social-ecological restructuring processes and its impacts on the personal, occupational, and community health of fish processing workers in Prince Rupert, in order to unpack each aspect. In the concluding chapter that follows I will merge these together and discuss their complex interactions and its impacts on health.

Chapter 5 Conclusion

Despite their central role in the fishing industry, British Columbian fish processing workers have received minimal attention in the body of research on fisheries. In this thesis I describe and examine the experiences, knowledge, and health of processing workers in Prince Rupert, British Columbia as well as statistical information on and their perceptions of health of their community in a context of industrial, institutional, social and environmental restructuring in the fishing industry.

I use a theoretical framework that draws on a feminist social-ecological approach to make sense of the changes that resulted from the restructuring processes in the BC fishery, as well as the variability and nuances of these processes. This approach directs attention to who is affected by these processes, how, and why based on categories of race, gender, and class.

This theoretical framework combined with in-depth, semi-structured interviews and statistical information, structured my research and analysis in a way that allows for workers' voices to be situated in a broad analysis of their current economic, political, social and ecological situation. Thus workers' experience and knowledge was used in tandem with insights from government and industry reports and statistics, and academic knowledge. At times workers' knowledge provided new information, deeper insights, or contradictions to the information I gained from government, industry and academic publications. On the other hand, the government, industry and academic information I acquired was helpful in providing me with a basis for understanding and situating the knowledge and information those I interviewed provided.

Through a social-ecological and feminist analysis, I have explored the way the regulation of the fishing industry affects the employees of the fish plants, their personal and occupational health, and their communities. Highlighted is the significant role these workers play in the fishery, and the value their knowledge plays in addressing OHS issues in their workplaces and communities.

Using a feminist social-ecological theoretical framework I discuss the restructuring processes. The institutional changes that occurred in the fishery in the last century, including the introduction of the quota system and the license buybacks decreased the size of the fishing fleet, and increased costs. These institutional changes were, in part, a response to environmental changes including stock declines and were associated with shifts in targeted species and the development of a new, major aquaculture industry in BC. Within the processing sector, interacting institutional and environmental changes contributed to increased corporate mergers and consolidations of fish plants, decreased hours of work, increased mechanization and changing work responsibilities. The processing industry restructuring has altered the demographics of the workforce, which has led to an increase in the proportion of aboriginal workers (reflecting the changes in wider community demographics), and a loss of both the number of youth workers and the amount of available work for youth workers, effectively creating a multi-ethnic workforce that is above the average working age in BC. The restructuring processes have also helped to undermine the strength of the union due to a loss in the number of long term, returning workers, and an associated reduction in employee interest in work-related issues. The current workforce consists, for the most

part, of female, aboriginal, middle aged, high seniority workers, in the core labour force, and a transient marginal workforce during peak times. These transient workers are barely in the plant long enough to be trained properly, let alone fight for benefits and working conditions.

The decrease in union strength is a significant issue for this workforce as the interviewees highlighted the role the UFAWU played in the past in protecting the workers' rights in the workplace, and securing wages, pensions, and new work opportunities in the plants. The unions also helped workers create more work in the plants in a given season by negotiating the inclusion of new species to processes, and fighting to increase the amount of processing done in Prince Rupert, versus Vancouver or elsewhere, something remaining workers were desperately trying to achieve. One reason for their desperation is the institutional restructuring of the EI program which means workers need more hours to qualify for benefits. The social positions of fish processing workers, a majority of whom are female, aboriginal, or visible or nonvisible ethnic minority workers, middle aged, and generally living not far above the poverty line, have created racial, economic and educational barriers for these workers making it difficult for them to gain employment elsewhere when there is no work in the plants. These have also left social assistance programs as the only viable alternative options for these workers.

Most of the workers interviewed for this study had been employed in the plants and community their whole lives, and thus the hardships felt by the plants and the community, are their hardships. Many were deeply connected to both community and

employment, some for economic and employment reasons, but also for spiritual, cultural, familial and historic reasons.

Interactive institutional, industrial, and environmental restructuring processes have in turn contributed to the social restructuring of the community of Prince Rupert. The loss of work in both fishing and processing, in tandem with the decline in other resource based industries, has contributed to population decline as people leave to find employment elsewhere. Outmigration has not only left the community of Prince Rupert economically and socially weakened, but has also broken up families, and increased stress levels as money and alternative employment options have become scarcer. Depression and substance abuse linked to restructuring have further impacted the community and its residents. Those residents who have the least amount of education and lack transferable skills – namely youth, aboriginals, and women, have been hardest hit as they have been the least able to find alternative employment options in the community.

Given this larger context, workers report increasing their willingness to work through injuries to ensure they make their hours. The vulnerability of the industry has created a situation where workers are willing to work in high stress situations in order to ensure that their job is not lost. Workers identified potential and real OHS concerns in their plants including inadequate plant managers, OHS committees, and first aid attendants, as well as significant barriers to filing OHS claims that were further hampered by racial and gendered bias in the process. The stress of trying to gain employment and remain employed appear to have contributed to depression and substance abuse.

Depression and substance abuse, in return, were seen as contributing to the complexity of OHS issues and concerns in the workplace. Depression and substance abuse, as well as the increase in crime rates largely associated with the lack of options for youth, contributed to a poor community health environment.

In summary, the health of these workers has been influenced by the health of the fish stocks, which are linked to fisheries management and harvester action, as well as by both global and domestic economies, government regulation and policy, industry expansion and contraction, ownership and control of seafood processing plants, technological changes, and unionization and gendered and racialized labour markets.

My analysis of the interview data highlights the ways that gender, race, and class created layers of oppression, with the loss of work affecting women, and First Nations women the most. Not only were women's jobs more concretely connected to the fish stocks – they only worked when the fish were in – many also still faced barriers to attaining access to jobs in the plants that were highest paid and provided work for a majority of the year. In addition, for First Nations women, the loss of jobs in the fish plants was significant as the fish plants offered guaranteed work and racial discrimination limited their employment options elsewhere in the community. Some interviewees indicated that racial and disability concerns were also present in the WorkSafe BC claims process. These racial and disability concerns are further hampered by the lack of knowledge about OHS concerns for workers who hold social positions different from white male able-bodied workers.

Those I interviewed described various coping strategies they used to deal with the effects of interactive restructuring on their health including: self medicating; finding new processing work for the companies which included fighting to keep work in Prince Rupert; and covering for incompetence in their workplace in order to remain employed. Overall, the ramifications of the restructured fishing industry for the workers' jobs and communities were severe enough that many planned to leave at some point. Others were so connected to their work and community that they wanted to stay anyway.

While most of this research is specific to fish processing workers in Prince Rupert, the study adds to the body of literature that argues for a more comprehensive look at restructuring, taking into consideration not just the economic and resource ramifications, but also the personal, occupational, and community health consequences of interactive restructuring in communities that rely on these resources to survive. The study also lays the groundwork for a more comprehensive study of fish processing workers in BC's rural coastal communities, as a more coast-wide study of the effects of restructuring processes on fish processing workers is needed to more clearly understand its consequences.

Bibliography

- Abrams, H. 2001. A Short History of Occupational Health, *Journal of Public Health Policy* 22 (1): 34-80.
- Agarwal, B. 1998. The Gender and Environment Debate, In R. Keil, D. Bell, P. Perz, L. Fawcett (eds), *Political Ecology: Global and Local*. London: Routledge. 193-216.
- Barndt, D. 2002. *Women, Work, and Globalization on the Tomato Trail*. Oxford: Rowman & Littlefield Publishers Inc.
- Barndt, D. 1999. *Women Working the NAFTA Food Chain: Women, Food and Globalization*. Toronto: Second Story Press.
- Barnes, T. J., Hayter, R., E. Hay. 2001. Stormy Weather: Cyclones, Harold Innis, and Port Alberni, BC. *Environment and Planning A* 33(12): 2127-2147.
- Bang, B. et al. 2005. Exposure and Airway Effects of Seafood Industry Workers in Northern Norway *Journal of Occupational and Environmental Medicine* 47: 482-492.
- Barnett, R.C. 2006. Relationship of the Number and Distribution of Work Hours to Health and Quality-of-Life (QOL) Outcomes. In Perrewe, P.C., and D.C. Ganster (eds), *Employee Health, Coping, and Methodologies: Research in Occupational Stress and Wellbeing*. Elsevier Ltd (Vol.5): 99-138.
- Barraclough, R.M. et al. 2006. Sensitization to king scallop (*Pecten maximus*) and queen scallop (*Chlamys opercularis*) proteins *Occupational Medicine* 56: 63- 66.
- Beamish, R. et al. 1999. The Regime Concept and Natural Trends in the Production of Pacific Salmon. *Canadian Journal of Fisheries and Aquatic Science* 56(3): 516-526
- Berkes, F. 1999. *Sacred Ecology: Traditional Ecological Knowledge and Community-Based Sustainable Development*. London: Belhaven Press.
- Bonlokke, H. J. et al. 2004. Respiratory symptoms and ex cytokine release are associated in workers processing herring. *International Archive of Occupational and Environmental Health* 77: 136-141.
- Boyd, C. 2001. HRM in the Airline Industry: Strategies and Outcomes. *Personal Review* 30(4): 438-453

- Branch, T.A., Rutherford, K., and R. Hillborn. 2006. Replacing Trip Limits with Individual Transferable Quotas: Implications for Discarding. *Marine Policy* 30: 281-292.
- British Columbia. 2007. Ministry of Environment, Map of British Columbia Licenced Fish Processing Plant. <http://www.env.gov.bc.ca/omfd/fishstats/proc/processor-map.html> (Accessed on February 28, 2007).
- British Columbia. 2008. British Columbia's Seafood Industry's Year in Review. Oceans and Marine Sciences Branch Statistical Publication. Updated September 2008. <http://www.env.gov.bc.ca/omfd/reports/YIR-2007.pdf> . Accessed on May 28, 2009.
- Cambell, M. 2004. *Cannery Village: Company Town* Victoria: Trafford.
- Casey, K., Dewees, C.M., Turris, B.R., and J. Wilen. 1995. The Effects of Individual Quotas in British Columbia Halibut Fishery. *Marine Resource Economics* 10:211-230.
- Chung, J., Cole, D., and J. Clarke 2000. Women, Work, and Injury In T. Sullivan (ed), *Injury and the New World of Work*. 1st edn. UBC Press, Vancouver.
- Coasts Under Stress. <http://www.coastsunderstress.ca/home.php> Accessed on March 24, 2008.
- Copes, P., and A. Charles. 2004. Socioeconomics of Individual Transferable Quotas and Community Based Fishery Management. *Agriculture and Resource Economics* 33(2): 171-181.
- Dai, S., and M. Taylor. 2008. *Socio-Economic Restructuring and Health*, Germany: Vdm Verlag.
- Daly, H. 1990. Toward Some Operational Principles of Sustainable Development, *Ecological Economics* 2: 1-6.
- Dolan et al. 2005. Restructuring and Health in Canadian Coastal Communities, *EcoHealth* 2:195-208
- Dolan, H., and R. Ommer. 2008. Climate Change and Community Health: Lessons from Canada's East and West Coasts. *Journal of Rural and Community Development* 2(3):28-46.
- Dolan, H., and D. Thien. 2008. Relations of Care: A Framework for Placing Women and Health in Rural Communities. *Canadian Journal of Public Health* 99(2): 38-42.

- Felt, L., Neis, B., and B.J. McCay. 1997. Co-management, In J. Boreman, B.S. Nakashima, J.A. Wilson, and R.L. Kendall, (eds). *Northwest Atlantic Groundfish: Perspectives on a Fishery Collapse*. Bethesda, Md.:American Fisheries Society, 185-95.
- Frohlich, K. L., Ross, N., and C. Richmond. 2006. Health Disparities in Canada today: Some evidence and a theoretical framework. *Health Policy* 79 (2):132-143.
- Garner, K., and B. Parfitt. 2006. *First Nations, Salmon Fisheries and the Rising Importance of Conservation*. Report to the Pacific Fisheries Resource Conservation Council, April 2006, Vancouver.
- Gislason, G.S. 2007. Seafood Business Assessment. Chapter 7 – BC Seafood Processing Industry BC Seafood and Recreational Fishing SWOT (Strength Weakness Opportunity Threat). GSGislason & Associates Ltd. <http://www.env.gov.bc.ca/omfd/reports/SWOT/>
- Gnam, W. 2000. Psychiatric Disability and Workers' Compensation In *Injury and the New World of Work* (ed) T. Sullivan. 1st edn. UBC Press, Vancouver
- Grafton, R., and H. Nelson. 2005. The Effects of Buy-Back Programs in the British Columbia Salmon Fishery. Prepared for International Workshop on Fishing Vessel and Licence Buy-Back Programs. Institute of the Americas. University of California, San Diego, La Jolla, California. March 22-24 2004. Revised January 2005. http://een.anu.edu.au/download_files/een0505.pdf Accessed on March 15, 2009.
- Grzetic, B. 2002. *Between Life and Death: Women Fish Harvesters in Newfoundland and Labrador*. MWS Thesis, Memorial University.
- Guppy, N. 1987. Labouring on shore: Transforming Uncommon property into Marketable Products, In P. Marchak (ed) *Uncommon Property: The Fishing and Fish-Processing Industries in British Columbia*. Toronto: Methuen Publications.
- Hanlon, N., and G. Halseth. 2005. The Graying of Resource Communities in Northern British Columbia: implications for health care delivery in already-underserved communities. *The Canadian Geographer*. 49(1): 1-24.
- Harris, D. 2001. *Fish, Law, and Colonialism: The Legal Capture of Salmon in British Columbia*. Toronto: University of Toronto Press.

- Harrison, D. and N. G. Power. 2005. Lessons from India: Applying a "Third World Framework to Examine the Impacts of Fisheries Crisis on Women in Newfoundland Villages,". *Advances in Gender Research*. 9: 61-87.
- Holland, D. et al. 1999. Do Fishing Vessel Buyback Programs Work. *Marine Policy* 23(1): 47-69
- Hopkins, A. 2006. The Australian Epidemic of Repetition Strain Injury: A Sociological Perspective In *Working Disasters: The Politics of Recognition and Response* (Eds) E. Tucker. 1st edn. Bay Publishing Company, New York.
- Howse, D. et al. 2006. Gender and snow crab occupational asthma in Newfoundland and Labrador, Canada, *Environmental Research* 101: 163-174.
- Hutchings, J. A. 1996. Spatial and Temporal Variation in the Density of Northern Cod and a Review of Hypotheses for the Stock's Collapse. *Canadian Journal of Fish Aquaculture and Science* 53: 943-62
- Hyatt K.D. and B.E. Riddell. 2000. The Importance of "stock" conservation definitions to the concept of sustainable fisheries, In *Sustainable Fisheries Management: Pacific Salmon* (Eds) Kundsén et al. 1st edn. Boca Raton Florida: Lewis Publisher
- Ilcan, S. 1986. Women and Casual Work in the Nova Scotia Fish Processing Industry. *Atlantis* 11(2): 23-34.
- Inhorn M.C. and K.L. Whittle. 2001. Feminism Meets the 'new' epidemiologies: toward an appraisal of antifeminist biases in epidemiological research on women's health. *Social Science and Medicine* 53: 553-567.
- Jeebhay, M.F., Lopata, A.L., and T.G. Robins. 2000. Seafood processing in South Africa: a study of working practices, occupational health services and allergic health problems in the industry, *Occupational Medicine* 50: 406-413.
- Jeebhay, M.F., Robins, T.G., Lehrer, S.B., and A.L. Lopata. 2001. Occupational seafood allergy: a review *Journal of Occupational and Environmental Medicine* 58(9): 553-562
- Jeebhay, M.F., Robins, T.G., and A.L. Lopata. 2004. Word at work: Fish processing workers. *Occupational Environment Medicine* 61: 471-474.
- Jennissen, T. 1992. Health Issues in Rural Canada. *Government of Canada*. Depository Services Program. BP-325E. [http://dsp-psd.tpsgc.gc.ca/Collection-R/LoPBdP/BP/bp325-e.htm#\(1\)](http://dsp-psd.tpsgc.gc.ca/Collection-R/LoPBdP/BP/bp325-e.htm#(1)) Accessed on June 26, 2009.

- Jenson, J. 1990. Representations in Crisis: The roots of Canada's permeable Fordism. *Canadian Journal of Political Science* 23(4): 653-683.
- Johannes, R.E. 1998. The case of data-less marine resource management: Examples from tropical nearshore. *Trends in Ecology and Evolution* 13: 243-246
- Lamson, C. 1986. On The Line: Women and Fish processing Jobs in Atlantic Canada. *Relations Industrielles* 41:1.
- Layton, E. 2005. *Dying Hard: Industrial Carnage In St. Lawrence Newfoundland*, 2nd Eds (Dying Hard: The Ravages of Industrial Carnage, 1975) Boulder Publications, Portugal Cove-St. Phillips.
- Leclerc, A. et al. 2004. Incidence of shoulder pain in repetitive work. *Journal of Occupational and Environmental Medicine* 61: 39-44.
- Map of British Columbia Licensed Fish Processors. 2007. Ministry of Environment, British Columbia. <http://www.env.gov.bc.ca/omfd/fishstats/proc/processor-map.html>.
- Maguire, J., Neis, B and P.R. Sinclair. 1995. What Are We Managing Anyway? The Need for an Interdisciplinary Approach to Managing Fisheries Ecosystems. *Dalhousie Law Journal* 18: 141-53.
- Massin, N. et al. 2007. Respiratory Symptoms and Bronchial Responsiveness Among Cleaning and Disinfecting Workers in the food Industry. *Occupational and Environmental Medicine* 64: 75-81.
- Markey, S., Halseth, G., and D. Manson. 2009. Contradictions in Hinterland development: Challengeing the Local Development ideal in Northern British Columbia. *Community Development* 44(2): 209-229.
- McCarthy, J., and S. Prudham. 2004. Neoliberal Nature and the Nature of Neoliberalism. *Geoforum* 35: 275-283.
- McDonald, J. 1994. Social Change and the Creation of Underdevelopment: A Northwest Coast Case. *American Ethnologist* 21(1): 152-175.
- McMullan. 1987. State, Capital, and the B.C. Salmon-Fishing Industry. In (ed) Patricia Marchak et al. *Uncommon Property: The Fishing and Fish Processing Industries in British Columbia*. Toronto: Methane Publications. 107-153.

- Menzies, C., and C. Butler. 2007. Returning to Selective Fishing through Indigenous Fisheries Knowledge: The example of K'moda, Gitxaala Territory. *The American Indian Quarterly*. 31(3): 441-464.
- Menzies, C. 2001. Us and Them: The Prince Rupert Fishermen's Co-op and organized labour, 1931-1989. *Labour* 48(fall): 89-109.
- Messing, K and J.P. Reverent. 1983. Are women in Female Jobs for Their Health? A Study of Working Conditions and Health Effects in the Fish Processing Industry in Quebec. *International Journal of Health Services* 13(4).
- Messing, K. 1998. *One-Eyed Science: Occupational Health and Women Workers*. Philadelphia: Temple University Press.
- Ministry of Environment. 2007. British Columbia's Fisheries and Aquaculture Sector. April. <http://www.env.gov.bc.ca/omfd/reports/BC-Fisheries-Aquaculture-Sector-2007.pdf> Accessed on June 29, 2009.
- Muse, B. 1999. Fleet Reduction in British Columbia's Commercial Salmon Fisheries: 1996-1998, Research Publication for the Alaska Commercial Fisheries Entry Commission, March 10, 1999. http://www.cfec.state.ak.us/RESEARCH/buyback/BC_BB_2.PDF Accessed on August 7, 2009.
- Muszynski, A. 1987. Shoreworkers and UFAWU Organization: Struggles between Fishers and Plant Workers within the Union, in P. Marchak *Uncommon Property: The Fishing and Fish-Processing Industries in British Columbia*. Toronto: Methuen Publications.
- Muszynski, A. 1996. *Cheap Wage Labour: Race and Gender in the Fisheries of British Columbia*. Montreal: McGill-Queen's University Press.
- Nahit, E S. et al. 2001. Short term influence of mechanical factors on regional musculoskeletal pain: a study of new workers from 12 occupational groups. *Journal of Occupational and Environmental Medicine* 58: 374-381.
- Nardander, C. et al. 1999. Fish processing work: the impact of two sex dependant exposure profiles on musculoskeletal health, *Journal of Occupational and Environmental Medicine* 56: 256-264.
- National Seafood Sector Council. 2005. Meeting the Challenge: Canada's Seafood Processing Industry Labour Market in the 21st Century. http://www.nssc.ca/NSSC_LMI_spread_E.pdf Accessed on February 17, 2007.

- Neis, B. and B. Grzetic. 2005. Environmental, Industrial, and Political Restructuring and the Health of Women Processing Workers in Newfoundland's Fishery-Dependent Communities, In M. Hessing, R. Raglon, and Catriona S. (Eds) *This Elusive Land*. Vancouver: UBC Press.
- Neis, B. and L. Felt. 2000. *Finding Our Sea Legs: Linking Fishery People and Their Knowledge with Science and Management*. St. John's: ISER.
- Neis, B. and S. Williams. 1997. The New Right, Gender and the Fisheries Crisis: Local and Global Dimensions. *Atlantis* 21 (2): 47-62.
- Neumann, R. P. 2005. Making Political Ecology, in A. Murphy ed, *Human Geography in the Making* London: Hodder Education.
- Newell, D. 1993. *Tangled Webs of History: Indians and the Law in Canada's Pacific Coast Fisheries*, Toronto: University of Toronto Press.
- Niezen, R. 2000. *Spirit Wars: Native North American Religions in the Age of Nation Building*. Berkley and Los Angeles: University of California Press.
- Ostry, A. 1999. Explaining the Link between Socioeconomic Status and Health. *Health Policy Research Unit Discussion Paper Series*. University of British Columbia.
- Ostry, A. 2000. From Chainsaws to Keyboards: Injury and Industrial Disease in British Columbia In *Injury and the New World of Work* (Eds) T. Sullivan. 1st edn. UBC Press, Vancouver
- Ommar, R. E. et al. and team. 2007. *Coasts Under Stress: Restructuring and Social-Ecological Health*, Montreal: McGill-Queen's University Press.
- Owen, M. 2000. Not the Same Story: Conducting Interviews with Queer Community Activists. *Resources For Feminist Research* 23(1/2): 49-60.
- Palsson, B et al. 1998. Absence attributed to incapacity and occupational disease/accidents among female and male workers in the fish-processing industry. *Occupational Medicine* 48 (5): 289-295.
- Parish, C., N. Turner, and A. Solberg. 2007. *Resetting the Kitchen Table: Food Security, Culture, Health and Resilience in Coastal Communities*, New York: Nova Science Publishers.
- Paap, K. 2003. Voluntary Put Themselves in Harms Way: The "Bait and Switch" of Safety Training in the Construction Industry, *Research in the Sociology of Work* 12: 197-227.

- Peck, J. 2001. Neoliberalizing States: Thin Policies/Hard Outcomes. *Progress in Human Geography* 25(3): 445-455.
- Pinkerton, E. 1987. Indians In the Fishing Industry, In P. Marchak (eds), *Uncommon Property: The Fishing and Fish-Processing Industries in British Columbia*. Toronto: Methuen Publications.
- Pinkerton, E. and D.N. Edwards. 2009. The Elephant in the Room: The Hidden Cost of Leasing Individual Transferable Fishing Quotas. *Marine Policy*.33(4): 707-713.
- Power, N. 2008. Occupational risks, safety, and masculinity: Newfoundland fish harvesters' experiences and understandings of fishery risks. *Health, Risk & Society*.10(6): 565-583.
- Power, N. 2000. Women Processing Workers as Knowledgeable Resource Users: Connecting Gender, Local Knowledge, and Development in the Newfoundland Fishery, In B. Neis and L.Felt (eds) *Finding Our Sea Legs: Linking Fishery People and Their Knowledge with Science and Management*: St. John's: ISER.
- Quilan, M., Mayhew,C., and R. Johnstone. 2006. Trucking Tragedies: The Hidden Disaster of Mass Death in the Long-Haul Road Transport Industry, In *Working Disasters: The Politics of Recognition and Response* (Eds) E. Tucker 1st edn. Bay Publishing Company, New York.
- Rayner, J., and M. Howlett. 2007. Caught in a Staple Vise: The Political Economy of Canadian Aquaculture. *Policy and Society* 26(1): 49-69.
- Reinharz, S. 1992. *Feminist Methods in Social Research*, New York, NY: Oakford University Press.
- Rennie, R. 2005. The Historical Origins of an Industrial Disaster: Occupational Health and Labour Relations at the Fluorspar Mines, St. Lawrence, Newfoundland, 1933-1945. *Labour/Le Travail* 55:107-142.
- Rocheleau et al. 1996. *Feminist Political Ecology: Global Issues and Local Experiences*. New York: Routledge.
- SafetyNet. <http://www.safetynet.mun.ca>. accessed on March 24, 2008.
- Samson, C. 2003. *A Way of Life That Does Not Exist*. London: Verso.
- Schwindt, R., Vining, A., and D. Weimer. 2003. A Policy Analysis of the BC Salmon Fishery. *Canadian Public Policy* 29(1): 73-94

- Sherson, D., Hansen, I., and T. Sigsgaard. 1989. Occupationally related respiratory symptoms in trout-processing workers *Allergy* 44: 336-341.
- Shkilnyk, A. 1985. *A Poison Stronger than Love*. New Haven: Yale University Press.
- Sinclair, P., and R. Ommer 2006. *Power and Restructuring: Canada's Coastal Society and Environment*, St. John's, NL: ISER Books.
- Somerville, M. 2003. Trainers and Learners Constructing a Community of Practice: Masculine Work Cultures and Learning Safety in the Mining Industry, *Studies in Education of Adults* 35(1): 19-34.
- Stainsby, J. 1994. "It's The Smell of Money": Women Shoreworkers of British Columbia. *BC Studies* 103: 59-81.
- Stainsby, J. 1991. "It's The Smell of Money": Women Shoreworkers of British Columbia. Master's of Arts Thesis. Simon Fraser University.
- Sullivan, T., and J. Frank. 2000 Restating Disability or Disabling the State: Four Challenges In *Injury and the New World of Work* . 1st .BC Press, Vancouver.
- Tamm, E. 2002. The State of BC's Coastal Communities: A Decade of Change 1993-2002. A Report to the 10th Anniversary Conference of Coastal Communities Port Alberni, BC. May 2-4 2002.
- Tourism Prince Rupert. <http://www.tourismprincerupert.com/firstnationshistory> (accessed on January 25, 2009)
- Townson, M., and K. Hayes. 2007. Women and the Employment Insurance Program. Report for the Canadian Centre for Policy Alternatives. November 22, 2007, 40 pages.
http://www.policyalternatives.ca/documents/National_Office_Pubs/2007/Women_and_the_EI_Program.pdf Accessed on June 27, 2009.
- Tucker, E. 2006. The Politics of Recognition and Response In *Working Disasters: The Politics of Recognition and Response* 1st edn. Bay Publishing Company, New York
- Turner, N.J., Parrish, C. C., and S.M. Solberg. 2007. Food Security in Coastal Communities in the Context of Restructuring: Coasts Under Stress, In *Resetting the Kitchen Table: Food Security, Culture, Health and Resilience in Coastal Communities* New York: Nova Science Publishers, Inc. 1-13.

- UFAWU. 1998. People Count Too: The Coho Crisis and its Impacts on North Coast Fishing Communities. United Fisherman and Allied Workers Union brief to Parzival Copes, Special Advisor to the Province of BC. April 17, 1998.
- UFAWU-CAW. 2007. An Analysis of the Area F Fishery. United Fisherman and Allied Workers Union Paper. Provided by the Union October 2008.
- UFAWU-CAW. 2008. United Fisherman and Allied Workers Union Presentation to Skeena Independent Science Review Panal. April 3, 2008.
- Weinstein, M. 2000. Pieces of the Puzzle: Solutions for Community-Based Fisheries Management from Native Canadians, Japanese Cooperatives, and Common Property Researchers. *Georgetown International Law Review* 12(2):375-412
- Whyte, D. (2006) Regulating Safety, Regulating Profit: Cost –Cutting Injury and Death in the British North Sea after Piper Alpha In *Working Disasters: The Politics of Recognition and Response* (Eds Eric Tucker) 1st edn. Bay Publishing Company, New York
- Williams, M.,J. 2008. Why Look at Fisheries through a Gender Lens? *Development* 51: 180-185.
- Wilson, K. 2005. Ecofeminism and First Nations Peoples in Canada: Linking Culture, gender and nature. *Gender, Place, Culture* 12 (3): 333-355
- WorksafeBC. http://www.worksafebc.com/publications/reports/statistics_reports/occupational_injuries/1997-2006/pub_10_20_50.asp (accessed on November 20, 2008)
- Wright, M. 2008. Building the Great Lucrative Fishing Industry: Aboriginal Gillnet fishers and Protest over Salmon Fishery Regulations for the Nass and Skeena Rivers, 1950s to 1960's. *Labour/Le Travail* 61(spring): 99-130.
- Yodanis, C. L. 2000. Constructing Gender and Occupational Segregation: A Study of Women and Work in Fishing Communities. *Qualitative Sociology* 23(3): 267-287.

Appendices

Appendix A: Statement of Ethical Issues

Confidentiality

The recruitment of fish processing workers for interviews will be done through the union. The union will inform fish processing workers of my research objectives and questions, and provide my contact info so they can contact me at their discretion. Recruitment of union reps, medical staff, government officials and OHS employees will be done via the phone (script attached). I will conduct all interviews, analysis of the data, and production of results personally. In the case of a challenge to my research, supervisors will be allowed to access my notes. Due to the geographical location of this proposed study, participants will be fluent in English. I will transcribe all interviews. The collected data will not be released to the public. The digital audio recordings will be stored on my password secured computer, with a back-up copy kept on disc in a locked drawer in my office in my home. Any written notes taken at the time of the interviews, as well as the written transcripts, will be stored with the back-up disc. Names of participants will be assigned numbers to maintain confidentiality and the master list of participants and participant numbers will be stored in a separate locked location. All materials will be stored in this way for a period of five years after publication, at which time it will be destroyed.

Informed Consent

The fish processing workers who have agreed to be interviewed will be asked to sign a consent form, a copy of which is attached to this application. The attached form points out both that participation is voluntary and that the individual has the right to withdraw participation at any point, or to refuse to answer any questions without any repercussions. The form also provides a brief description of the project's general objectives and the time frame of the interview. It promises confidentiality of information and addresses the use of the information by others. The participants will receive the consent form at the beginning of the interviews, at which time it will be explained to them and any questions answered. All participants will be of legal age to consent to participate in the research on their own. Due to the high proportion of fish processing workers who do not hold post secondary education, the consent form will be drafted in basic English. Participants will be given the option to provide oral (and digitally recorded) or written consent to address any fish processing workers who wish to participate, but are illiterate.

Privacy/Anonymity

Participants will be told prior to signing the consent form that all steps to maintain their anonymity will be taken, but due to the small community, it cannot be guaranteed. In the case of union representatives, plant managers, and government officials, their names will be confidential, but not their job titles – and as such will be informed of this in the consent form. In releasing the information about my participants in published material, I will allow, though in no way urge, respondents to indicate consent to being identified in published results. If confidentiality is desired then pseudonyms of their choosing will be

used in all published material, and a coding system will be put in place when transcripts and notes are being drafted.

Harm and Benefit

The focus of the research is to access and document the knowledge of women fish processing workers. One perceived harm is that this group of peoples' knowledge could be taken from them for research or academic purposes, and not for the benefit of their own community. In order to address this potential harm, I am using a feminist methodology (Reinharz 1992) to inform my methods. Therefore the participants' knowledge will be respected, and any biases and power inequalities will be worked out through an ongoing reflexive process on my part. This entails stepping back from the process and considering how the power dynamics of race, gender, class, and nationality affect not only the research environment, but also my own assumptions, expectations, and perceived outcomes of the process. This includes looking critically at what is influencing my feelings (i.e., frustration, excitement, exclusion, inclusion etc), making sure I am leaving space, actively listening, and showing and withholding authority in the appropriate places (Wilson 2005; Inhorn and Whittle 2001).

The fact that the union is recruiting could put participants in a situation where they feel pressured to participate. To limit this I have asked the union reps to distribute my contact information, so those who wish to participate can contact me personally and privately.

Another perceived harm is that the information provided about their employer may have negative consequences for them. I will try to minimize this as much as possible by allowing them to consent to direct quotes to ensure any identifying information is not present in the final work and through the use of pseudonyms in the final product and an effort will be made to publish any negative comments about the fish plant only if more than one participant has voiced them, as a way to protect participants from being identified. I will also be clear in the consent form that anonymity cannot be guaranteed.

Conflict of Interest

The conflicts of interest such as receiving an honorarium or other benefits from any funding agency or inhabiting a role such as advisor, employee, officer, director, or consultant for any funding agency, does not apply to this research project because, I do not work for a funding agency and am not getting an honorarium from a local company or from the union, as I do not inhabit the role as advisor, employee, officer, director, or consultant for any funding agency.

Inclusiveness

It should be noted that this project would have a disproportionate number of women rather than male participants, or participants of other gender/sexual identification. This is because of the gendered division of labour that exists both within the fishery and within the processing plants which results in women overwhelmingly working on shore in

processing plants, and disproportionately working on the floor, handling and processing the fish (Stainsby 1996). Currently, three quarters of fish processing workers are female in Prince Rupert, therefore in collecting fish processing workers' knowledge there will be more women than men involved in the study. With regards to age, class, ethnicity and education I intend not to exclude any fish processing workers based on age, class, ethnicity or education. I will try to make sure that all education and class levels can be included by using language and writing that is at a basic level, and having options for those who may not read English. In terms of participants who belong or self-identify with a different race or national identity, the steps that need to be taken will be addressed once I have been in contact with willing participants and am able to evaluate what the population of women's fish processing workers is. Then I will know what cultural considerations need to be made. These would include: 1) finding the right location and days (being sensitive to other cultural/national holidays etc) to perform interviews; 2) ensuring an awareness of power imbalances that might exist because I am a white, educated, woman who is not a member of the specific community; 3) having an awareness of the different ways of showing/describing knowledge that might be culturally specific; 4) in having an awareness of culture difference, not focusing on it to the extent that I make these participants feel like "others" or outsiders in their community.

Research pertaining to aboriginal communities: This research, while having the strong possibility of including aboriginal participants, is not a research project on aboriginals.

It is a project on fish processing workers knowledge, many of whom are aboriginal in Prince Rupert. While this does not require me to gain permission from the community to conduct research, it does require me to be aware of the specific cultural considerations when undertaking my research. This includes an awareness and knowledge of the different aboriginal bands that reside in the area, and their specific cultural customs, holidays and worldviews. As well as sensitivity to the way aboriginal worldviews may inform their knowledge of the resource and its management, their marginalization from decision making, and possibly play a role in the gender division of labour. To aid me in this I have made contact with two local residents who are scholars and have themselves completed research in the community, and will be available for consultation while I am doing my research. I have also read much of the scholarship that exists on the local bands.

Appendix B: Consent Form – Fish Processing Workers

TITLE: Health, Sustainability, and Knowledge: Women Fish Processing Workers in British Columbia

INVESTIGATOR: Christine Knott

SPONSORS: SafetyNet

You have been asked to take part in a research study. It is up to you to decide whether to be in the study or not. Before you decide, you need to understand what the study is for, what risks you might take and what benefits you might receive. This consent form explains the study.

The researcher will:

- **discuss the study with you**
- **answer your questions**
- **keep confidential any information which could identify you personally**
- **be available during the study to deal with problems and answer questions**

Introduction/Background:

This research is part of my Masters thesis, in the Department of Women's Studies at Memorial University. I am interested in learning more about fish processing workers, their jobs, and their thoughts on the current state of the fishing industry.

Your participation will include an interview, lasting approximately 90 minutes as well as a brief telephone call at a later date for permission to use direct quotes.

1. Purpose of study:

To record your explanations of your work, the changes to the fishing industry (such as changes to fish stocks, and processing practices), and changes to the community, based on your experience as a fish processing workers.

2. Description of the study procedures

You are being asked to participate in an audio-taped interview. Your participation is free and voluntary. If you consent to participate, what and how much you say are entirely up to you. You also have the choice to be audio-recorded or not.

During the discussion, you will be asked to talk about your work history, your work responsibilities, your personal health on the job and at home, changes in the resource or the industry that you have noticed, any concerns or thoughts on the current state of fish processing, the fish stocks, and your community.

You may refuse to answer any of the questions and are free to withdraw from the research project at any time. The list of participants will be kept confidential and your

name will not be used in any of the reports or publications produced from this study. Each interview will be assigned a number. The list linking these numbers with participants names will be stored in a separate location from the interview notes, transcripts and tapes. Access to the list will be limited to only the researcher. Once the information on the tapes has been typed up, the tapes will be stored in a locked location for five years, and then destroyed.

3. Length of time:

Our meeting today will probably last 1 to 1.5 hours, depending on how much you have to say.

5. Possible risks and discomforts:

Given that Prince Rupert and its fishing industry are small communities, complete anonymity cannot be guaranteed. You will be given the opportunity to allow or disallow any direct quotes that are to appear in the finished draft. And an effort will be made to publish any negative comments about the fish plant only if more than one participant has voiced them, as a way to protect participants from being identified.

6. Benefits:

It is not known whether this study will benefit you personally. It will provide an opportunity for you to talk about your knowledge, feelings, concerns and ideas regarding the resource, your work environment and your community.

7. Liability statement:

Signing this form gives me your consent to be in this study. It tells me that you understand the information about the research study. When you sign this form, you do not give up your legal rights. Researchers or agencies involved in this research study still have their legal and professional responsibilities.

8. Questions:

You have been given a copy of this consent form.

If you have any questions about taking part in this study, you can talk with the investigator who is in charge of the study at this institution. That person is:

Christine Knott (709) 726-5653, christie.knott@mun.ca

Signature Page

Study title: Health, Sustainability, and Knowledge: Fish Processing Workers in British Columbia

Name of principal investigator: Christine Knott

To be filled out and signed by the participant:

Please check as appropriate

I have read the consent [and information sheet].	Yes { }	No { }
I have had the opportunity to ask questions/to discuss this study.	Yes { }	No { }
I have received satisfactory answers to all of my questions.	Yes { }	No { }
2.4 I have received enough information about the study.	Yes { }	No { }
I have spoken to Christine Knott.	Yes { }	No { }
I understand that I am free to withdraw from the study	Yes { }	No { }
• at any time		
• without having to give a reason		

I understand that it is my choice to be in the study and that I may not benefit.
Yes { } No { }

I agree to take part in this study.	Yes { }	No { }
I agree to be audio recorded	Yes { }	No { }

X _____
Name of participant (**please print**)

X _____ _____
Signature of participant Date

To be signed by the researcher:

I have explained this study to the best of my ability. I invited questions and gave answers. I believe that the participant fully understands what is involved in being in the study, any potential risks of the study and that he or she has freely chosen to be in the study.

X _____
Name of investigator (**please print**)

X _____ _____
Signature of investigator Date
on behalf of Memorial University of Newfoundland

Telephone number: _____

The proposal for this research has been approved by the Interdisciplinary Committee for Ethics in Human Research at Memorial University of Newfoundland. If you have ethical concerns about the research (such as the way you have been treated or your rights as a participant), you may contact the Chairperson on the ICEHR at icehr@mun.ca or by telephone at (709) 737-8368

Appendix C: Draft Interview Schedule Fish Processing Worker (Subject to changes during the research process)

1) *Introduce myself, thank the person for making the time to meet with me.*

2) *Ethics*

Go over **consent form** and how information is stored give them the choice of oral or written consent.

REMIND THEM:

participation in the research is entirely **voluntary**

they can refuse to answer any questions

they can stop participating at any point during or after the interview.

that the interview will be assigned a random number and notes and transcripts will have names removed from them.

access to the list of names of participants and their interview number will be limited to myself

Explain that they have the choice refuse or allow the use of the digital recorder, but explain that taping the interview will help me to get more accurate and detailed information. If they allow the use of the digital recorder, they can ask to have it turned off at anytime.

If they are uncomfortable with the tape recorder, I will happily take notes instead.

Remind them that no names or other identifying information will be included in presentations, reports and publications from the research but they should be aware that complete anonymity cannot be guaranteed because of the small size of the community, and therefore it is possible someone may guess their identity.

Signatures:

Show them where to sign in appropriate places.

Explain that **their signature** means that they understand what the research is about, that their participation is voluntary and that they consent to being interviewed.

And **my signature** means that I commit to following the agreements on privacy, information storage and on communication described in the consent forms.

Let them know they are free to ask me any questions they have during the interview

INTRO:

Thank you for being here, I am going to start by asking you some basic questions about how long you have been processing fish, where you have worked and what your work entails. Then I will ask more detailed questions about the fish you process, about your work and your health. I will get you to fill in two maps, one where you can draw a basic layout of your plant and where you work, and another of where you feel pain or discomfort, or have or had an injury (if any) on your body. I will conclude with more specific information such as your age.

Do you have any questions before we start?

WORK HISTORY

1) Can you tell me about your job(s) in the fish plant? What is a typical day for you?

PROMPTS:

currently employed? For how long? How old when started?

other fish plants ? If yes, where, and for how long?

typical day of work?

Responsibilities?

Breaks?

Any other jobs performed?

Hours a day?

similar or different at your other places of work ? If different how?

training process? What was that experience like?

did you have help, on your own? Hard, easy?

What do you enjoy the most about your work? Why?, the least? Why? Any changes to this over the years?

Technological explanations

Work uncertainty / seasonality – (OHS issues of this)

Satisfaction with income? Average wage? Other jobs to get by? Number of people working in the household to get by?

encourage friends or family to work here? Why/Why not?

MAP:

Can you fill in this paper and show me the layout of the plant you work in now. Could you draw in where people worked, whether they were male or female, and what their jobs were, from what you can recall when you first started, in the middle of your career, and currently.

2) Is there anything else about your work experience that you would like to tell me about? (ie feel is important)

BACKGROUND KNOWLEDGE

1) Can you tell me a bit about the fish and seafood that you process?

PROMPTS:

types of seafood that you process? That your plant processes?
any changes to the type of fish/seafood that you process in this plant? If so, what? When?

to the species (size, quality, texture, abundance)? If yes, what?
to your hours within the season, or the season itself
any affects changes have had on your work?
How do you know this?

2) What do you think of the current state of the BC fishery?

the regulations and management of the fishery?

Have regulations changed in the industry? What triggered these changes and what have been the consequences of those changes for them?

3) Is there anything else you would like to tell me about the current state of the fishery?

HEALTH AND SAFETY

I would like to ask you some questions regarding your health and safety at work. To help with this I have a picture . **FIRST** I would like you to draw and label areas where you have experienced pain or an injury on the job.

MAP:

Can you draw on the map any places where you have experienced an injury, or illness? Can you label any places on the map where you experience pain or discomfort?

Could you draw on the map where you experience any discomfort away from work, and/or during the off the season? Do you know about when you first started to notice this discomfort?

1) I am interested in your experience with health and safety at your work. Can you tell me about the health and safety at your work?

Prompts:

Do you consider you workplace to be safe? Why or why not?
processes or procedure in place at work if you experience an injury? If yes, what is it?
Is there a H&S committee? Have you ever sat on it? Are there inspectors?

2) Can you tell me about any areas on your body that bother you at work or that have been injured while at work?

Did you seek treatment? Or compensation? Why or why not?
any time off of work because of it? Why or why not?
affect of it outside of work? where and how (at home, in the community)
any idea what may have triggered this discomfort? Has it changed over time in any way? (if yes, how?)
Can you describe what it feels like currently?
Taking any medication or other to treat it yourself?
Changes in work responsibilities?
Changes from start of season to the end?
Work uncertainty – stress, what does that mean for you?

3) Is there anything else about your health at work or at home that you would like to tell me about?

COMMUNITY

1) What role does the plant play in the community?

The effect of decrease in numbers? Effect on community, ie loss of hours?

2) Have you noticed any changes to your (this) community while you have lived here? If yes , please describe these changes? (size, employment opportunities, income, crime rates, services, moral)

When? How have they unfolded, affected the community as a place to live, raise children, grow old in, be sick in, work in, go to school in?

3) What in your opinion has contributed to the changes you have described?

4) Is there anything else about your community that you think is important to discuss or mention?

BACKGROUND INFO

Age?

Education? (highschool, collage, trade, university)

Do you identify with any ethnicity or race?

Do you work elsewhere or at any other times during the year?

Is there any beliefs and/or concerns you have about overall health of the resource, of yourself, and your community before, during (and possibly after) working in the processing plants that we have not talked about and you would like to mention.

SNOWBALLING: any other workers who you recommend I talk to? Doctors, nurses in the community?

Thank you!

Appendix D: Consent Form – Health Professional

TITLE: Health, Sustainability, and Knowledge: Fish Processing Workers in British Columbia

INVESTIGATOR: Christine Knott

SPONSORS: SafetyNet

You have been asked to take part in a research study. It is up to you to decide whether to be in the study or not. Before you decide, you need to understand what the study is for, what risks you might take and what benefits you might receive. This consent form explains the study.

The researcher will:

- **discuss the study with you**
- **answer your questions**
- **keep confidential any information which could identify you personally**
- **be available during the study to deal with problems and answer questions**

Introduction/Background:

This research is part of my Masters thesis, in the Department of Women's Studies at Memorial University. I am interested in learning more about fish processing workers, their jobs, and their thoughts on the current state of the fishing industry.

Your participation will include an interview, lasting approximately 60 minutes.

4. Purpose of study:

To record your explanations of your work, observations of the health and safety of fish processing and changes to the community, based on your experience.

5. Description of the study procedures

You are being asked to participate in an audio-taped interview. Your participation is free and voluntary. If you consent to participate, what and how much you say are entirely up to you. You also have the choice to be audio-recorded or not.

During the discussion, you will be asked to talk about, your experience with the personal health on the job and at home of fish processing workers, changes in the resource or the industry that you have noticed, any concerns or thoughts on the current state of fish processing, the fish stocks, and your community.

You may refuse to answer any of the questions and are free to withdraw from the research project at any time. The list of participants will be kept confidential and your

name will not be used in any of the reports or publications produced from this study. Each interview will be assigned a number. The list linking these numbers with participants names will be stored in a separate location from the interview notes, transcripts and tapes. Access to the list will be limited to only the researcher. Once the information on the tapes has been typed up, the tapes will be stored in a locked location for five years, and then destroyed.

6. Length of time:

Our meeting today will probably last 1 to 1.5 hours, depending on how much you have to say.

5. Possible risks and discomforts:

Given that Prince Rupert and its fishing industry are small communities, complete anonymity cannot be guaranteed. You will be given the opportunity to allow or disallow any direct quotes that are to appear in the finished draft.

6. Benefits:

It is not known whether this study will benefit you personally. It will provide an opportunity for you to talk about your knowledge, feelings, concerns and ideas regarding the resource, your work environment and your community.

7. Liability statement:

Signing this form gives me your consent to be in this study. It tells me that you understand the information about the research study. When you sign this form, you do not give up your legal rights. Researchers or agencies involved in this research study still have their legal and professional responsibilities.

8. Questions:

You have been given a copy of this consent form.

If you have any questions about taking part in this study, you can talk with the investigator who is in charge of the study at this institution. That person is: Christine Knott (709) 726-5653, christine.knott@mun.ca

The proposal for this research has been approved by the Interdisciplinary Committee for Ethics in Human Research at Memorial University of Newfoundland. If you have ethical concerns about the research (such as the way you have been treated or your rights as a participant), you may contact the Chairperson on the ICEHR at icehr@mun.ca or by telephone at (709) 737-8368

Appendix E: Telephone Script

Hello, my name is Christine Knott. I am a Master's student at Memorial University in Newfoundland, and am currently doing research on the impacts (if any) of industry restructuring on fish processing workers personal as well as occupational health, and its connections to resource health.

I am contacting you today to see if you would be willing to participate in a face to face interview about the health and occupational health of fish processing workers. If you are interested in participating in an interview I would like to ask about your observations of changes (if any) to fish processing workers OHS, the industry, the resource, and the community. The interview will take about an hour to an hour and a half to complete. Participation is free and voluntary and should you agree to participate, you are free to refuse to answer any questions and to stop participating in the project at any point.

Appendix F: Draft Interview Schedule Health Professional (Subject to changes during the research process)

1) Introduce myself, thank the person for making the time to meet with me.

2) Ethics

Go over **consent form** and how information is stored give them the choice of oral or written consent.

REMIND THEM:

participation in the research is entirely **voluntary**

they can refuse to answer any questions they can stop participating at any point during or after the interview.

that the interview will be assigned a random number and notes and transcripts will have names removed from them.

access to the list of names of participants and their interview number will be limited to myself

Explain that they have the choice refuse or allow the use of the digital recorder, but explain that taping the interview will help me to get more accurate and detailed information. If they allow the use of the digital recorder, they can ask to have it turned off at anytime.

If they are uncomfortable with the tape recorder, I will happily take notes instead.

Remind them that no names or other identifying information will be included in presentations, reports and publications from the research but they should be aware that complete anonymity cannot be guaranteed because of the small size of the community, and therefore it is possible someone may guess their identity.

Signitures:

Show them where to sign in appropriate places.

Explain that **their signature** means that they understand what the research is about, that their participation is voluntary and that they consent to being interviewed.

And **my signature** means that I commit to following the agreements on privacy, information storage and on communication described in the consent forms.

Let them know they are free to ask me any questions they have during the interview.

INTRO:

Thank you for being here, I am going to start by asking you some basic questions about how long you have been working in this community, where you have worked and what your work entails. Then I will ask more detailed questions about your knowledge of the fish processing industry in this community and the health of fish processing workers. I am also interested in any thoughts or observations you might want to make related to larger changes in the community and their relevance for the health of the community, people in the community, health care and occupational health services, etc. I will conclude with more specific information such as your age.

Do you have any questions before we start?

WORK HISTORY

1) Can you tell me a bit about your work, and your experience with fish processing worker?

PROMPS: where you are currently employed? For how long?

HEALTH AND SAFETY

1) Can you talk a bit about the injuries and health ailments that you have treated in fish processing workers ?

PROMPS:

If no, why do you think this is?

If yes, what? How many? How Common?

What treatment? Or compensation is given?

any illness (long or short term) that were caused, occurred or was aggravated at the fish plant? If yes, what? How many? How Common?

What treatment? Or compensation given? (If any) – why or why not?

2) Is there anything about your work experience with fish processing workers that you would like to tell me about? (ie feel is important)

COMMUNITY

1) Have you noticed any changes to your (this) community while you have lived here? If yes , please describe these changes? (size, employment opportunities, income, crime rates, services, moral)

When? How have they unfolded, affected the community as a place to live, raise children, grow old in, be sick in, work in, go to school in?

2) What in your opinion has contributed to the changes you have described?

3) Is there anything else about your community that you think is important to discuss or mention?

BACKGROUND INFO

Age?

Education? (highschool, collage, trade, university)

Do you identify with any ethnicity or race?

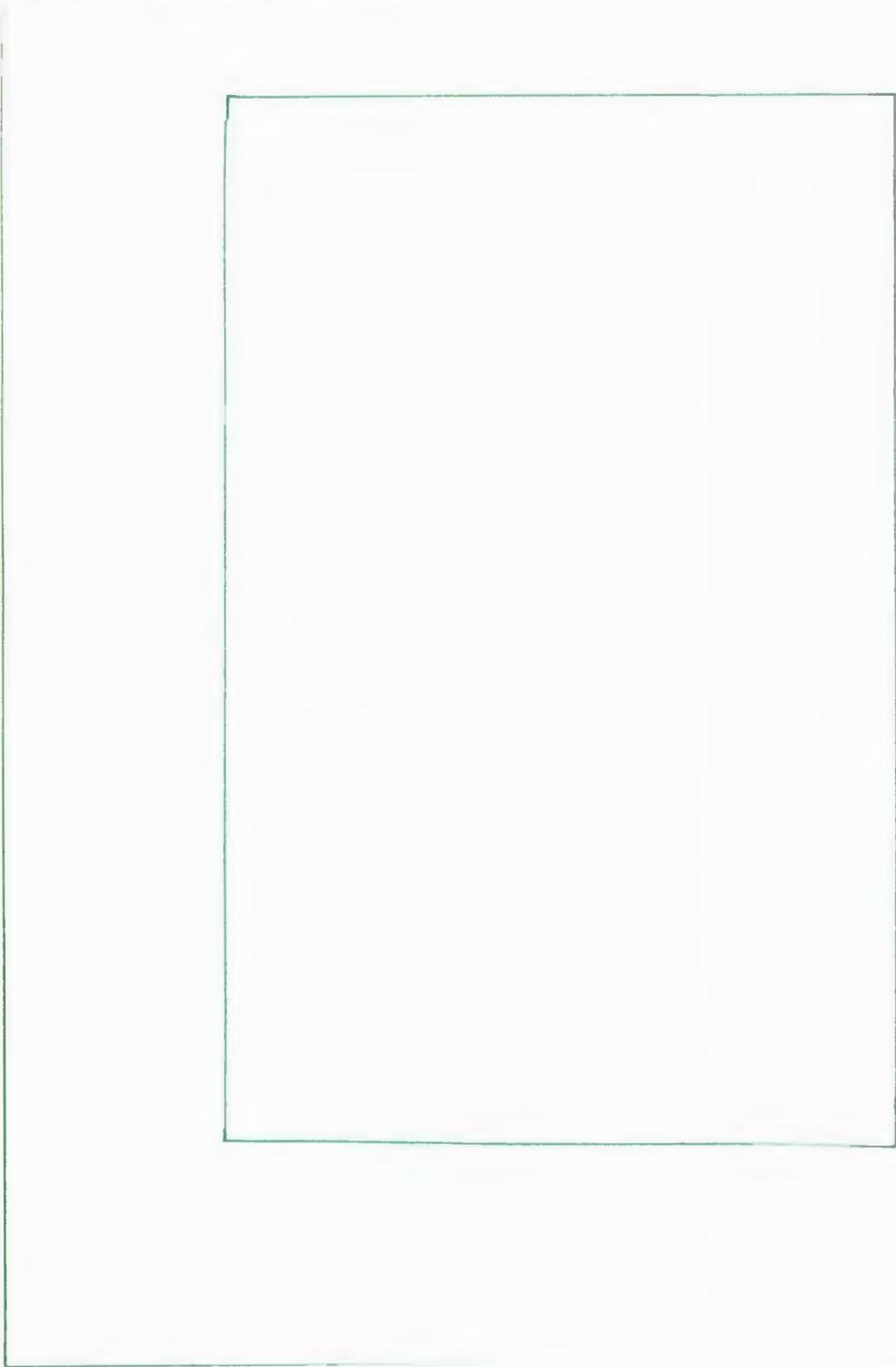
Income? <5000, 5-9,999, 10,000-14,999, 15,000-19,999, 20,000-24,999, 25,000-29,999, >30,000.

Do you work elsewhere or at any other times during the year?

Is there any beliefs and/or concerns you have about overall health of the resource, of yourself, and your community before, during (and possibly after) working in the processing plants that we have not talked about and you would like to mention.

Thank you!

Appendix G: Plant Layout Map



PLANT LAYOUT MAP

