THE RIVER MULTIPLE: EXPLORING PLACE, IDENTITY AND RESOURCE POLITICS ON THE GANDER RIVER, NEWFOUNDLAND

by

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“Ideas do not constitute the core of her sense of self. Her identity is rather a function of her actual relations with a particular place, a particular part of the psychophysical terrain of earth, and is thus rooted in reality. She is not a spectator of, but rather participant in, the unfolding of the world”.

(Mathews, 2005, p. 63)

“Care is a process: it does not have clear boundaries. It is open-ended.”

(Mol, 2008a, p.20-21)

ABSTRACT

Resources, identity and place are important concepts to explore for understanding questions around resource politics between Aboriginal and non-Aboriginal people and groups. On the Gander River, central Newfoundland, questions of how Mi'kmaw and non-Aboriginal people identify with this place and how they engage with each other and the resources therein are critical in addressing local governance and a larger set resource politics. With its focus on place and community-based and 'ground-up' participatory development, the place-based development model offers a great potential for communities to thoroughly engage with, and lead, in local development and governance processes. This analysis demonstrates a number of place-based development strategies in the Gander River region, which have helped a culturally diverse set of residents pursue local development and tackle common resource governance and rural development challenges. Within the geographic literature on place, it is argued that identity is highly intertwined with socio-spatial relations, and yet, in the vast majority of place-based development and natural resource geography literatures, such relations are not extended to the bio-physical landscape. Rarely do questions of materiality – conceived of as hybrid and heterogeneous relations existing in embodied forms – enter into discussions of resource governance and development. In adopting a critical, post-colonial approach to fieldwork – through open and reflexive interview techniques, participant observation and following local practices as they emerged on the river – in addition to drawing from science and technology studies literature, it became evident that the different practices on the river yield different kinds of places and resources. In constructing an account of the practices of Mi'kmaw and non-Aboriginal river users, this research demonstrates that the different practices enact ontologically distinct Atlantic salmon on the Gander River and these differences cannot be conceived in strictly rationalist or 'common sense' realist terms. Articulating these practices is critical in bringing these alternative places and resources into better view. Moreover, the existence of these multiple reals has deep implications on the appropriateness of typically technocratic and rationalist resource governance and development approaches.

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Table of Contents

List of Tables and Figures

List of Abbreviations

ABCD	Asset-based community development
AANDC	Aboriginal Affairs and Northern Development Canada
ACOA	Atlantic Canada Opportunities Agency
AFS	Aboriginal Fisheries Strategy
AFG	Aboriginal Fishery Guardian
ASF	Atlantic Salmon Federation
BOD	Biochemical oxygen demand
CASEC	Cooperative Agreement on Salmonid Enhancement and Conservation
CED	Community economic development
CNS	Centre for Newfoundland Studies
CWM	Community Watershed Management
DFO	Department of Fisheries and Oceans/Fisheries and Oceans Canada
DNR	Department of Natural Resources
DOEC	Department of Environment and Conservation
FCM	Federation of Canadian Municipalities
FNI	Federation of Newfoundland Indians
GBIBC	Gander Bay Indian Band Council
GIAA	Gander International Airport Authority
GMFN	Glenwood Mi'kmaq First Nation
GRMA	Gander River Management Association
IBRD	Innovation Business and Rural Development
ICEHR	Interdisciplinary Committee on Ethics in Human Research

ICSP	Integrated Community Sustainability Plan
LED	Local economic development
MAMKA	Mi’kmaq Alsumk Mowimsikik Koqoey Association
MIGA	Municipal and Intergovernmental Affairs
MRIF	Municipal Rural Infrastructure Fund
NCC	NunatuKavut Community Council
NLWF	Newfoundland and Labrador Wildlife Federation
PANL	Provincial Archives of Newfoundland and Labrador
PEGNL	Professional Engineers and Geoscientists Newfoundland and Labrador
RCAP	Royal Commission on Aboriginal Peoples
SAC	Salmonid Advisory Council
SAEN	Salmonid Association of Eastern Newfoundland
SCNL	Salmonid Council of Newfoundland and Labrador
STS	Science and technology studies
TCPS2	Tri-council Policy Statement
TSS	Total suspended solids

List of Appendices

Chapter 1 Introduction

1.1 Research problem

In the spring of 1995, Tony John and his cousin Jim John, both members of Miawpukek First Nation, staged a protest by throwing a fishing net across the Gander River in Newfoundland, in direct violation of Canadian legislation for a Schedule 1 river (DFO, 2014), in order to argue for their right to participate in the Aboriginal Food Fishery. The provincial courts rejected this claim citing of a lack of evidence of Mi'kmaw pre-European-contact use of the Gander River. [1] Additionally, it was determined at this time that the federal government was not at fault for denying them their Aboriginal resource rights[2] – in this case, access to salmon – because these rights were not recognized by Newfoundland prior to confederation with Canada (Lawrence, 2009). Furthermore, those Mi'kmaq peoples of Newfoundland not belonging to the Miawpukek First Nation (whom were designated Aboriginal status in 1987) were only acknowledged as legal Indians under the *Indian Act* (1987) by the Canadian federal government in September 2011. The denial of legal recognition has been attributed to their lack of "Indianness" as perceived by the Canadian government and society at large, and as a result it has been argued that their community and territorial bonds have significantly deteriorated (Lawrence, 2009). However, what the John's demonstrated in tossing the net across the river is a kind of practice-based claim directly related to resources, land, and identity connected with this land – regardless of their legal status (Povinelli, 2002). This seemingly simple act is deeply embedded with meaning, particularly the importance of salmon to the Mi'kmaw people, who have a long history of

[1] The term Mi'kmaq is used when referring to "The Family" or nation, and the form Mi'kmaw is used as the singular of Mi'kmaq and it is used as an adjective when it precedes a noun (e.g. Mi'kmaw people, Mi'kmaw treaties, Mi'kmaw guide, etc.) (Mi'kmaw Resource Guide, n.d.)

[2] Granted on the basis of being a status Aboriginal, as defined by the federal *Indian Act*

hunting, trapping and fishing on the Gander River. Given the larger context of Aboriginal – non-Aboriginal relations and the contested nature of resources on the Gander River, examining issues of identity, resources and place is critical in addressing the unfolding resource politics therein. Further, understanding the role of resource-based practices in defining these resource politics on the Gander River is the key problem this thesis will address.

The Gander River extends over 156 kilometres running from its upper reaches towards the south coast of Newfoundland into the mouth of Gander Bay in central Newfoundland (Cuff, 1984). The main river stem, which extends from Gander Lake to Gander Bay (hereafter I will refer to this as the Gander River), and its connecting tributaries have been used for the past two centuries by the Mi'kmaq, who largely subsisted on fish and game, berries, herbs and other elements of the forest and bog-lands in the adjacent area.[3] European settlement in this region was limited until the mid-19th century, and the first recorded date of Mi'kmaw settlement in Gander Bay was in 1822, approximately the time in which the Miawpukek[4] settled permanently on the southern coast of Newfoundland (Anger, 1983; Martijn, 2000). It should be noted that the Beothuk First Nations people also hunted and fished on the Gander River, predominately prior to settlement of the Europeans or Mi'kmaq in this region (Cuff, 1984).[5] Historically, the main stem and tributaries had been extensively used as a transportation network, effectively connecting

[3] There are many accounts by those writing expedition memoirs, such as Cormack in 1822, who was lead by a Mi'kmaq guide. Millais (1907) chronicles his exploration of the Gander River and the surrounding region with his guide – who provided accounts of the Mi'kmaq hunting and fishing in the area. Anger (1983) provides a more narrow range of dates in which the Mi'kmaq settled in Gander Bay and Glenwood.

[4] Before this time, Miawpukek was one of many semi-permanent camping sites, occupied seasonally by the Mi'kmaw people who were predominantly nomadic at that period. The Mi'kmaq migrated throughout Newfoundland, Labrador, Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Maine (Martijn, 2000).

[5] "The works" is a small section of the river where the Beothuk developed a rock channel which guided salmon upstream where they were more easily caught (Saunders, 1986). While the demise of Beothuk as a culture, and the Beothuk people themselves, is widely contested (Janzen, 2014), Marshall (1996) suggests that the Beothuk and Mi'kmaw hunting practices were divergent enough that they would have rarely crossed paths with one another.

Miawpukek and Gander Bay through the island interior. The grandparents of Tony John and Jim John travelled from Miawpukek and eventually settled on Salmon Brook, just outside of Glenwood, via the headwaters of the Gander River system in the late 19th century.

There is an extensive history of guiding on the rivers in Notre Dame Bay, which from the earliest recorded dates often involved Mi'kmaw guides assisting Europeans exploring the interior portions of the island (Millais, 1907). Millais (1907) describes the upper reaches of the river system, those extending south of Gander Lake and heading further inland as treacherous and thus, difficult to traverse. From the late 1930s and 1940s, the Gander River became internationally recognized as a major destination for salmon angling and large game hunting. The subsequent development on the river included a dramatic increase of built infrastructure on the banks of the river where fishing camps were built to accommodate the sport-fishing and hunting guests. Prior to this tourist 'boom' only a few cabins were built along the river and deeper in the woods (Saunders, 1986). These camps and fishing lodges became prominent features on the more accessible portions of the river, a few of which are still in operation today (Saunders, 1986).

Development and resource governance practices are shifting on the Gander River. Throughout the 20th century the forestry industry was also a major employer of both Aboriginal and non-Aboriginal men living in the area. However, because of the development of more 'efficient' technologies in forest harvesting over the past four decades, there is much less employment in the forestry industry than there once was, and during this period local resource-based work shifted to mining and larger-scale timber harvests for the pulp and paper industry. There has also been a decrease in the number of guides and staff working at fishing and hunting lodges, as fewer tourists are engaging in these activities. Despite this, the economic benefits derived from

the forestry and recreational fishing and hunting activities on the river have contributed to local economic development (LED), including the development of tourism related infrastructure in the surrounding communities.[6] Development in the region has not, however, been without its own set of challenges. Dependence on resource-based industries is nothing new for rural communities in Newfoundland and Labrador, and in the context of Glenwood, Appleton (at the head of the Gander River) and Gander Bay there is an added complexity because both Mi'kmaq and non-Aboriginal people identify these areas as their home. Historically, river governance and development has often been left primarily to provincial and federal governing bodies, involving centralized control, and often resulting in management and development practices that do not reflect the interests and knowledge of adjacent communities. However, there are instances where greater local participation in these processes is occurring on the Gander River. Given place-based development's emphasis local participation and the transformation of community-derived assets for social, environmental and economic benefit, it is an obvious point to begin exploring the relationship between people and resources on the river.

The concepts of place and identity have been mobilized by scholars in Aboriginal studies, largely in reference to Indigenous peoples' struggles over rights to territory and resources, as well as social and cultural integrity (e.g. Howitt, 2001; Agius *et al.*, 2007; Johnson *et al.*, 2007; Lawrence, 2009). In Canada, the *Indian Act* legally regulates the territorial and resource rights of Aboriginal people, including the very definition of being Aboriginal, through the designation of Aboriginal status (i.e. registered Aboriginal person under the *Indian Act*). The historic impacts of the *Indian Act*, the reserve system and restrictions on Aboriginal peoples' access to the land in

[6] Here, economic benefits are considered broadly, including subsistence practices of woodcutting in addition to the monetary income derived from participation in the forestry industry.

Canada are well documented (Elias, 1995; RCAP, 1996). Despite the oppressive constrictions legislated through the *Indian Act* and the reserve system, these mechanisms[7] have provided some Aboriginal people with a land base, however limited, which allowed them to maintain at least some semblance of cultural and political cohesion (Lawrence, 2009). For the majority of status Aboriginal people, the *Indian Act*, has served as a means of political unity and strength for Aboriginal communities in Canadian society regardless of its obviously discriminatory racist (and sexist) lineage and ongoing issues related to identity (e.g. Cardinal, 1969). The Ktaqamkukewaq Mi'kmaq[8] of Newfoundland are in a unique situation because the majority of these peoples were only recently recognized under the *Indian Act* as a pan-Newfoundland, *landless* band, the Qalipu Mi'kmaq First Nation. Thus, for the vast majority of Ktaqamkukewaq Mi'kmaq, a place-based sense of cohesion through federally-granted land has not been realized. [9]

In a report for Newfoundland and Labrador's Royal Commission on Renewing and Strengthening Our Place in Canada, Hanrahan (2003) states the losses that the Ktaqamkukewaq Mi'kmaq have suffered as a result of not being included in the Terms of Union with Canada are immeasurable. It is not my intention to debate this critical point, nor is it to undermine the tireless work of the Qalipu Mi'kmaq First Nation in their recent attainment of Aboriginal status. The damage caused by a long standing denial of status, and subsequent victory in achieving status are topics that are largely outside the scope of this research. Rather, this research explores the relationships and practices that currently exist between Mi'kmaq and non-Aboriginal people

[7] And more specifically through the arduous negotiation of treaties and land claim settlements, dating back to 1763, or 1975, in the case of 'modern' treaties – also known as comprehensive land claim agreements (Usher, 2003)

[8] The Mi'kmaq of insular Newfoundland and Labrador including the Miawpukek and Qalipu First Nation Bands

[9] Particularly after Newfoundland joined Canada in 1949, wherein the unofficial policy in dealing with the Mi'kmaq was integration with non-Aboriginal society (Lawrence, 2009)

and the Gander River watershed, *despite* the lack of legal recognition -and associated resource rights- of the Mi'kmaw people in this region. The Gander River watershed in this instance is a critical *contact zone* (Pratt, 1991) in exploring the relationship between Aboriginal and non-Aboriginal people and resources. Pratt (1991) describes contact zones as "social spaces where cultures meet, clash, and grapple with each other, often in contexts of highly asymmetrical relations of power, such as colonialism, slavery, or their aftermaths as they are lived out in many parts of the world today" (p. 34).The *contact zone* is a relevant concept in discussing the communities on the Gander River because the relations formed between residents of Mi'kmaw and non-Aboriginal descent, as a result of living together in the area for over four generations, require acknowledgement of the colonial past in understanding the seemingly 'integrated' nature of communities present today.

1.2 Research purpose

The purpose of this research is to contribute to a better understanding of the role of Mi'kmaw communities in Newfoundland and Labrador in environmental governance and community-based development including their interactions and collaborations with non-Aboriginal persons and government and non-government organizations. The site for this research is the Gander River watershed catchment area, between the communities of Appleton, Glenwood and Gander Bay, which is home to the Qalipu, off-reserve Miawpukek and non-Aboriginal peoples. Territory and identity are crucial to understanding these relations. The Qalipu Mi'kmaq First Nation Band's status as a landless band poses a challenge to questions of resource governance on the Gander River because despite being their home, they do not have federally granted land. To understand the challenges and opportunities for resource governance and social and economic development in this context, it is important to explore how all members of these communities – Mi'kmaw and

non-Aboriginal – negotiate their interactions with the environment across political and spatial boundaries.

This project will address the following research questions: in what ways do various policies, and development and management practices affect 'landless' Aboriginal- and non-Aboriginal communities' ability to govern resources? How are 'river-based' identities and practices expressed by Aboriginal and non-Aboriginal residents of the communities in the Gander River watershed? Finally, how are these collective identities mobilized in the context of resource politics? This will involve an investigation of three subthemes:

(i) The degree to which Mi'kmaw peoples and non-Aboriginal people, government and non-government organizations pursue place-based development, specifically participatory, integrated and asset-based development strategies;

(ii) The challenges related to place-based development and local resource governance facing these communities on the Gander River watershed, and,

(iii) The practices that enact alternative ways of relating to the resources within the region.

The cultural practices and identities expressed and maintained by the Mi'kmaq living on the Gander River are undeniably rooted in this place. These practices draw into question the designations of 'landless' or otherwise 'off-reserve'[10] Aboriginal people, which are attributed to the Qalipu and Miawpukek living on the Gander River, respectively. Moreover, these practices and identities – as expressions of Aboriginality – are intertwined with the politics and relationships developed alongside non-Aboriginal people on the Gander River, which have in

[10] Also the distinctions of "status" and "non-status".

turn influenced the ways in which place-based development and resource governance proceed in the region. This research is significant because despite a long standing history of living together in the same communities—in a *contact zone* – questions around Aboriginal and non-Aboriginal relations in local resource politics, including the identities around these resources, have largely gone unexamined in the Canadian context. This is of particular relevance too because, as argued by Centellas (2010), regional identities do not correspond neatly to an indigenous- non-indigenous dichotomy. In the case in the Gander River region, the line between Mi'kmaw and non-Aboriginal communities has become blurred after decades of living together on the river and yet, as the John's protest fishing illustrated, there are important places and instances where difference is articulated.

1.3 Approach to the study

In June 2011, after some preliminary discussions with the chiefs of the Glenwood Mi'kmaq First Nation (GMFN) and the Gander Bay Indian Band Council (GBIBC), I arrived in Glenwood to start working on my Master's research project on the Gander River. I then talked with people who live near the river – people who have and/or continue to fish and travel on it regularly and people who have taken part in some form of official river management (which are *not* mutually exclusive categories). Sometimes I had an audio recorder running and other times I did not – likewise in formal recorded interviews I had specific questions for interviews, but I acquired a great deal of information from informal conversations and by 'being around' in the communities. Regardless the degree of formality in my field encounters, my presence in the region has also influenced the emerging realities in which I investigate here.

The basic approach taken in this research was case-study analysis through the use of ethnographic approaches and techniques. The central theme is the relationship between the Mi'kmaq and non-Aboriginal people in the Gander River watershed and the ways in which they engage with and make decisions around the resource base. The thesis presents two contrasting theoretical moves. First, I analyze the literature on place-based development as a means of exploring the local environmental, political, economic and social context in which development and resource governance decisions play out in the watershed. Within this discussion I also point to the role of place and place-identity as concepts and to their use within place-based development. While the place-based development approach provides a welcome alternative to standard sectoral-based development approaches, it nonetheless faces challenges. In particular, the place-based development framework faces difficulty in recognizing and dealing with resource politics where the diversity (between and amongst various actors and resources) is based on ontological differences. Second, I have drawn from the field of new resource geography and science and technology studies (STS), particularly praxiography as a means to investigate these challenges through examining what constitutes a resource and the ways in which resources (and places) are constituted. This second part of the thesis emerged as a part of an intellectual journey that took place over the course of my field work on the Gander River. During this time, I began to see that the differences expressed on the river could be centred around a seemingly straightforward question about what is the Gander River? It became increasingly clear, that key differences expressed about the river, and resources therein, emerged from the various practices of those engaged on the river, not merely differences of understanding and perspective. Finally, in exploring these theoretical lines of inquiry, the methods I deployed throughout the data collection and analysis are qualitative and reflexive in nature.

Given this intellectual journey, a critical component of this project, which came to the fore over the course of my fieldwork, is the question: to what extent can place-based development and resource governance – as expressed in the literature – get to the heart of differences expressed on the river? Is it enough to suggest, as the place-based development framework does, that the differences on the river are based around questions of whether the river is an economically, culturally and/or environmentally valuable entity for those communities on the river? As suggested, in this analysis I argue that differences on the river are made visible through the practices that people deploy when engaging on the river. As analysis of field results continued, it became evident that these differences were significant enough to challenge the assumption that interview participants and others were referring to the same place when addressing the river. Thus, a key question posed in this research, in conjunction with the aforementioned research questions, is: what is the Gander River? This involves moving beyond simply asking questions of what the river means to residents and various other river users, or interpreting why the river is important, rather, it requires attending to the ways in which the Gander River is enacted through practices. Analysis of the practices on the river reveals the river as multiple, that is, there are alternative Gander River realities. By extension, the particular analysis offered here reveals multiple Atlantic salmon realities, each of which is brought into being through a diverse network of practices, relations and technologies. Emerging from the recognition of multiple Atlantic salmon is *not* a question of which salmon is closest to the truth, but rather, which salmon is *done well*. Which of the salmon are given good care?

The rest of the thesis is divided into four main parts: first, an analysis of the methodological and theoretical approaches and the methods utilized in this research; second, an empirical chapter investigating the role of place-based development in the context of the resource politics on the

Gander River; third, an empirical chapter exploring three enactments of salmon, derived from the diverse practices that have taken place and continue to occur on the Gander River and; fourth, a concluding chapter.

Chapter 2 Doing research: theory, methodology and methods

"The most important rule of method – to allow yourself to be surprised"...

(Mol, 2008a, p. 117)

... "pursuing this goal is likely to entail a letting go, a conscious attempt to relinquish control over the research process".

(Hanson, 1997, p.125)

2.1 Introduction

Method is, by definition, a process, through which we are wielding and (co)constructing not only knowledges, but realities (Haraway, 1991; Law, 2004; Blaser, 2010). These realities are multiple, intersecting and on the move (Mol, 2008a). As such, I cannot describe my methodology as a process that has proceeded in a linear-step fashion.[11] Likewise, I have been immersed in the production of this research and thus, reflecting on my position throughout this project must extend to the analysis of the results themselves. The research here has not been explicitly auto-ethnographic, but draws from some of the principles of such an approach. As discussed by Collins (2010), the "ethnographic self" is certainly a resource, as far as it has helped me navigate my fieldwork experiences and continues to do so. In this chapter I attempt to demonstrate how I

[11] Indeed, writing this text has proven invaluable to my understanding of method in such a way that my methodological influences challenge my ability to write this text as a totalizing meta-narrative of my research. As such, a significant caveat is in order: the narrative I tell in this text does not preclude other interpretations of the Gander River and the residents in the watershed. To be fair, I cannot claim to represent these people's lives, or 'the place' itself, as there is no singular point of reference from which I could stand and do so. Not only is this text dialogical in its intention, it is also partial. The threads, or storylines, have been told from my point of view, but their recitation has been made possible with the participation of the people and places connected through the Gander River.

have moved and have been moved in the research process, from a discussion of the theoretical and methodological frameworks influencing this work, to the methods of data collection I made in 'the field', and an analysis of how these processes helped guide my investigation and discussion of the empirical data.

2.2 Theoretical and methodological frameworks

The methodological considerations that informed my research process transformed my theoretical and practical understanding of place, resources and identity and how each of these concepts fit into 'development'. In this chapter, I outline how I navigated through the research process and discuss the implications of this approach for 'place-based development' as it relates to the Gander River and surrounding environs.

2.2.1 Theoretical frameworks

This project has been informed by two of the theoretical approaches within human geography. These are: place-based development and critical (or new) resource geographies. It should be noted, that each of these areas within geography are diverse, so here I shall elaborate briefly on these approaches and where they fit in within my study of the Gander River. Finally, I discuss the STS literature on praxiography as a means to further the performativity demonstrated on the river.

Place-based development, in many ways, emerged as a reaction to more conventional forms of development, which have been pronounced by an almost universal application of those policies, programs and practices deemed most appropriate by western science and political economic agendas. In this framing, planning is controlled by planning experts, development institutions,

and nation-states which govern from the 'top-down' (Escobar, 1995; Coe *et al*., 2007) often focusing on a single sector, and usually on large-scale industrial projects (Markey *et al.*, 2008), while local contexts, and their subsequent historical contingencies and socio-cultural, political, and environmental specificities are largely disregarded (Escobar, 1995; Escobar, 2008). Place-based strategies adopt a territorial approach to planning and development, which in turn leads to the integration of contextual 'endowments', such as particular environmental, economic, social, and cultural characteristics of a locality (Amdam, 2002; Markey *et al.*, 2008). These endowments are frequently referred to as 'assets', and can be used in locally driven development efforts commonly associated with community economic development (CED) models (Roseland, 2000; Markey *et al.,* 2005; Markey *et al.,* 2008, Reimer & Markey, 2008).

The movement towards place-based development can be attributed to a number of factors, including the drastic restructuring of the economic, political and social fabric of urban and rural communities, coinciding with a more integrative turn in economic geography (McKnight, 1995; Markey *et al.*, 2008; Markey, 2010) as well as the empirical imperative in understanding place as a key factor influencing individual and social behaviour and modes of living (Halseth, *et al.*, 2010). There has been a parallel shift within community development that turns away from the "needs-based" or deficiency model of development, towards development based around the assets or strengths that are suggested to be an integral part of these places (McKnight, 1995; O'Looney, 1996). Following from this framework, I have sought to explore what kinds of understandings of place are being deployed within development as well as the role of local 'assets' within community-based development strategies.

A more nuanced understanding of place[12] (e.g. Massey, 1994; Massey, 2004) and place and regional identity (Allen *et al.*, 1998; Paasi, 2003; Paasi 2004) is critical in exploring the ways in which these concepts are mobilized in place-based development. As a holistic framework, the place-based development literature insists on the importance of those activities traditionally thought of as external to 'the economy', for example, participation in self-provisioning activities as a means of promoting social wellbeing and protection of the environment. Social and environmental 'goods' are key components of place-based development (Table 2.1). In a departure from traditional regional economic development frameworks, it is important to consider the role of *alternative economies* (e.g. Gibson-Graham, 2008; Miller, 2011) in place-based development and the degree to which these are present on the Gander River. Through critically investigating how people identify and engage with the Gander River, both historically and currently, the performances of *alternative economies* in this place may be revealed. These economies are more inclusive than traditional understanding of "the economy", and require more dynamic and reflexive understandings of places themselves (Gibson-Graham, 2006). Further, given that place is also a key concept underlying environmental and resource governance (Markey *et al.*, 2008), this research makes an important contribution to the place-based development literature by investigating the role of place-based approaches in resource politics and development processes and practices on the Gander River.

[12] That is, beyond a spatial understanding of locations, or even solely strict territorial definitions of place. Place is simultaneously territorial and relational.

Table 2.1 Criteria and considerations in place-based development (adapted from Roseland, 2000; Reimer & Markey, 2008; Markey, 2010)

Criteria and considerations in place-based development*		
Economic	*Social*	*Environmental*
Place-based branding	Participation in planning processes (local governance)	Community-based natural resource management
Economic diversity	Community associations	Sustainability initiatives
Informal economy	Identity and territoriality	Integrated planning
Quality of: transportation, built and economic and infrastructure	Quality of community infrastructure	Presence of territorial regional planning
Access to capital	Equity within community	Ecosystem-based management planning
Health of the local business sector	Community cohesion	Quality of environmental infrastructure
Presence of buy-local campaign(s)		

*this list is not exhaustive, nor is it exclusive

While the place-based development literature stresses the importance of mobilizing assets and resources for development outcomes, the key point in the field of new resource geography is that resources are not treated as a given, as something "out there" in the world remaining to be utilized. Instead, this theoretical framework insists that resources (and by extension, assets) are the result of complex technological, political, and social processes. There is a division in Anglo-American geographic research regarding resources. On the one hand, there is a large body of work concerned with the management and conservation of resources which is typically

characterized by the unproblematic use of the term resource, which is frequently referred to as natural resource management or natural resource geography (Bakker & Bridge, 2006). Generally, natural resource management seeks to organize and administer resources in order to meet certain objectives of public and private organizations such as efficiency and sustainability (e.g. Mitchell, 1989; Cutter *et al*., 1991). A number of authors argue this body of literature tends to be theoretically disinterested in exploring the materiality of resources and instead assumes a natural realist perspective, as evident by the very term 'natural resource' (Howitt, 2001; Bakker & Bridge, 2006; Bridge 2009).[13] The supposedly 'common-sense'/natural realist understanding, which sees resources as material that precede human intervention, informs the vast majority of the managerial/conservational resource literature and has profound implications on how resources (and resource users) are problematized and on subsequent managerial decisions. On the other side of the divide is critical resource geography, (commonly referred to as resource geography) which, as the term suggests, takes a critical stance on the assumption that resources are 'natural' or indeed that resources exist entirely independent from human ingenuity and resourcefulness in crafting them (De Gregori, 1987).

One of the key elements in distinguishing natural resource management and new resource geography arises from the contention in claiming resources as 'natural'. By assuming that resources exist in nature, that is, prior to human influence, natural resource management typically proceeds by implementing technical solutions to the problem of management without investigating the power imbalances or socio-ecological relations that underlie these management decisions. There is often a power imbalance between those that are formally and professionally

[13] Here, materiality is conceived through sets of hybrid and heterogeneous relations that are not pre-given, but rather remnants from historical contingencies and continued enactments which are embodied in some form (Bakker and Bridge, 2006).

involved in the management decisions and those that are materially affected by the ensuing policies and programming, such as commercial and recreational users and Aboriginal peoples. Framing resources in primordial terms obscures these politics, and effectively precludes these identities, practices and relations from entering in on questions surrounding resource decision making. Howitt (2001) states that coming to terms with these power transactions through exploring the complex social-political processes involved is essential to understanding the problematic relations between those engaged in resource management systems and Indigenous peoples.[14] The issues that are drawn into play on the Gander River include decisions around resource management and development along the river, but to stop at this theoretical juncture would be at the expense of excluding the expression and description of these other realities.[15] That is, to assume that natural resources are simply objectified entities derived from the earth, as it has been so often assumed in natural resource geographies (e.g. Mitchell, 1989; Cutter *et al.*, 1991), denies the possibility of different ways in which 'resources' might be used.

There are a number of implications in focusing on critical resource geography as opposed to the geography of resource management and conservation. Through engaging with this literature, I hope to avoid some of the theoretical shortcomings of traditional management geography by engaging in a critique of its underlying problematic. In doing so, I will allow an opening in my research to explore alternative ways the people think about, and indeed enact the Gander River which would otherwise be excluded from the managerial and traditional development approaches, as well as place-based development.

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[14] These management systems can be understood as government agencies, academics and other researchers, and planning and development practitioners.

[15] indigenous and non-indigenous understandings and practices on the river and surrounding environment.

Constituting resources, economies and places involves performances and practices. Instead of speaking about 'objective' reality, performativity suggests that realities are continually constituted through performance of (particular) discourses and material practices (Butler, 1999; Miller, 2011). As suggested, both place-based development and new resource geography demonstrate at least some level of performativity, albeit in varying degrees. However, in tackling the questions of how 'river-based' identities and practices are expressed by Mi'kmaw and non-Aboriginal residents, and how these collective identities are mobilized in the context of resource politics, I have taken performativity a step further by turning to the STS literature, in particular praxiography (e.g. Mol, 2002; Mol, 2008a; Law & Mol, 2011). Praxiography is defined as "an *empirical philosophy*, which breaks with perspectivalist understandings of the world. It runs against the dominant view that there is a single world out there that can be understood in different ways" (Mather, 2014, p. 99). Rather, in the case of Mol's (2002) investigation, praxiography "destabilizes the relations between our knowledge practices and the objects we are analyzing…[such that] our analyses are no longer separate from the worlds we describe" (Mather, 2014, p. 100). In Mol's (2002) *Body Multiple*, atherosclerosis is a disease that takes multiple forms based on the diverse sets of practices used to enact these forms. For example, clinical atherosclerosis presents as pain in a leg, requiring a patient describing this pain, whereas pathological atherosclerosis does not require a patient or patient interviews, but rather, a cross-section of an artery and a microscope are required to enact the pathological disease. Ultimately, in addressing these questions, I have used praxiography– as an empirical investigation of practices – to further explore the performances of the Gander River, in particular how these practiced performances enact alternative Gander River 'reals'.

STS and praxiography also have a specific way of treating methods in research. Here, it is necessary to expand the definition of method to encompass theorization, particularly the ways in which sets of theories guide research, such that research moves away from treating practice and theory as separate entities (Raghuram & Madge, 2006). Methods have often been treated in both the sciences and social sciences as the tools required to obtain data about reality; however, reducing methods to mere instruments, reinforces the dichotomy that there is a world 'out-there', outside of social influence, and sets the task for researchers to come up with the best *representation* corresponding with this world (Blaser, 2010; Law *et al.*, 2011). This is a Eurocentric, or modern, assumption of research and the world (Blaser, 2010). In moving towards 'postcolonial' research, it is useful, rather, to speak in terms of the *double* social life of methods, which "starts from the recognition that methods are fully of the social world that they research; that they are fully imbued with theoretical renderings of the social world" (Law *et al.*, 2011, p. 4). That is, methods are both constituted by *and* constitute the social world. In Aboriginal Studies, methods are treated as a way of telling *stories* (King, 2003; Blaser, 2010). In this way, we cannot differentiate theory from methods, as they are all stories produced in the worlds in which they speak. These stories are not produced out of thin air; rather, they are practices that are embodied in institutions and behaviours (Blaser, 2010).

Investigating how river-based identities are mobilized in resource politics on the Gander River involves observation and analysis of those practices that take place on the river, which is an integral component of doing praxiography. This is also a critical first step in addressing the question of what is the Gander River, which lies at the core of resource politics. Using a praxiographic approach reveals the answer is that there are multiple Gander Rivers – rather than a diverse set of perspectives of a single river (Mol, 2002). In describing the practices that I have

experienced on the Gander River, I must be clear on two points: first, following the logic of praxiography, I must attend to the details of practices, including the particular networks of people, non-humans, technologies and relations that these practices achieve in enacting temporally and spatially specific – that is, *dynamically specific* (Barad, 2007)- realities. Second, by doing praxiography, I too am engaging in a practice that enacts particular realities, which is to say that this research is not merely a description of the Gander River(s), but an intervention in the world (Mather, 2014). In effect, I co-constitute the emerging realities on the Gander River simply by bearing witness to them in this analysis.

2.2.2 Positionality in the research processes

Postcolonial methodology, alongside feminist and Indigenous scholarship, has developed in response to critiques of "colonial" research (Valentine, 2002; England, 2006; Howitt & Stevens, 2010). Colonial research is characterized by near exclusive insistence on positivist understandings of the world, including the pursuit of purely objective, impartial and value-free knowledge, in which the researcher, who is considered the expert, extracts information from a submissive (and by default, non-expert) subject (Valentine, 2002). As such, it reflects the domination and subordination of the "others" knowledge, through the use of intrusive and non-participatory research methods (Howitt & Stevens, 2010), which further reinforces an asymmetrical relationship between researcher and research participant.

Reflexivity and positionality are two critical elements that appear throughout the postcolonial literature, and throughout humanistic approaches more generally (Sidaway, 1992; Chacko, 2004; Minkler, 2004; Pain, 2004; England, 2006; Dowling, 2010; Howitt & Stevens, 2010). England (2006) defines reflexivity as the self-conscious, analytical scrutiny of one's self as a researcher,

especially in terms of recognizing power dynamics in research relationships and its consequences for the participants in a project. To better understand and alleviate power imbalances, researchers need to remain aware of their position, the changes in their perceptions and opinions as well as changes in research interactions before and after data collection and during the writing and interpretation stage of the research (Downing, 2010). In addition to fostering equitable research relationships, fully reflexive research offers a greater understanding of how identity is constituted during the research process, particularly, that identity shifts in relation to context (Al-Hindi & Kawabata, 2002). By providing a positioned view of the researcher, reflexivity helps clarify the researcher's positionality in relation to the research (Al-Hindi & Kawabata, 2002).

England (2006) defines positionality as how people view the world from differently situated and "embodied" locations, though it can also refer to how we are positioned, whether by ourselves or by others. It involves aspects of identity, such as: race, gender, sexuality, level of education – markers of a person's relative position in society – where unequal power relations are implied (Chacko, 2004). Positionality is described as dynamic to account for the "changing combinations of affiliations of both researcher and subject [that] produce a multiplicity of identities, which variously allow for convergence or diverge of views, action and understandings" (Chacko, 2004, p.52). Moreover, researchers and informants perceptions of these identity markers vary greatly across different contexts, and over time/duration of a research relationship (Chacko, 2004). Ultimately, researchers must be aware of how these identities work across various institutional, geopolitical and material components of their positionality (Chacko, 2004).

In maintaining awareness of myself and my goals throughout this research project, I have attempted to remain sensitive to the people who are implicated in this process. As argued by Wilson (2008), research is a practice that reveals the beliefs and assumptions of the researcher

because research is not only our about unanswered questions, but so too our unquestioned answers. Because this research was (and is) a relational process, I am not only responsible to those involved, I must also be willing to be transformed by what they have offered to me. The task of postcolonial research, or Indigenous research as described by Wilson (2008), is to build "stronger relationships or bridge the distance between aspects of our cosmos and ourselves" (p. 137). In an attempt to come closer to this goal, I have allowed my overarching research questions to evolve in the face of my experiences on the Gander River. I have also been moved by the Gander River, the people I have met there, and especially the Atlantic salmon.

2.3 Methods and modes of inquiry on the Gander River

2.3.1 The Gander River case study selection

The Gander River Watershed is the second largest river system in insular Newfoundland and Labrador, located in central Newfoundland (Figure 2.1) - in the Gander-New-Wes-Valley/Kittiwake region. The Gander River watershed region was selected for a number of reasons, some of them related to the characteristics of the region and some more personal in nature.

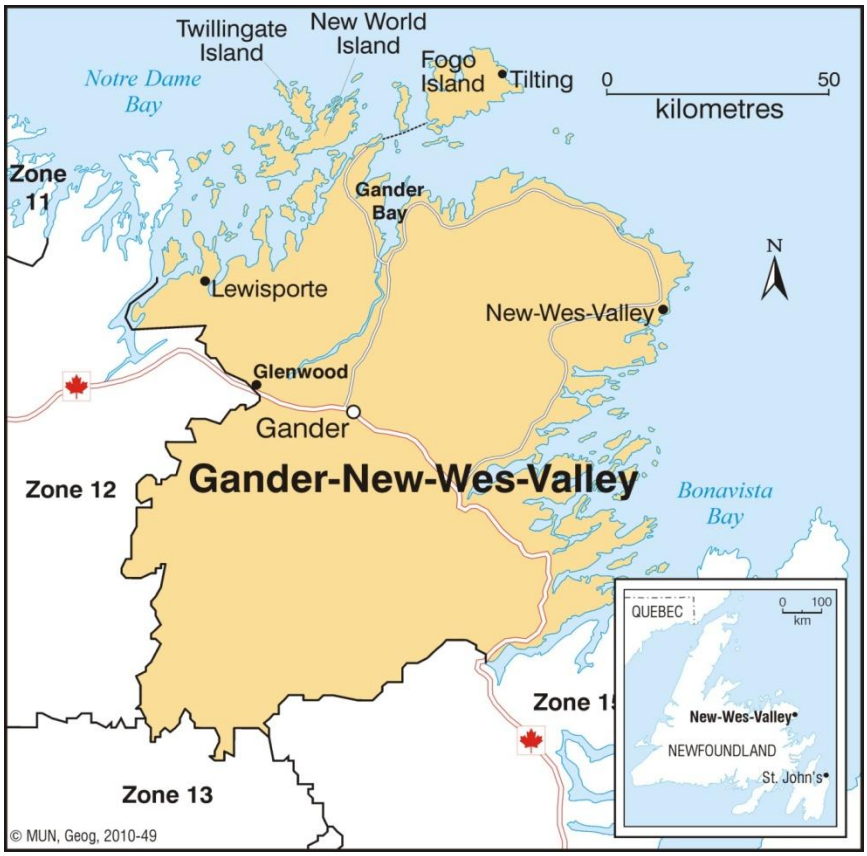

Figure 2.1 The lower section of the Gander River, from Glenwood to Gander Bay (Map Credit: C. Conway, Memorial University)

The Gander River and surrounding area was selected on the grounds that the communities of Gander Bay and Glenwood have a long standing connection with the river and forest resources dating back to the mid-19th century through to the present day.[16] These communities consist of mixed Aboriginal and non-Aboriginal populations. The region, especially the Glenwood area where the main stem of the Gander River meets Gander Lake, experienced dramatic changes in the late nineteenth century with the arrival of the trans-Newfoundland railway. This allowed greater access for European settlement and development, including the creation of major logging

[16] Settlement in Gander Bay has existed somewhat longer, but this was fairly limited to commercial fishery and thus was limited to the coastal areas as opposed to upriver (Pitt, 1984).

and saw-milling operations in the surrounding area. At this time and throughout the early 20th century, many residents, both Mi'kmaw and non-Aboriginal, from Glenwood, Gander Bay and Miawpukek First Nation on the south coast of the island were employed in the logging industry (Anger, 1983). As previously discussed, this makes the Gander River a key *contact zone* in which to explore questions around the impacts of policies, and development and management practices on Aboriginal- and non-Aboriginal communities' ability to govern resources and express their identities on the river.

I also came to select this area as a case study because of an interest in rural Newfoundland. During my undergraduate degree at Memorial, I had the opportunity to participant in a research project in central Newfoundland on implementation of socio-economic plans in rural communities. After meeting the leader of the Gander Bay Indian Band Council (GBIBC) at a planning-analysis workshop in October 2009, I discussed the idea of doing a community- based resource project for my Master's, which would have the Gander River as its focus. My initial contact with the Chiefs of GBIBC and the Glenwood Mi'kmaq First Nations (GMFN) was in February 2011 at the Band Council office in Glenwood. At this meeting, I enquired about research protocols specific to their communities, and discussed their interests in documenting their goals with respect to managing the Gander River watershed. My research on the Gander River, particularly the explorations of place-based development and local governance at this site, also contributes to a larger project entitled *Canadian Regional Development: A Critical Review of Theory, Practice and Potentials.*[17] In the *Canadian Regional Development* project, led by Dr. Kelly Vodden, the research team examines the regional development policies and practices in

[17] See http://cdnregdev.ruralresilience.ca/

four provinces: Québec, Newfoundland and Labrador, Ontario and British Columbia, and in specific regions in each province.

2.3.2 Data collection

Qualitative methods are typically used for asking questions that seek "to decipher experiences within broader webs of meaning and within sets of social structures and processes" (England, 2006, p.291). Quantitative methods, while not excluded from feminist, postcolonial or Indigenous research (Minkler, 2004; Pain, 2004; England, 2006), are better suited to questions that seek to measure representative samples and general patterns of phenomena, and thus are less appropriate for my research objectives in this project. Kenny *et al.* (2004) suggest that qualitative methods highlight identities and the stories of people, particularly the meaning that people attribute to these narratives. A few potential pitfalls of qualitative methods include: bias resulting from overreliance on key informants, selective attention to dramatic events, and biases arising from the respondents and the site on the researcher (Kenny *et al.*, 2004). While these are legitimate concerns, they have been mitigated in this research insomuch as I am not trying to gain a representative picture of the communities along the Gander River, rather my intent is to elaborate on those practices and understandings revealed through a critical ethnography of the river.

I collected both secondary and primary data sources throughout this research. Secondary source were sought out independently and in collaboration with the GBIBC and the GMFN. Sources have included collections from the Centre of Newfoundland Studies (CNS), the Provincial Archives of Newfoundland and Labrador (PANL) and electronic databases through Memorial Libraries looking at issues of *Decks Awash*, published by the Extension Service of Memorial

University and *Newfoundland Quarterly*. Additional non-governmental and governmental sources incorporated key websites and legislation, including: the Federation of Newfoundland Indians (FNI), The Qalipu Mi'kmaq First Nations, federal legislation- the *Fisheries Act* (1985) and the *Indian Act* (1987) and provincial legislation- the *Wild Life Act* (1990), the *Lands Act* (1991), the *Water Resources Act* (2002), and the *Gander River Protected Area Regulations* (2006), under the *Urban and Rural Planning Act* (2000). Additionally, I was given access to various residents' private collections of journals and newspapers clippings in Glenwood and Gander Bay.

Primary data collection took place over a number of visits to the region, June- July and September- October 2011. I subsequently conducted interviews in St. John's between June 2012 and April 2013. Methods of data collection consisted of semi-structured interviews (Appendix A), participant observation and the use of a personal research diary. In the semi-structured interviews I made attempts to avoid theoretically "loaded" terms; however, whenever misunderstandings around specific language or development related concepts occurred, the interview followed a more conversational and unstructured form. Thirty-one people were formally interviewed over twenty-seven [27] focused interview sessions (Appendix B), which included interviews from: Aboriginal Fishery Guardians (AFG) [3]; Atlantic Canada Opportunities Agency (ACOA) [1]; Salmonid Council of Newfoundland and Labrador (SCNL) [1]; Contract guardian [1]; Fisheries and Oceans Canada (DFO) [2]; NL Department of Natural Resources (DNR) [1]; NL Innovation Business and Rural Development (IBRD) [1]; Gander Bay and Glenwood Band chiefs [2]; Gander and Area Chamber of Commerce [1]; Gander River Management Association (GRMA) [3]; Mi'kmaq Band members [3]; Municipal/local service district representatives [2]; local residents [3]; and private business representatives [3]. It should

be noted, that the above interview classification is used to provide a broad sense of the types of individuals and organizations interviewed in this research. In reality, those individuals interviewed wore multiple hats, and thus, have more complex professional and personal experiences than illustrated in the above classification.

Semi-structured interviews are more question-directed than unstructured interviews, allowing the researcher to redirect the interview should it get too far off topic, but which still allows the informant to answer questions in their own terms (Dunn, 2010). A number of authors emphasize that, despite not having pre-set questions, unstructured interviews require a great deal of preparation, such as the collection of secondary historical sources and archival materials (e.g. Richie, 2003; Dunn, 2010). This is necessary for researchers to have some sense of the history and context to which their informants are speaking, and it enables researchers to probe and explore topics that may not be addressed by interviewees (Richie, 2003; Dunn, 2010). To prepare for interviews, I spent the two-month period prior to entering in the field engaging with secondary resources to familiarize myself with the region.

Interview participants were identified in collaboration with members of the band councils, in particular, the chiefs of the GBIBC and the GMFN. Additionally, in preliminary meetings with the chiefs of GBIBC and GMFN, which took place between February and May 2011, we discussed the project goals and outcomes that they would like to see through the research. At these meetings, they also provided comment on research tools, specifically the consent forms and project description to confirm the content and terms used were appropriate. When establishing informants, Valentine (1997) describes the role of the gatekeeper – a person in an organization or community who has the power to grant access to other informants. The chiefs of GMFN and GBIBC acted as gatekeepers while in the field and my main contacts in the region with whom I

still remain in contact regarding the river and this research project. While gatekeepers are very important contacts, researchers are cautioned not to rely too heavily on this person as gatekeepers have the power to withhold information regarding other relevant contacts (Valentine, 1997). While I did not find this to be a concern in this research, I do see the value of establishing alternative ways of contacting people in addition to my initial contacts. Another valuable way of recruiting is "snowballing", a process where one contact helps a researcher recruit another, establishing a horizontal network of potential informants (Valentine, 1997), and I found this approach to be quite effective in establishing new interview participants, particularly with people who are active in their social networks or have a well-known degree of experience on the river.

Ethnographies are constructed using various methods, including: interviews, narratives and participant observation. As the first two techniques have been discussed, this section will provide a brief overview of participant observation. Traditionally, the vast majority of ethnographic research has been constructed through the use of participant observation (Cook & Crang, 1995). Cook and Crang (1995) suggest that this method has been used to comprehend "the world views and ways of life of actual people in the context of their everyday, lived experiences" (p.21). In other words, participant observation allows researchers to understand how people conduct their lives through their habitual practices. I used participant observation on the Gander River to get a better sense of how community members interacted on the river and with local resource politics. As a participant, the researcher is immersed in the routines of a community's daily rhythms, including developing relationships with people who help him or her decipher what is "going on" in the community (Cook & Crang, 1995). In the past, to be an observer has implied sitting back and taking in information as an 'objective' viewer, although more recent literature suggests that the observation act is always an intersubjective understanding brought about between the

researcher and the research participants (Cook & Crang, 1995). That is, the researcher and those being researched collectively produce the research experience, and by extension, the field data. In this respect, my research diary played a critical role not only as a record of such observations, but also as a tool to reflect on how I was in fact influencing the realities in which I was conducting research.

2.3.3 Relational accountability

There have been, and continue to be, numerous considerations made with respect to the ethical conduct of research within this project. In addition to following the guidelines laid out by Memorial University of Newfoundland's Interdisciplinary Committee on Ethics in Human Research (ICEHR) and the Tri-council Policy Statement (TCPS2) on "Ethical Conduct for Research Involving Humans",[18] I also sought out local and regional research boards as they related to doing research in Mi'kmaw communities in insular Newfoundland and Labrador. As it turns out, there is no such board in place for this province. However, I did discuss the guidelines set out by the *Mi'kmaw Ethics Watch* in Nova Scotia with the band chiefs in Gander Bay and Glenwood, and they stated that such policies did not apply in their regions.[19] I was given support by each of the chiefs for the GBIBC and the GMFN, who assisted me in the development of community engagement and participant recruitment strategies for the research. Likewise, I consulted with the band chiefs regarding potential knowledge mobilization projects in the

[18] I focused especially on those considerations addressed in Chapter 9: Research involving the First Nations, Inuit and Métis peoples of Canada

[19] This is as far as administrative functions were concerned; although there were general principles with the *Mi'kmaw Ethics Watch* that I felt were applicable in the context of Central Newfoundland. One such example (and there are many) is protocol no. 3 "All research partners must show respect for language, traditions, standards of the communities, and for the highest standards of scholarly research (Mi'kmaw Ethics Watch, n.d.)". However, this issue of administrative capacity /the presence of formalized ethical codes speaks to a larger concern of research ethics in both Aboriginal and non-Aboriginal contexts.

communities, a process that is ongoing.[20] Additionally, representatives from the FNI were informed of the project details and objectives through email and telephone correspondence, although they did not participate directly.

The guidelines that I followed from ICEHR and the TCPS2 included consideration around: the harm and benefits of the research, free and informed consent, privacy and confidentiality, conflict of interests, and, as previously mentioned, research involving Aboriginal peoples. While there are obvious merits to each of these considerations, during the research process I began to seriously question who exactly I was satisfying by following these principles. In particular, I found gaining consent from participants an invaluable process in assessing "the ethical" because it often seemed the case that they were suspect of, or at the very least, unsure of the consent form. In a few cases, the process of asking for consent was unsettling for participants even though these individuals had already agreed, over the phone or in person, to speak with me about the river and often I was already sitting at their kitchen table or some other personal space with an open invitation to talk. Did I not think I was a trustworthy person? Was there a reason that I needed forms to indicate to them that I was going to use this information in a responsible, respectful manner? In this way, such protocols seemed to carry a formality that made people uncomfortable, but they also separated me- for a moment, or perhaps longer- from any other conversation that my hosts would have in their home.

[20] In terms of community-based knowledge mobilization projects, I presented a poster to the GMFN in Glenwood on National Aboriginal Day in 2012 based on some of the Mi'kmaq involvement in resource governance and local development initiatives on the river. This poster was also printed off in a smaller format, by the request of a number of research participants, for people to display in their homes in Glenwood and Gander Bay. I am currently in discussion with the chief of the GBIBC regarding the format of a pamphlet similar to the poster as well as a summary report of geared at Community Watershed Management public policy recommendations based on the results of this research.

Relational morality is a key feature in Indigenous studies and postcolonial research (e.g. Smith, 2005; Wilson, 2008; Blaser, 2010) which insists there are moral implications from asserting a 'procedural' correctness as the epitome of ethics as it relates to doing research. What constitutes good and bad, although highly complex, tends to be constructed as 'common sense' (Longhurst, 2006). But in a relational context, what exactly is this "common" sense? It seems unlikely that such sense belongs to, and can be equally obtainable among all people, in all circumstances- especially given that the cultural contexts in which geographers do research varies dramatically from place to place. As researchers, we need to be cognizant of how our personal/institutional ethics are received in the field, and likewise we need to remain aware of when others' ethics are valid, even if they conflict with our own. To borrow from Smith (1997) an important role for geographers is to "take up where most philosophers leave off: to examine the contextual thickening of moral concepts in the particular (local) circumstances of differentiated human being[s]" (p. 587). In this way, the ethical thing has to arise from the ethos of being responsible to our relational other. This amounts to being accountable to relationships that form through the course of research, with people but also with non-human entities,[21] which in turn, open possibilities for new and different responsibilities (Wilson, 2008).

2.3.4 Analysis and the co-production of the Gander River

In negotiating the *tricky ground* on which Indigenous, postcolonial, feminist research takes place, Smith (2005) insists it is critical to acknowledge that the 'decolonization project' reaches multiple layers at multiple sites. In other words, research projects of a postcolonial nature – that is, those projects which aim at positively impacting people's lives – require us, as researchers, to

[21] Such as non-human living things, but also 'non-living' entities such as books, papers, even the laptop from which I write, which is sorely in need of updating.

be conscious of how we 'decolonize' our own thoughts and cognition during the research process.[22] There is great value in being open and aware of how postcolonial research transforms our own lives as researchers (Smith, 2005). The very act of personal reflection and exploration can give light to the very realities that we come to understand in research.

Relationality and the degree to which I am intervening and interfering with this research on the Gander River have been fundamental considerations throughout this project. Conversations with my supervisors especially, as well as with my academic peers and contacts from the Gander River, were critical in the iterative process in which I analyzed the data collected. At its core, this research could not have happened without the many relations 'holding it together': from people and texts, to the water flowing downstream and the salmon tirelessly pushing back. However, this thesis is also an intervention on my part, which disrupts commonly held notions and narratives about the Gander River.

Turner (2000) argues that it is not enough for the reflexive researcher to remain analytically conscious: we must also understand our role as "embodied, sensing, acting, socially situated participant[s]" (p.52). Turner provides a call to action – to critically engage with what is meant by the term "participation" when it comes to participant observation. Without a more fully expanded understanding of the researcher as a real participant- or an insider- within a particular social context is to deny the capacity and the ability of those being researched- 'the research subjects'- the possibility of relating with the researcher throughout the process (Turner, 2000;

[22] These people often appear be the research subjects within action research projects. Action research often entails the (well-intended) goal that a researcher should want to bring about and promote positive change or solutions to people's 'real world' dilemmas through research.

Collins, 2010). Moreover, Turner (2000) states that the social activities, which the researcher takes part in, develop meaning and become a critical element of observation and analysis.

Another consequence of not critically engaging with the researcher's role during fieldwork and analysis has to do with what Aitken (2010) refers to as the *crisis of representation*. He states: "even if I accept that I cannot write for so-called 'others', my suggestion that writing about 'my perspective on being in their worlds' calls in to question that *a priori* existence of many different, distinct 'cultures' and an unproblematic distinction between my perspective and that of another" (Aitken, 2010, p. 47). Here, ethnographic fieldwork cannot be conceived as "a representation that can be attributed to 'their culture' or to the things 'they do'. We have learned nothing of 'them'. What I have learned about is 'we' as a negotiating social configuration" (Turner, 2000, p. 55). In short, the performances of the researcher, as well as her relationships with any other person or thing under study are critical in the analysis of an ethnography- auto-ethnographic or otherwise. These performances constitute realities. To draw from Aitken (2010) once more: "out of connectedness arises a politics of difference, of cultural distinctiveness if you will, that is not simply reducible to a politics of representation because it is also about the emotions that encounters with difference and diversity entail" (p. 47).

Upon returning from the first intensive round of fieldwork in September 2011, I constructed a series of mental maps based on overall impressions of the interviews, participant observation, and notes from my field diary. The place-based development literature and postcolonial and Indigenous studies literature framed basic themes emerging in these mental maps. After this early analysis, I applied critical resource geography literature, furthered by STS and praxiographic approaches to not only focus my analysis of the abundant and multifaceted information I had collected, but also to engage with the ontological nature of resource politics on

the Gander River. Subsequently, the recorded, semi-structured interviews collected in this project were transcribed and thematically coded using a word processor. The themes were selected from the place-based development literature- particularly the place-based asset criteria developed the *Canadian Regional Development* project (Table 2.1) and from key words and themes emerging from the critical resource geography literature and the work of Mol (2002) and Mol and Law (2011). Notwithstanding the previously discussed theoretical influences, I used similar analytical procedures and processes in organizing data in the two main empirical chapters that follow.

In each of the empirical chapters that follow, I provide an analysis of the primary and secondary data collected in combination with place-based development, and new resource geography and STS literatures, respectively. The place-based development chapter (Chapter 3) is set up in such a way to explore how development and local resource governance has taken place on the Gander River, and how the various Mi'kmaw and non-Aboriginal actors have been involved to this end. In this chapter I also discuss, in part, some of the ways in which the various groups of people identify with the river. It is important to note here that this chapter has been set up in such a way that I am using the term place, and particularly the term 'assets', as they are used in the place-based development literature. To some extent this literature addresses the performative, relational and phenomenological qualities of places emerging from the geographic literature (e.g. Buttimer, 1976; Massey, 1994; Massey, 2004). However, the mobilization of assets, as a concept, within place-based development practice reveals some important issues that perhaps prevent place-based development in providing a genuinely alternative vision of what is at stake on the Gander River, and subsequently how to show good care on the river. In the second part of Chapter 3, I provide a *sympathetic critique*, where I explore some of these issues further. In attempting to address some of the challenges emerging from the place-based development

framework, in Chapter 4, I explore the different ways in which the Atlantic salmon are enacted on the Gander River. This analysis has been developed alongside the new resource geography and STS literatures and I have positioned this chapter as a kind of response to the previous chapter in that through exploring the diverse sets of practices, which I argue enact different Atlantic salmon, it is clear that resource politics are ontological in nature. In this sense, the multiple salmon demonstrate that discussions about what is good for the Gander River, vis a vis how it is best developed and/or governed, are deeply immersed in questions of care across various alternative, dynamic and emerging river realities.

Chapter 3 Place-based development and the Gander River

3.1 Introduction

Place-based development emerged as an alternative to traditional sectoral, 'needs-based' development, including previous regional policies on economic growth and development (Tomaney, 2010).[23] These traditional forms of development tend to promote "top-down" interventions and *spatially-blind* (Barca *et al*., 2012) strategies, including, in the case of rural communities, the focus on single sector development as well as taking a neo-liberal approach to development such that individuals are assumed capable of acting independently from those around them (Markey, 2010). It has been widely noted that such development strategies disregard the role of identity and place on individual and collective groups' wellbeing (e.g. Howitt, 2001; Blaser *et al.*, 2004; Rose, 2004; Escobar, 2008; Reimer & Markey, 2008; Halseth *et al.*, 2010). Markey (2010) argues that the growing significance of place within development is reflected in the work of Doreen Massey recognizing that "combinations of assets, populations, histories, and circumstances mean that general processes are always modified by the matrix of place" (p. 2, cf. Massey 1984). At the heart of place-based development is an emphasis on local community development, which provides communities with hope and a means to challenge macro-economic and political forces. As stated by Reimer (2006), "rather than passively suffer the consequences of external pressures, community development approaches provide useful

[23] More conventional forms of development have been characterized by an almost universal application of those policies, programs and practices deemed most appropriate by western science and political economic agendas. These have has been applied in various setting, including: the developing world and the Global South, crisis zones, and economically depressed and rural regions. As stated in Chapter 2, this kind of development typically follows the structure of 'top- down' control, single sector and large-scale industrial projects and pays little attention to local context, including historical, socio-cultural, political, and environmental contingencies in places.

strategies and frameworks for communities[24] to take proactive measures to prepare for a build and better future" (p. 155).

How is place understood in place-based development? While place is never formally theorized, in practice place is often understood in place-based development as a site of resistance against large-scale economic and political perturbations. Places are also sites with inherent value rather than simply sites that are deficient and in need continuous external improvement. However, it is largely unclear which theoretical commitments to place are critically engaged with in place-based development literature (e.g. Buttimer, 1976; Harvey, 1996; Massey, 1994, 2004; Cresswell 2004) – or the extent to which nuanced understandings of place are mobilized in development (Daniels *et al*., forthcoming). Despite this lack of clarity, acknowledging places as sites where people and bio-physical landscapes converge in personally relevant, historically embedded and dynamic ways (Cheng et al., 2003) offers a useful starting point in exploring place-based development on the Gander River.

Places in place-based development are more than sites of resistance against large scale economic processes; they are also sites where assets are found and potentially mobilized for development. A key aspect of place-based development is the use and mobilization of the term asset. Proponents of place-based development, and the similarly oriented, asset-based community development (ABCD), argue that assets exist, in some form, in all places. In contrast to "needs-based" and sector focused development models, the deployment of assets shifts our understanding of communities as lacking and in need of external development interventions to communities having strengths within, which are often overlooked (McKnight & Kretzmann,

[24] Such as municipalities, or in the case of Newfoundland and Labrador, local service districts

1993; Mathie & Cunningham, 2003). Critical in the utilization of place assets is the leadership and participation of local community and regional actors within development (Markey *et al.*, 2008; Reimer & Markey, 2008; OECD, 2010), with an emphasis on the agency of these actors, as opposed to the structures in which they operate (Halseth *et al.*, 2010). In this way, place-based development, ABCD and community economic development (CED) share a common approach to development as well as intellectual origins (Markey *et al*. 2008; Fullerton, forthcoming). Place-based development also addresses issues around regional economic competitiveness and regional development concerns more broadly (Markey, 2010; Tomaney, 2010), which is somewhat neglected in the ABCD literature (Green & Haines, 2012). As stated by Markey and Reimer (2008), a place-based development approach, aligned with new regional development strategies, also recognizes the importance of communities, or municipalities, working with those actors outside of themselves. These include regional (i.e. multi-municipality), provincial and federal actors and organizations, which are recognized as key partners within an integrated place-based development strategy.

The place-based development framework is a holistic model in that it considers more than simply economic indicators of development. This, in part, stems from literature exploring 'other' capitals[25] (Bourdieu, 1986; Roseland, 1992; Putnam, 2000; Beckley *et al*., 2008) in combination with those traditions, such as CED, that focus on particular places as the cornerstone of community well-being and successful development agendas.[26] The organizing principles

[25] That is, other than economic capital, including (but not limited to) environmental and social capitals

[26] Not to suggest that place-focused development models have superseded or even made obsolete other development frameworks, but rather a sentiment that there is something missing with regards to local participation that may point to deeply flawed aspect of indiscriminately rolling out "top-down" development strategies across large regions. In recent years, it has been the flavour of the Canadian federal government to promote place-based and community oriented strategies as an important component of community vitality, which

emerging from place-based development include: economic, social and political inclusivity, diversification of economies (drawing from multi-capital assets) and economic activities, and regional and place-orientated development policy, rather than policy with a strict sectoral focus (Barca, 2012; Breen *et al.*, forthcoming). In the analysis that follows, I have organized various place-based development assets into three broad categories: social, environmental and economic.[27] Within each of these categories, I have listed a series of criteria which can be used to indicate the presence of particular assets, which are reflective of the place-based ethos, particularly when they are mobilized for local development (see Table 2.1). Using these criteria I will explore the ways in which place-based assets have been mobilized on the Gander River.

Despite the positive shift towards development strategies focused on multiple, place-based assets for communities, this research indicates that although the Gander River area has (and had) good quality assets to work from- many development outcomes have not been realized.[28] One explanation for this offered by the place-based development framework is the question of *capacity* on the part of local actors to mobilize their assets, and by extension, achieve some form of prosperity or positive development outcome. Reimer (2006) defines capacity as "the ability of communities or groups to reorganize assets to produce valued outputs" (p. 156). The concept of "ability" – in particular, *local* ability- is a key theme in this chapter as it is often assumed to be a determining factor in development successes, or conversely, development failures. However, the

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is particular evident in rural policy directives since the early 1990s. Despite this, it would be foolhardy to suggest that communities should focus developing their assets as a sole strategy, especially without the support of intermediate and federal levels of support- be it in terms of policy, legislation or resources.

[27] Beckley *et al.* distinguish human capacity from social capacity. Others authors include institutional capacity (e.g. Reimer 2006).

[28] Particularly those communities located in rural and otherwise "peripheral" areas with respect to relative distance from major regional centres and urban areas, where economic, administrative and political power is typically centred.

analysis I provide demonstrates that assets were not (fully) mobilized because higher levels of government were not receptive to local forms of asset mobilization, in which case, we cannot point to local capacity as a chief deciding factor in development outcomes. Moreover, there are other reasons these 'place-based assets' were not mobilized on the Gander River, which point to some of the inherent problems in place-based development.

The remainder of chapter will proceed in three sub-sections. First, I will illustrate a few key assets (or sets of assets in some instances) which have been identified in the Gander River watershed, and the ways they have been drawn upon, as a means of exploring the utility and strengths of the place-based development model in this region. Through exploring these assets, it is evident that the traditional approach adopted by the provincial government to natural resource and fisheries management has not taken local interests and abilities into great enough account. Consistent with place-based development, on the other hand, community and regionally-based organizations have recognized and built on local assets – and in the process have become assets themselves – often in an attempt to shift power imbalances existing between different governmental and non-governmental organizations (and individual people) around decision making and governing the Gander River region.

While the place-based development approach provides important insights into development on the Gander River and regional development more generally, development outcomes are the result of a set of complex processes, institutions, multi-jurisdictional actors, not to mention contestation of the notions of development and place, leading to potential difficulty when outlining "best" practices and coherent policy directives. As such, I also discuss some of the underlying problems in the place-based approach in defining development on the Gander River. In section 3.3, I provide a sympathetic critique of place-based development and argue that place-based

development suffers from similar problems to more conventional forms of development. Specifically, the politics surrounding planning and development processes – in this case, in defining assets– can be somewhat concealed (Ferguson, 1990). Additionally, in terms of engaging with place multiplicity and difference, I argue that place-based development – at least as far as it is practiced on the Gander River – cannot shed its modern/western orientations. In order to break from modern, rationalist agendas, place-based development must take into account not only epistemological differences in how various groups of people know, understand and personally identify with a place, but also multiplicity of places, based on how they are constituted differently through practices, and are, thus, ontologically different (Escobar, 2008). From a postcolonial perspective, the place-based development framework does not lend itself to providing *alternatives to modernity,* which Escobar (2008) states is "a more radical and visionary project of redefining and reconstructing local and regional worlds from the perspective of practices of cultural, economic, and ecological difference" (p. 162-163).

Finally, the chapter concludes by suggesting two possible routes. First, we can make improvements to the place based development approach – and several options are suggested based on observations made in section 3.2. Alternatively we can take a different path. This second path, I argue, requires that we attend more carefully to the different practices associated with resource use on the Gander River. The multiple practices associated with resource use do not reflect different cultural or economic perspectives, but instead represent different ways in which the river and its resources are *enacted*. This mode of inquiry provides a way of exploring diversity and difference more equitably.

3.2 Place-based development on the Gander River

In this section I will explore the assets on the Gander River, the ways they have been used in attempts of local development, and the extent to which these are explicit attempts at place-based development. The assets are described through a series of narratives, based on the organizations and people involved in resource governance and local economic development within the watershed region. It is important to note that the various assets and sets of assets demonstrated overlap across events, organizations and individual actors. It will become readily apparent that the place-based assets are not discrete entities. However, for the purpose of outlining this section, the assets and examples of how they are employed in place-based development (based on criteria identified in Table 2.1) I discuss below are arranged in the following subsections: local governance processes and entities; community-based environmental management processes; community cohesion and public participation in planning; and economic diversity and community economic development processes. Additionally, these assets were not necessarily described as such by interview participants. Rather the elements explored here have been identified as strengths or important features that exist, or have existed, in the area, from the perspective of those interviewed. In terms of the language, the place-based development approach treats assets similarly to strengths, endowments, and capacities, provided that the asset in question is situated in place and provides some kind of benefit or advantage to that place.

3.2.1 Local governance and the Gander River Management Association

One of the main goals of place-based development is to attain effective local governance. Local governance is a cross-cutting theme in place-based development and I use the term in this analysis to describe a set of place-based assets. Governance and assets are related in the context

of place-based development because governance involves a series of assets, for example: local leadership and, in the case of the Gander River, an environmental asset, such as the river itself, which is governed in some form as well as being an important part of people's identity. In this research, governance is best described as both collaborative and multi-level. Multi-level by involving decisions which are made through partnerships between state and non-state actors and organizations existing across multiple scales (Vodden, 2009; Gibson, 2011), and collaborative, which requires "high levels of interdependence [between partners], the need for resources and risk sharing, resource scarcity, a previous history of efforts to collaborate, [and] a situation in which each partner has resources that the other partners need" (Thomson and Perry, 2006, p. 21). Social, economic and environmental assets all play a role in local governance, in this case of the Gander River, through the presence of: public participation in planning, community associations, community-based natural resources management and integrated planning mechanisms and processes. The local governance[29] discussed here is not about Aboriginal self-government in any formal sense of the definition,[30] but rather a kind of multi-level governance, where decisions are made as part of a series of conversations and negotiations between Mi'kmaw and non-Aboriginal community/municipal actors and members of the provincial and federal governments, who more often than not, have the greatest influence on policy. The Gander River Management Association (GRMA) represents an excellent example of local governance.

[29] Additionally, the focus on governance, and in particular local governance, implies community members and those people who identify and belong to a particular place, have a greater influence in those decisions that govern their lives than in a system governed exclusively by government, often located in centres distant from rural regions (Rhodes, 1996; Stoker, 1998).

[30] As defined by Aboriginal Affairs and Northern Development Canada "self-government agreements set out arrangements for Aboriginal groups to govern their internal affairs and assume greater responsibility and control over the decision making that affects their communities (AANDC, 2014).

GRMA emerged in the context of increasing federal and local concern over Atlantic salmon stocks and an associated interest in new approaches to watershed management. In the late 1980s, Atlantic salmon stocks became an increasing concern of the federal government, which in turn, sparked their interest in Community Watershed Management (CWM) in Atlantic Canada (GRMA, 2003). Through the Cooperative Agreement on Salmonid Enhancement and Conservation (CASEC) initiative in the early 1990s, the federal and provincial governments started to invest in CWM groups, which were operating, or in the process of being developed, on rivers across the province. During the same period, local residents in the Gander River watershed area expressed a concern for what they saw happening to the salmon stocks on the river. As a result, GRMA was formed in 1992 under the CASEC initiative as an umbrella group with its board consisting of elected members of various stakeholders groups in the river region (GRMA, 2003). In 1996, after the core CASEC funding had ceased (Pers. Comm., IBRD), GRMA was formally awarded CWM status by the provincial government and was required to prepare annual management plans for the Gander River (GRMA, 2003). Through the course of its 15 year operation on the Gander River, GRMA was involved in a number initiatives aimed at bringing a greater local voice to river management. During its operation, GRMA worked in collaboration with DFO, Department of Environment and Conservation (DOEC), the Department of Natural Resources (DNR), in addition to those groups from which the board members were affiliated and the general public. Currently, and during the period of GRMA's operation, the provincial government has jurisdiction over inland waters and other watershed resources (e.g. forests, minerals, tourism licensing) and issues salmon angling licenses, but the salmon are managed through guidelines set by DFO. Members of GRMA were also effectively monitoring the river to ensure that the development restrictions, including illegal road and cabin development and

minimum buffer requirements, set out by the *Water Resources Act* (2002) and the *Gander River Protected Area Regulations* (2006) were followed.

At the local level, GRMA originated as a group of concerned citizens who had some kind of involvement or stake in the river resource. The board of directors was developed in conjunction with a regional planner, who worked for Innovation, Business and Rural Development (IBRD), a department of the provincial government. Members of the board included outfitters, cabin owners, local service districts, members of Mi'kmaw organizations, chamber of commerce and other individuals who were known to have a connection to the river and were knowledgeable of the resource politics occurring on the Gander. As one interview participant stated "we all came together, strength is in numbers, and if there were things on that river that need to be improved or addressed, we could do it as a group, more so than just one individual" (Pers. Comm., GRMA 2). GRMA's governance structure erred on the side of inclusion, and, through the work of the regional planner key players involved on the river were sought out:

> The key word is inclusive. If the process wasn't inclusive, if people felt like they were being left out… Well they can range from being mild dissenter to serious dissenter from an organizational viewpoint. That was my modus operandi, like if anyone should be involved they were involved. If not, they had the opportunity, and they [couldn't] come back later and say that they should have been involved (Pers. Comm., IBRD).

The principle of inclusion applied to both the development of the board and in recruiting general members from the public at large. Members of the public, particularly those that resided in Glenwood, Appleton and Gander Bay, or individuals otherwise connected to the river through recreational salmon fishing or cabin/lodge ownership on the Gander River were encouraged to participate at public meetings held by GRMA. Larger public meetings were typically held around issues pertaining to changes in policy by DFO, resource development and forestry issues (Pers.

Comm., GBIBC). In addition to public meetings, other engagement strategies included: news media releases, monthly newsletters – which went out to members and would update who was involved in GRMA, and new and ongoing activities – as well as national tradeshows and fishing conferences and visits to public schools in the region (Pers. Comm. GRMA 3). When GRMA folded in 2008 there were between 60 and 75 members, whereas in the beginning the membership was around 150 people who renewed their membership annually (Pers. Comm., GBIBC). In short, GRMA's attempts to be inclusive were in alignment with the organizational principles of place-based development. GRMA was an organization representing interests and values which lie at an intersection between "local" and provincial/federal, and closely parallels the concept of multi-level governance. From a place-based development perspective, GRMA itself became a strong local asset in the region.

In the early 1990s, local residents expressed a great deal of concern for the river, as it was described as being in a very poor ecological state. One of the biggest indicators of this was the dwindling Atlantic salmon stocks. According to one participant:

> When we started looking at the watershed it was in terrible shape. It had become seriously polluted from the two communities, Glenwood and Appleton. The number of salmon was down to 7100, of which there were 1400 large I believe. So the river, everyone was complaining about the river. Because, you know we had seen runs as big as 20, 30, and 40,000... that was the shell shocker. That told us all that the river were shot, and that if we didn't do it something we were going to lose our river. (Pers. Comm., IBRD).

In addition to the decline in the salmon population, there was an issue with the sewage effluent pumped into the river from the Appleton sewage treatment facility. This facility had been in disrepair for a number of years. Prior to the discontinued use of this sewage treatment system, a research participant noted that its aerator and agitator were entirely stripped and worn down, thus

rendering the system ineffectual and as a result raw sewage flowed directly into the river (Pers. Comm., IBRD).[31] The biophysical effects of this sewage included not only the physical presence of solid waste fouling up the river, but also a lower level of total dissolved oxygen and the excessive growth of algae. In effect, the river was undergoing a more generalized process of eutrophication (Environment Canada, 2013; Pers. Comm., GRMA 1).

GRMA, largely driven by local will and concern, was very active in various projects within the watershed system. GRMA's mandate was outlined through the CASEC agreement, but it was also tailored by a regional planner who worked with the provincial government and lives in the watershed region. The mandate – to improve the quality of the river environment for the sake of increasing the salmon returns – aimed to achieve environmental, social and economic development in a sustainable fashion. Projects and yearly initiatives included: the installation of public toilets along river; putting river guardians on the river to enforce DFO protocols and reduce/deter poaching; removing blockages and obstructions along the river channel; operation of the counting fences; mapping and monitoring salmon spawning site in key tributaries (i.e. Redd monitoring); increasing tourism infrastructure and developing and implementing a Gander River marketing strategy through advertisements, display booths and publications (GRMA, 2003). After the CASEC funding ended, GRMA also became increasingly focused on developing self-sufficiency initiatives (GRMA, 2003).

One key initiative GRMA was involved in that epitomizes place-based development was their attempt to gain greater self-sufficiency through generating their own income, thus reducing their financial dependency on the federal and provincial governments. This was through the

[31] The aerator and agitator are two key components in a traditional sewage treatment system, which respectively oxygenate and break down solid and effluent waste.

development of a Gander River specific salmon license, which was developed by GRMA in conjunction with the provincial and federal governments (Gov. of NL, 1997). The Gander River license was proposed as a required permit for anyone who fished on the Gander, and these river specific licenses were sold on the Gander River for one year (GRMA, 2003; Pers. Comm., GBIBC). The license fee, which would be transferred to GRMA directly, was to be $10, and provided GRMA with a better sense of how many fish would come out of the river. It also provided people who enjoyed salmon fishing the opportunity to catch a few extra fish in a season. To illustrate:

> Say for example that you're allowed to take ten fish out of a system, [the limit for a schedule 1 river is] six right now, just say everybody came to the Gander River and took six fish, that's a lot of fish coming out of one watershed. But by having a river-specific license, [GRMA] could limit the amount of licenses that were sold...the amount of tags we'd give out. Okay well [GRMA] thinks that four tags is enough or now the river can handle eight fish maybe, and it gave anybody that wants to catch more fish an opportunity to catch... you could catch six for example in all the other rivers, watersheds around the province then they could come to the Gander to catch [four] more (Pers. Comm., GRMA 1).

Likewise, if a person only wanted to fish on the Gander, they would not be required to purchase a provincial license, only the Gander River-specific license. Additionally, if one wanted to fill their six tags in another river, or combination of other rivers, then they could take an additional number of fish from the Gander River provided they had the river-specific license. It was an additional cost, but it provided people with the opportunity to catch more salmon, above and beyond the general provincial quota.

While developing the concept of a river license on the Gander River, GRMA estimated that the provincial government was selling thirty thousand salmon licenses annually, with rough estimates of anglers well into to the hundreds on the Gander River alone (Pers. Comm., GBIBC).

By the late 1990s, the provincial government was charging $20 a license, which amounted to $600,000 annually of generated income for the province through salmon licenses (Pers. Comm., GBIBC). As one participant stated:

> We thought, what if we could get even $10 000 of that per year? So, we thought how about a specific license? If you were only going to fish the Gander River, then a Gander River license is all that you would need. The province no doubt felt conflicted in giving this the go ahead, but we had some clout... We did it for one year, but then it got squashed (Pers. Comm., GBIBC).

GRMA proposed and successfully developed a funding strategy that is unique among community-based natural resource management groups in Canada (Graham *et al.*, 2006). While multiple interview participants described the river-specific licenses as providing a greater assurance of the organization's sustainability into the future, the licenses were ultimately cancelled after a one-year trial period. Despite the promise the Gander River licenses held for the maintaining local involvement in river management, the program was cancelled due to the political backlash, based largely on misinformation to the public (Pers. Comm., IBRD). There was concern voiced by some members of the public, and strongly promoted by the politically powerful Newfoundland and Labrador Wildlife Federation (NLWF) based in St. John's,[32] that GRMA's development of the river-specific license was a move by GRMA, and the provincial government, towards resource privatization (McGrath, 1997; Bouzan, n.d.). While this was not the case from the perspective of those on GRMA, nor was there any movement or desire to alter

[32] NLWF reports having approximately 20 000 members (Samson, n.d.).

the public access rights as defined in the provincial *Lands Act* (1991),[33] the provincial government withdrew their support from the program (Pers. Comm., BUS 1).

How should we interpret the cancellation of the Gander River licenses in the context of place-based development approaches? There are two possible explanations. First, it could be argued that one of the main reasons for the failure of the river-specific license was that GRMA did not do an adequate job when it came to engaging with the public. Public participation is an important indicator of the place-based development framework. In the case of a local resource governance group such as GRMA, the public must be adequately informed, and arguably engaged with the development process in order for local governance to be effectively achieved. In other words, local leadership needs to have the capacity to engage with and mobilize residents' development and resource-related concerns. It might have been the case, that if adequately consulted, it would have been clear that the 'public at large' did not approve of what was being done on the river, and were suspect of GRMA's underlying motives in creating the river license.

Public participation with planning and development is worthy of discussion here because the degree of overall public 'buy-in' of CWM was key to GRMA's success, but also of its failure. As stated previously, GRMA involved the public in their management and planning decisions in a number of ways, although the main forum was public meetings. When done properly, the literature suggests that engaging the public at such meetings provide a number of obvious benefits: a greater representation of local voice, greater public buy-in and support because people feel a greater sense of being included in decision making, and increasing the potential pool of local volunteers for the organization to achieve its objectives (e.g. Cohen & Uphoff, 1997;

[33] Which outlines the public right to access inland (or marine) waterways within a 10 metre buffer of the high water mark and excludes private ownership of this area

Uphoff, 1998; Roseland, 2000; Beierle & Cayford, 2002). However, it was not unanimous among interview participants that the public living in the watershed area were well informed of the projects GRMA was rolling out. In particular, the organization's finances -primarily public funds- were not clearly laid out (Pers. Comm., AFG 3). This created suspicion among local residents especially as to where the money from the licensing was going because various proposed development projects, such as a walking trail system around the Salmon Brook area, were not being pursued as GRMA suggested they would. There was also a sentiment expressed by some that the public meetings, whether they were conducted for DFO business or that of GRMA, were more of an information-delivery platform than a genuine discussion of planning options, which presents a major issue within place-based development. Despite these concerns, the majority of interview participants suggest that GRMA's public relations in the watershed area were well developed; during the development of the river-specific licenses there were public meetings held in Gander Bay, Glenwood and Gander, which was considered a valid effort on the part of GRMA from their perspective (Pers. Comm., GRMA 1; IBRD). Additionally, the issue of public backlash largely came from sources outside of the area, particularly by the NLWF; however, a lack of cohesion within the communities in the watershed certainly further exacerbated the externally-driven objection to the river-specific licenses for GRMA.

While public participation is deemed fundamental to successful place-based development, it is sometimes difficult to define what constitutes the 'public'. I am hesitant to equate GRMA as entirely representative of "local" interests, values and perspectives, whether they are perspectives from Aboriginal, female, youth, elderly or people with disabilities. GRMA did nonetheless act as an organization with a diverse set of members who lived in and are concerned for the Gander River watershed. As described above, it also made valid attempts to engage with the public

regarding their general operations and specific management objectives, thus it appears that the public, as they saw it, had the opportunity to be involved in discussion with the GRMA board, or to become a member of the group. This leads me to my second point: the failure of the Gander River licenses was not due to GRMA ignoring the public, either intentionally or otherwise. Instead, resource management groups operating on a watershed scale cannot be expected to represent all of the public in the province, because their 'jurisdiction' is significantly smaller than that of the provincial government. This situation points to a larger issue in grappling with multi-level governance. In GRMA's case, it required the support of the provincial government to provide legitimacy to the river-specific license, and while the two groups maintained a cooperative relationship after the provincial government withdrew support and ceased the river specific licenses, the decision making power was still weighted highly towards the province.

Collaborative multi-level governance as a concept compliments the priorities of place-based development. The 'social' elements required in successful place-based development, including: community participation in planning, community cohesion, equity within the community, existence of community-based associations are key components of local governance, which are arguably required for successful multi-level governance arrangements as well (Gibson, 2011). However, after the licensing issue, a representative of the provincial government suggested that the main reason for the province's withdrawal of support was that the governance structures were not transparent enough in the community-based watershed groups (Pers. Comm., DNR). This rationale is largely unsubstantiated given that GRMA had elected board members and regular public meetings pertaining to issues emerging on the river. Although the board members were initially appointed by a regional planner, they were subsequently elected at public annual general meetings (GRMA, 2003). Moreover there was a list of members, who paid annual fees as

members, which stood as GRMA's constituents. The organization maintained continuous communication with the public through a newsletter and promotional materials, and maintained regular contact with provincial and federal officials involved in governing the watershed area. Thus, while it is crucial to have well established local governance structures in place, such as those advocated by proponents of place-based development, it is clear that local governance suffers greatly if there is only limited support (especially in the form of political legitimacy) and sharing of power by senior levels of government. Indeed, according to Vodden's (2009) definition that "governance reflects a sharing of power and broadening of the policy sphere to include networks of government, private sector, and civil society actors" (pg. 260) a lack of commitment and 'power sharing' on the part of senior government, largely precludes genuine local resource governance on the Gander River.

GRMA represents a good example of how locally based organisations begin to make claims for local governance. In this way, it fits the priorities identified in place-based development for local control and management of natural resources. In many ways, GRMA was very successful in the support that it generated and in the innovative resource management approaches it proposed. Despite this, the organisation failed because it was unable to secure the support of higher levels of government. It met the conditions for local governance, as highlighted in place-based development approaches, but it nonetheless failed to become a sustainable local institution for governance. In concluding this section, it is clear that local participation and leadership, alone, are insufficient in ensuring long term local governance arrangements.

3.2.2 Community-based environmental management and the reed bed effluent treatment system

My second example of a place-based asset in the Gander River region is an alternative sewage treatment facility developed through the towns of Glenwood and Appleton. The introduction of a reed effluent treatment system indicates a strong commitment by residents and local councils in Appleton and Glenwood to preserving the integrity of the Gander River. In 2006, the two municipalities commissioned the development of the Glenwood- Appleton Wastewater Treatment Facility, a reed bed effluent treatment system, which was designed and constructed by Abydoz Environmental Ltd., a Canadian partner of Oceans ESU Limited[34] (Oceans ESU, n.d.) (Figures 3.1, 3.2, 3.3). The beds are located north of Glenwood, adjacent to the north-west bank of the main stem, approximately 100 metres downstream from Salmon Brook. The reed bed system acts to filter out solid waste and sewage effluent through a series of reed beds, and provides a low maintenance and environmentally sound alternative to traditional sewage treatment systems (Oceans ESU, n.d.). The resulting effluent which flows from the system- and into the river- has been filtered and tests indicate the water quality is above federal standards. Analysis conducted by Abydoz,[35] indicates that the biochemical oxygen demand (BOD), that is, the amount of oxygen consumed by the microorganisms responsible in breaking down the waste in effluent (EPA, 2012) was reduced by 94%, from 141 mg/L to 8 mg/L (Abydoz, 2014). Total suspended solids (TSS), which refer to particles of matter suspended in waste water (Metro Vancouver, 2014), in the effluent were reduced by 99%, from 1,660 mg/L reduced to 5 mg/L (Abydoz, 2014). The federal guidelines for municipally treated water where effluent is flowing into a river system are 20 mg/L for BOD and 20 mg/L TSS (Environment Canada, 2000).

[34] Oceans ESU Ltd. is an environmental-technology consultancy group, which has conducted and supported international projects

[35] Based on an average of the first two years of operation

Furthermore, there is consensus among river users who participated in this research that treated waste water flowing into the river currently is a vast improvement over what was there before. So, how is the example illustrative of place-based development?

Figure 3.1 Glenwood- Appleton Wastewater Treatment Facility headworks, site of primary treatment (Photo credit: J. Daniels)

Figure 3.2 Reed beds, site of secondary and tertiary (Photo credit: J. Daniels)

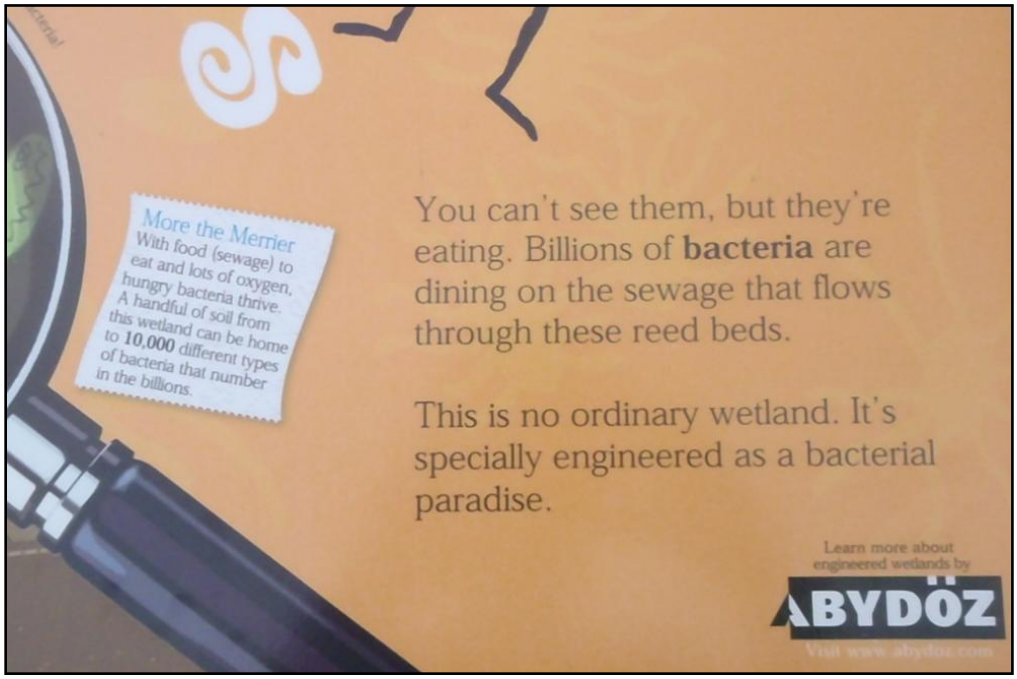

Figure 3.3 Promotional material displayed on a walkway outside of the reed bed system (Photo credit: J. Daniels)

The reed bed system is an example of place-based development in that it reflects a place-based ethos. It represents an example of a locally based infrastructure aimed at protecting the Gander River, arguably one of the region's most precious assets. The local commitment to the Gander River was critical in the support of the reed-bed system, because while this system offers superior environmental protection as far as treating waste water effluent compared to traditional sewage system treatment systems, it has been stated there is often resistance from the province in providing support to those infrastructure systems that deviate from the traditional infrastructure (Pers. Comm., IBRD, MPL). It took extensive lobbying efforts on the part of the two towns (Glenwood and Appleton) and the local MHA at the time, Sandra Kelly, to gain the support of provincial department of Municipal and Intergovernmental Affairs (MIGA)[36] (Gov. of NL, 2002; Pers. Comm., MPL). The total cost of the project was an estimated six million dollars, with 85 percent of the funding through the federal and provincial government's Canada – Newfoundland and Labrador Municipal Rural Infrastructure Fund (MRIF), or the "green fund", and the remaining 15 percent was paid for by towns of Appleton and Glenwood (Molloy, 2010; Pers. Comm., MPL). As a result, each household in Glenwood and Appleton had to contribute an additional $100 yearly to support this system (Pers. Comm., IBRD). Ultimately, local buy-in and municipal support for the reed bed system is a key component of place-based development in this instance, because it illustrates there is a shared recognition of the importance of the river water quality and a collective willingness to protect it.

The reed bed system reflects the commitment of local communities to the sustainability of the Gander River. At the same time, it serves as an example of a highly innovative environmental

[36] The provincial body responsible in funding infrastructure projects such as wastewater treatment

infrastructure system. The system, and especially the local efforts in ensuring its development, has been highly praised by provincial and federal organizations. In 2008, Appleton and Glenwood were awarded the Provincial Environment Award from DOEC, and in 2010 the towns received an Environmental Award from the Professional Engineers and Geoscientists Newfoundland and Labrador (PEGNL) in recognition for the application of science, technology and engineering for environmental management and the Federation of Canadian Municipalities (FCM) Award for Leadership in Storm Water and Wastewater Management in Atlantic Canada (Fitzpatrick, 2010; Abydoz, 2012). The Glenwood-Appleton Wastewater Treatment Facility exemplifies innovative environmental management in the province. Significantly for this discussion, the sustained efforts made by local communities in developing the reed bed system are in line with place-based development principles.

3.2.3 Community cohesion between local resource groups and residents

Community cohesion and the opposing processes of exclusion and segregation are recognized as important concepts within place-based development. The presence of open, respectful and reciprocating relationships at the level of the community has obvious importance in terms of inclusiveness in development and natural resource management decision-making. This in turn supports the priority for public participation in planning. As discussed earlier, GRMA was committed to creating an inclusive planning environment on the river in a number of ways, and the key to this inclusivity rested on the relationship between this organization and other residents in the area. In the Canadian planning and policy context, community cohesion is synonymous with the term social cohesion (Toye, 2007), which some authors cite as an indicator of place attachment and identity (Beauvais & Jensen, 2002). In this context, community cohesion has arisen in response to problems associated with a lack of social and economic equality, increased

social segregation and limited participation in civic life (Toye, 2007). Furthermore, place-based development and other compatible approaches often seek to build cohesion – while acknowledging and respecting difference in the development process (e.g. Green & Haines, 2012). In this section, I will explore the extent to which the relationships around resource governance have fostered a sense of community cohesion on the Gander River, as this asset has great potential in strengthening place-based development.

The ongoing relationships between the Aboriginal Fishery Guardians (AFGs) and other resource-based groups serves as an important encounter to discuss the concept of community cohesion on the Gander River. An area of significant importance in this research is the quality of relationships between Mi'kmaq and non-Aboriginal groups in decision making around the Gander River watershed region, which, as stated in Chapter 1, is a *contact zone* in which to explore resource politics. These relationships reveal a complex history, including: pre-settlement "resource" exploration, generations of river guiding, European settlement and industry, denial of legal Aboriginal recognition, and "integration" of Aboriginal and non-Aboriginal society to the present day. Despite the rich network of actors who have featured in this history, the focus in this discussion will be the current and past relationship between the AFGs and other groups involved in wildlife and fishery conservation and enforcement. The justification for this choice is that these resource groups have been intimately involved in working on and making decisions around the Gander River.

In 1992, through the federal Aboriginal Fisheries Strategy (AFS) – funded and directed through DFO – FNI established the Aboriginal Fishery Guardian Program in Newfoundland and Labrador. The Aboriginal Guardian Program has initiatives concerning a number of river systems throughout the province that follow conservation and fisheries enforcement regulations

set through DFO, and has employed many Mi'kmaw individuals on the Gander River since its inception in the early 1990s (Pers. Comm., GBIBC). In addition to fisheries enforcement, the AFGs are also responsible for habitat assessment. The AFGs have overlapped in roles with contract fishery guardians, who are employed by the provincial government, via a private security firm, to do inland fishery enforcement. Each group have a common goal of protecting the Gander River by discouraging salmon poaching and other activities that may cause harm to the river.

Since the beginning of the program, the AFGs have been working in tandem with contract guardians. As stated, the contract guardians are hired through a private security firm, which in recent years has been Shannahan's Investigation & Security Ltd., by the Department of Justice. The Department Justice is the provincial department that enforces the fishing regulations set by DFO, and subsequently lays charges on those individuals in violation to these regulations (Pers. Comm., GRMA 3, CG). The contract guardians have monitored the Gander River for over four decades (Pers. Comm. CG).[37] According to one AFG, there is a better working relationship between the non-Aboriginal contract guardians and the Aboriginal Guardians on the island, compared to elsewhere in the country and there is conflict between Aboriginal and non-Aboriginal guardian groups in other parts of Canada that does not exist here (Pers. Comm., AFG 3). During their AFS training in Nova Scotia, this individual found that "they don't work so closely together as we do. It's like one don't trust the other. Out on the island here it's a very close relationship between AFGs and the contract guardians" (Pers. Comm., AFG 3).

[37] However, the first government "fishery wardens" were appointed in 1871, and the process of monitoring rivers and acting in a fishery enforcement capacity has undergone a number of changes since that time (Hustins, 2010).

The relationship between the AFGs and the provincial and federal governments varies, although interactions between actors at a local level tend to be positive. One participant stated that a positive and communicative relationship exists between the DFO and Forestry (DNR) and Wildlife and Conservation (DOEC) field officers and the AFGs but this was not something that occurred instantly; rather, it took a number of years working together to develop (Pers. Comm., AFG 1). While the AFG program is largely mandated through DFO, numerous respondents suggested that there was little interaction between AFGs and senior ranking federal officials on the whole. However, the AFGs and provincial field employees, namely from Forestry and Wildlife and Conservation, will regularly meet at the DFO counting station on Salmon Brook to converse and informally discuss what is happening on the river and brooks. This station represents a key point of contact for informal discussion between these organizations, which in addition to the social atmosphere itself, is mutually beneficial because all of these individuals are familiar with the region, and can assist each other in discussing changes in the watershed and areas that need further attention. These discussions are useful in helping individuals, whether an AFG or a provincial employee, in achieving the broader goals of resource management and illustrates a fairly amicable relationship between Aboriginal and non-Aboriginal players at the local scale.

However, the relationship between the AFGs and other river-based organizations has not been wholly positive. It has taken many years to develop amicable working relationships between various watershed groups, particularly those who work in the field. Yet this positive relationship is undermined by the jurisdictional separation between the federal and provincial resource-based departments and either the contract or Aboriginal Guardians. For example, the AFGs are mandated through the Aboriginal Fishery Strategy, and are therefore directly accountable to

DFO and are required to conduct DFO sanctioned management activities on the river. In terms of local autonomy, the AFGs in Glenwood and Gander Bay have little decision making power on how to manage the river. Despite the recognized need for greater enforcement patrols on the Gander River, the AFGs have limited capacity to undertake enforcement activities as per AFS policy, which creates tension among AFGs and other groups who see this as a wasted resource. [38] Likewise, their employment as AFGs with DFO has been described as tenuous, as they are subject to annual AFS funding, thus, long term employment in the future is not a guarantee (Pers. Comm., AFG 1). This lack of integration between watershed related organizations at local, provincial and federal levels, with overlapping jurisdictions, is highly frustrating in terms of accountability and efficiency, reducing the effectiveness of watershed governance in the province and threatening community cohesion where these players interact at the local level (Pers. Comm., DNR). Despite these concerns, the AFGs play an important role in the watershed community through their physical presence on the river. With their activities ranging from deterring people from poaching to picking up refuse in the river and along the banks (Figure 3.4).

[38] This need is recognized by over a dozen of the interview respondents, including members of the AFGs and former members of GRMA as residents, provincial and federal representatives. It is also reflected in the general direction of the Inland Fish Enforcement Program, enforced through the Department of Justice, which was set up by then-Premier Danny Williams in 2004 (Gov. of NL, 2004)

Figure 3.4 An Aboriginal Fishery Guardian displays garbage dumped along the Gander River (Photo credit: J. Daniels)

Another factor creating tension between Mi'kmaw and non-Aboriginal watershed groups in the area revolves around the issue of Indigenous identity, in particular Aboriginal rights. The key question here is: what rights do the Mi'kmaq of Newfoundland have to river and forest resources? This issue came to a head in the spring of 1995 when Tony John and his cousin Jim John staged a protest by throwing a fishing net across the Gander River in direct violation of legislation for a Schedule 1 river (DFO, 2014a), in order to argue for their right to the Aboriginal Food Fishery. This action aggressively polarized the ostensibly "integrated" (Pers. Comm. IBRD) communities of Glenwood and Appleton into two groups. On the one hand, there were those who supported Aboriginal resource rights to resources like salmon. On the other hand, there were many who denied the existence of any *authentic* Aboriginals in the area. The courts rejected the claim on the basis of a lack of evidence of Mi'kmaw pre-European-contact use of the Gander River. As discussed in Chapter 1, while the Qalipu Mi'kmaq people were granted status

in 2011, the issue of resource rights remains unresolved within the landless Band arrangement, at least for some Mi'kmaq people residing along the Gander. Likewise, the issue of entitlement does remain a problem in the management of the river, if not on an administrative level, at least on a deeply personal one. The situation after nearly 20 years is that while many Mi'kmaw individuals on the river are not engaged in the same degree of political contest, that is, they are not actively pursuing an Aboriginal Food Fishery on the Gander River, they still see the collection of salmon for food as an important part of their culture and personal wellbeing.

Working from the definition of community that encompasses a physical setting where social organizations and institutions facilitate interaction among residents and these interactions include matters of shared common interest (Wilkinson, 1991), the idea of complete cohesion and homogeneity as a delineating feature of community is highly suspect (e.g. Agrawal and Gibson, 1999; Tuan, 2002). In fact, some would argue that acknowledging diversity, while pursuing community cohesion is an aim of place-based development and other community development models (e.g. Toye, 2007; Reimer & Markey, 2008; Paasi, 2009). As described above, the different organizations, particularly Mi'kmaw and non-Aboriginal resource-based groups, as well as Mi'kmaw and non-Aborginal individuals typically demonstrate high levels of cohesion when it comes to monitoring and protecting the river. This level of cohesion is an important place-based asset in the region because, similarly to both the reed-bed system and GRMA, it serves to protect the river, which in turn, is an important part of people's identity. However, it is evident that the Gander River, as a *contact zone*, contains people with different cultural backgrounds, perspectives, and identities as well as different ways of constituting the river. This makes the work of describing integration difficult and also points to instances of exclusion of those outside of the cohesive group, which, in this case, are those who *manage* the river. For this

reason, the extent to which community cohesion exists on the Gander River is largely limited to those who seek to *manage* it in some way because alternative ideas and ways of interacting with the river are not readily incorporated into local resource governance or development arrangements (Pers. Comm., MBM 1; BUS 3).

3.2.4 Economic diversity and community economic development on the Gander River

Economic development is a key component of place-based development, indicators of which include the presence of: place-based branding, economic diversity, the informal economy; quality of transportation networks; economic and physical infrastructure; and health of local business sectors, among others. Within in this section I will address two types of economic development that occur in the Gander River region: local economic development (LED) and community economic development (CED), both of which mobilize economic and social assets on the Gander River in different ways. It is important to distinguish between these two forms of economic development because, while they both occur in places, they have different underlying motivations and often different outcomes (Markey *et al*., 2005). LED can be described as a process where local governments and community-based organizations are engaged in business ventures and activities that stimulate the local economy, through employment and/or in providing spinoff economic benefits (Blakely & Bradshaw, 2002). CED is a more inclusive term, characterized by a greater participatory and "bottom-up" action, which can include the activities described in LED, but also considers elements of social development, such as volunteerism, and environmental stewardship (Haughton, 2002). Ross and McRobie (1989) suggest CED involves communities generating their own solutions to their economic problems, while building long-term community capacity in the process. Additionally, CED stresses the importance of local business ownership and entrepreneurship and recognizes informal economic activities including:

non-monetary subsistence activities, bartering and the volunteer sector, in this case, which promotes and enhances both market and non-market oriented economic development for (a broad range of) rural communities. Overall, CED is more consistent with place-based development ideals, including the performance of *alternative economies*, which on the Gander River often take the form of informal and subsistence-based economic activities. In this section, I demonstrate that while there have been stronger LED strategies in the past, CED on the Gander River watershed, particularly in the form of subsistence, self-provisioning and other informal economic activities, is currently the more prevalent. From a place-based development perspective, CED is important on the Gander River region because CED activities involve the collective provision of food, fire wood and occasionally extra money, and CED also reflects the social and cultural relevance of people's connection to the river as a place. These activities are also consistent with the emphasis within place-based development about the significance of places and their assets.

The watershed region, especially the Glenwood area, where the main stem of the Gander River meets Gander Lake, experienced dramatic changes in the late nineteenth century with the arrival of the trans-Newfoundland railway. The railway allowed greater access for European settlement and development, including the creation of major logging and sawmilling operations in the surrounding area. At this time and throughout the early 20th century, many men- and they were predominantly men- both Mi'kmaq and non-Aboriginal, from Glenwood, Gander Bay and Miawpukek were employed in the logging industry (Anger, 1983). The development of more 'efficient' technologies in forest harvesting in the last four decades has meant that there is much less employment in the forestry industry than before and local resource-based work shifted to mining and larger-scale timber harvests for the pulp and paper industry.

There is also an extensive history of guiding on the rivers of Newfoundland and Labrador. Written records often appear in explorers' journals: William Epps Cormack who explored the region in the 1820s had a Mi'kmaw guide, Sylvester Joe, with whom he travelled the island's interior, particularly around the river systems draining into Notre Dame Bay (Millais, 1907). Throughout the 20th century, guiding served as a vital means of seasonal employment for Mi'kmaw and non-Aboriginal men who lived in the region and these guides either worked privately or, more frequently, worked for lodge owners on the river. By the late 1930s and 1940s, the Gander River became internationally recognized as a major destination for salmon angling and large game hunting (Figure 3.5a and 3.5b).

a

b

Figure 3.5 a. "The Detroit News Pictorial," June 1949; and b. Large game hunting advertisement by the Newfoundland Information Bureau, circa 1930s (Retrieved from PANL)

Between the late 1930s and the 1950s, the Gander River achieved an international reputation as a sporting paradise, and along with it came major tourism opportunities for the region. These

developments also shaped the recreational Atlantic salmon fishery for decades to come. In the 1940s, the river was branded "the Mighty Gander", or simply "the Gander", and the mass arrival of hunters and anglers from Canada and United States (and further afield) led to the construction and operation of outfitting lodges along the river, which in turn increased the demand for experienced guides (Pers. Comm., BUS 3; RES 2). "The Mighty Gander" slogan has appeared in advertisements and promotional brochures produced by GRMA and commercial lodge owners along the river. The Gander River 'brand' has been further reinforced through high profile visitors. According to one research participant, "the Gander River is a very famous river, kings and queens have fished there, and presidents like George Bush have fished there. It is it famous River, you know, it goes back... It's historically renowned. In its heyday, people came and spent huge amounts money down there" (Pers. Comm., IBRD). Integral to the river's reputation is the high quality of salmon angling and large game hunting, activities that were supported by local guides. The guides are crucial to the Gander River experience for the hunting guests, who are locally known as "sports" (Pers. Comm., RES 2). In combination with these assets, the Gander River brand has served the watershed communities very well in terms of locally-generated revenue. In terms of ownership of the lodges, the situation is more complicated. Many lodge owners, especially those owning private/corporate lodges, live outside of the watershed area, the Gander River 'brand' in terms of a sport paradise falls more closely in line with LED as opposed to CED. In other words, LED activities have clear benefits to some local people, but the ownership of the lodges raises questions about asset mobilization in the sense that this kind of economic development is not necessarily mobilized by locals.

The Gander International Airport had a critical role in establishing the popularity of the Gander River as an international destination for sport fishing. The airport, which to this day is still a

major employer in the region, was first constructed in 1936 and was fully operational by 1938 (GIAA, 2005). It served as a base for the Canadian military during the Second World War and was strategically important for both military and civilian aviation because of its location and hence ability to act as a midpoint refueling station for trans-Atlantic flights (GIAA, 2005). By the 1950s the Gander Airport was described as one of the busiest international airports in the world (GIAA, 2005), and given its close proximity to the head of the Gander River, the river received a great deal of traffic from international sport fishers and game hunters. After the development of the airport, subsequent development on the river included a dramatic increase of built infrastructure on the banks of the river where fishing camps were built to accommodate the sport-fishing tourists, whereas prior to this tourist 'boom', only a few cabins were spotted along the river and deeper in the woods. These camps and fishing lodges became prominent features of the more accessible portions of the river and required staff, namely guides and cooks (Saunders, 1986).

Prior to the 1990s, the river was a significant base of employment in the region, with an estimated 130 seasonal positions every year (Pers. Comm., IBRD). The early 1990s was, however, a period of dire economic times in rural Newfoundland and Labrador, and employment on the river was down to approximately 60 individuals due to the deteriorating quality of the river system, especially the Atlantic salmon stock (Pers. Comm., IBRD). According to one participant:

> these were seasonal jobs, [and] a lot of people might say they're not all that important, but in this economy they're very important. They provide [employment insurance] for families to support themselves, and winter time in Gander Bay, where there's very little economic opportunity. So they're very important regardless of whether they're seasonal or not (Pers. Comm., IBRD).

Currently, there is even less seasonal employment in terms of guiding on the Gander River, despite the improvement of the salmon stock over the last 20 years. This has been attributed to a number of factors. The decreased operation of commercially operating lodges, and a shift towards private-corporate lodges over the last 30 years, represents a shift in local entrepreneurs' interest and ability to operate fishing and hunting lodges. "Hook and bullet" tourism has declined nationally in recent years (Pers. Comm., BUS 1; BUS 3) thus there has been a decrease in sport tourists, particularly American tourist traffic, coming into Gander Airport (Pers. Comm., GBIBC). A couple of former lodge owners also indicated that it was difficult to operate 'above-board' businesses, when there are a number of local cabin owners taking in guests under-the-table. At the same time, there are fewer young people getting into the guiding industry. Guiding in insular Newfoundland represents a very short season of employment, from 16 to as few as 8 weeks of work per year and job opportunities in Long Harbour, offshore, Labrador, and western Canada are typically seen as more fruitful employment for young people and people with families.

Interviewees suggest that one explanation for outmigration, in particular, young people leaving a community for work elsewhere, is a movement away from the entrepreneurial ventures in the watershed region during the mid 20th century.[39] To some extent, outmigration also signifies that people's commitment to place has been undermined by macro-economic forces outside of their control. While this latter situation is certainly prevalent in rural communities across the country (e.g. Markey, 2010), the notion that this is a wholly recent phenomenon is challenged by the fact

[39] Although operating lodges on the river and guiding, at least that which took place in the 1950s would not have considered itself as place-based development. Retrospectively, these activities did require the mobilization of local actors (both business owners and employees) in addition to being place-specific in the sense that the river was a key part of their existence, in which case such activities are a form of LED.

that consistent and fulltime employment in the Gander River region has always been difficult, with generations of men engaging in a mobile workforce in order for their families to stay in the region (Pers. Comm., MBM 2). Whatever the reason, from a place-based development perspective, outmigration results in a potential decrease of social and human assets in a region. On the Gander River, the movement away from local entrepreneurialism and business ownership is reflected in a shift from former tourist-based lodges to private ones as well as the effect of 'outsider' ownership of these lodges. An additional reason for decreased participation in river-based employment is that younger people growing up in the area no longer feel a strong connection to working on the river (Pers. Comm., BUS 1). The shift away from river-based employment has also been influenced by increased access to transportation networks, including the Gander Airport, which has made it easier for people to work away from home in higher paying resource-based employment opportunities within the province and elsewhere in Canada (Pers. Comm., LSD).[40] This issue points to a tension within the place-based framework, which is how the concept of place is mobilized in place-based development. For example, while most of the business owners and employees in the river tourism industry during the 1950s were from the region, and there were certainly economic spinoffs that benefited the communities of Glenwood, Appleton and Gander Bay (Pers. Comm., GMFN; BUS 2), how 'local' is a business when it relies on tourists from far away (e.g. Massey, 2004)?

[40] As previously stated, this is by no means a recent phenomenon, spawned by the booming Alberta tar sands and other oil and gas opportunities nationally and internationally. There is documentation of individuals and families with migrant worker 'heads' in Gander Bay and Glenwood, who commuted on a seasonal and yearly basis for work across the island, Labrador and overseas from the early part of the 20th century (Saunders, 1986; Pers. Comm., MBM 2). The biggest change over the years has been the increased frequency and relative ease in returning back home.

Economic diversity is fairly limited in the Gander River watershed. Similar to many regions in rural Newfoundland and Labrador, the area has long depended on resource-based industries. Historically, there was greater employment in logging and pulp-and-paper mills as well as the commercial salmon fishery in Gander Bay, although there is currently full-time employment through the Beaver Brook Antimony Mine, located near the North West Gander. As of 1940s, there more diverse economic opportunities emerged with the opening of Gander International Airport and the subsequent development of Gander as the regional service centre for Bonavista North. However, with Gander as the current service centre, in combination with the decommissioning of the Newfoundland Railway, there has been a significant decline in the number of locally owned and operated businesses in Glenwood and Gander Bay (Pers. Comm., GMFN). As stated earlier, many tourist-based lodges have closed down, those left in operation are corporately owned with almost exclusive 'outside' ownership, from St. John's and elsewhere on the island – all of which would suggest that the health of the local businesses is poor, compared to their historic successes. Under these circumstances, the place-based development model might suggest planning around alternative market-based ventures that build on those social and environmental assets present in the region. To date, Glenwood and Appleton have addressed economic development in their Integrated Community Sustainability Plans (ICSPs) predominantly through planning for increased residential development, thus increasing the municipal tax base, but also future development of initiatives including a marina park and recreational vehicle park development, public/private partnerships to develop a seniors complex and a service station in Appleton, located along the Trans-Canada Highway (Town of Glenwood, n.d.; Letto, 2011).[41]

[41] There were also two notable business attempts by Mi'kmaw leaders in Glenwood and Gander Bay. In the late

In terms of the informal economy, many individuals and families in this region have a strong connection to subsistence activities, which have taken place in the watershed as long as there has been permanent settlement. Salmon fishing, large game hunting, woodcutting and berry picking are traditions which held greater significance in terms of survival in years past, but still represent an important part of people's lives and their personal identity. In this way, subsistence activities are encoded into who they are and their connection to the place in which they live. While some interview participants described subsistence economic activities as "non-essential" from a strictly economic perspective, none were willing to say they would forgo participation in fishing, hunting, gathering if given a choice. However, in the place-based development model, defining such CED activities as 'non-essential' would be missing their larger point- that is, the value of non-market economies to the well being of communities- of places. In this case, the economic and the social-cultural cannot be separated into discrete categories as is often attempted in traditional regional economic development models.

The link between personal identity and economic activities on the Gander are not restricted to informal and subsistence activities. Guiding was, for example, much more than simply a source of local employment. Historically, because there was no vehicular access to salmon pools along the length of the river, guides were considered necessary to traverse the Gander River, especially in a boat with a low hanging propeller. As such, learning the river run – that is, the route on the river that is clear of rocks – was a coveted skill, and experienced, skillful guides were essential

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1970s, the GBIBC, then referred to as the Clarke's Head Native Council, operated Gander Bay Woodcrafts, which specialized in building Gander River boats (Le Messurier, 1983; Pers. Comm., GBIBC). By the early 1980s Gander Bay Woodcrafts started to branch into house construction as well as boat building, but eventually ceasing operation in 1993. In 2000, there was a brief operation of Jim John Adventures, a fishing lodge that offered in eco-based tourism opportunities with Aboriginal content (GRMA, n.d.). The lodge is located on the Gander River, on Fourth Pond, near Glenwood, and has since been sold to a private owner.

for the sports' trip experience. Even today, guiding is more than simply a source of local employment, because the practices of navigating the river have deeply personal meanings to those who practice them.[42] And these practices are inherently social and economic in nature. The separation of guiding, hunting, wood harvesting and other subsistence economies from their significance to people's life history create a tension around what I refer to as the resource politics on the Gander River. Guiding and subsistence economic activities, such as the self-provision of food and wood, are also the main examples of CED and alternative economies collectively demonstrated by people in the Gander River watershed and serve as examples of the mobilization of place-based assets. Furthermore, these activities have a long history of Mi'kmaw and non-Aboriginal participation.

As demonstrated throughout this section, the place-based development framework attempts to integrate economic, social, and environmental considerations for local and sustainable development. However, the emphasis on the integration of these various factors tends towards specific development outcomes tends to ignore tensions around resource politics. There is, for example, no shared sense of what *is* at stake on the Gander River, insomuch that there is not a singular 'resource identity' shared among various groups and individuals in the watershed area and on the river. This is not a matter of the river meaning different things to different people, although that is certainly a factor at play. The stakes are, instead, much higher: as I argue in the next chapter, there are ontological differences in what the river *is*.

[42] In 2007, Miawpukek First Nation developed the *Mi'kmaq Guide Training Handbook*, which is approximately 80 pages in length and outlines in detail various considerations and skills required in being a Mi'kmaw guide. It is meant to accompany a guide training course, and while there is interest expressed to utilize the handbook in training guides on the Gander River, this has not happened to date (Pers. Comm., GBIBC).

3.3 A sympathetic critique

Place-based development presents a significant set of ideas, concepts and practices that go beyond standard development approaches. The framework offers communities and community-based actors a way of taking control over development, promoting positive change in the face larger neoliberal economic and political forces (Reimer, 2006). The evidence presented here on the efforts by Gander River communities to develop the region, however, provide challenges to two key aspects of the place-based development framework. First, place-based development assumes that places have assets. Given the holistic and inclusive nature of this framework, I argue that place-based development assumes that *all* places have assets, that is, there is an inherent potentiality for all places to mobilize, or at the very least recognize, endowments which are naturally occurring in places. If this premise is not true, then there would be little to distinguish place-based development from needs- or deficiency-based models of development. However, in looking further into these 'assets', and comparing assets between places, it is evident that not all assets are of equal value for development. My second point is that some assets that cannot be mobilized. This is a troubling point for place-based development because it assumes that assets will be 'naturally' mobilized in a particular way, with particular capacities, without debate or conflict. In other words, the model does not appear to adequately address the politics involved in determining which assets are mobilized, and conversely, which are not. Ultimately, in assessing the question of what is good for the river – and by extension the river users – the place-based development framework has limits in terms of providing an alternative which can address difference outside of its modern-western origins (Escobar, 2008). These two key points will be considered in more detail in the following two sections.

3.3.1 Assets and their shadows

Cameron and Gibson (2008) argue that ABCD is a useful framework in helping realize that places (and people) are full of potential assets and strengths that have yet to be harnessed, rather than sites of problems for experts to solve. Assets in this framing are positive entities and ABCD speaks in terms of community strengths as opposed to shortcomings and needs. Despite the positive orientation of this approach it often leads to comparisons between and among communities and regions. These comparisons lead to the identification of places with more and fewer assets. A good example is Beckley et al.'s (2008) 'asset amoebas'. These amoebas show that some places have great potential for place based development while others have far less potential as they lack one or more forms of 'capital' (Figure 3.6).[43] These diagrams suggest that some communities and regions have the 'right' kind of assets to ensure the successful and sustainable development of the place in question. Thus, leading us to ask: what are the 'right' assets? Assuming there are some assets clearly more advantageous to development, then what exactly is the value of the 'wrong' assets?

[43] To be fair to their analysis, Beckley *et al.*'s (2008) capacity amoebas are limited in demonstrating the diversity of place assets, which may be, in part, due to authors making various assumptions about which assets should be assessed, but also practical issues such as limited data availability and accessibility, which preclude the presentation of other assets.

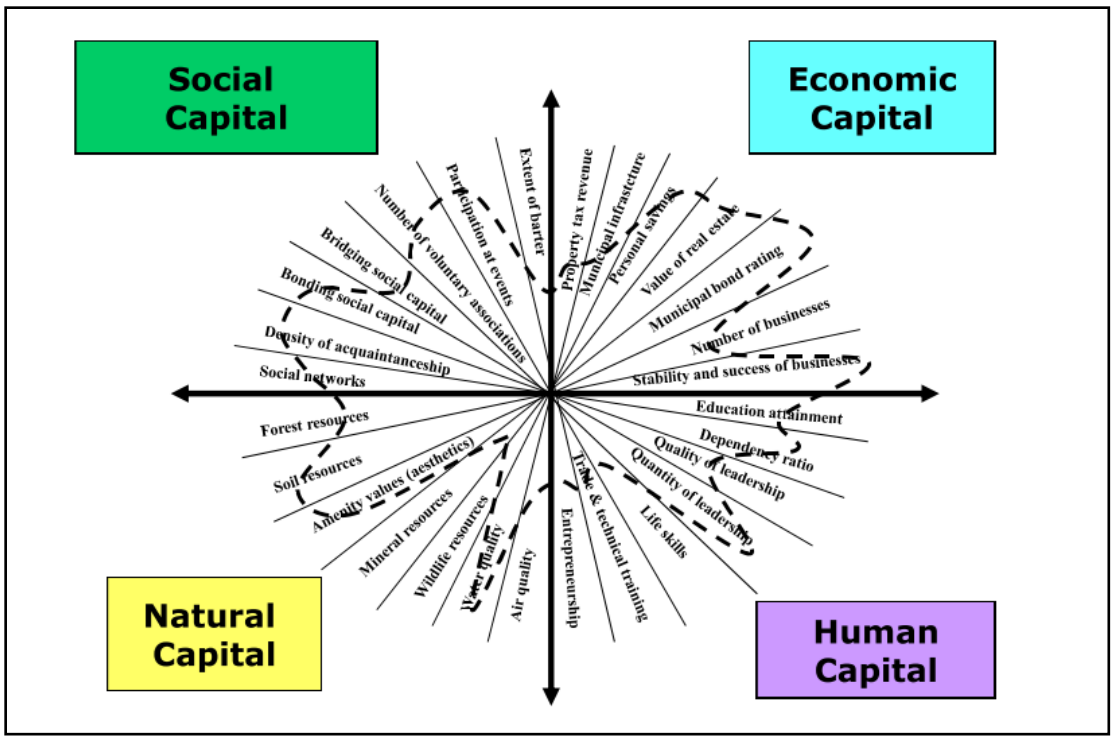

Figure 3.6 Berkley *et al's* (2008) asset amoeba

Equally troubling in place based development discourse is the use of terms like 'indigenous' (Pike *et al.*, 2006), 'inherent' and naturally occurring 'endowments' (Markey, 2010), which are used to describe assets. Within the framework assets are more holistically conceived than strictly economic terms. There are multiple types of assets derived from various capitals, i.e. natural, social, human, physical, economic (e.g. Roseland, 2000; Green and Haines, 2002; Markey *et al.*, 2005; Markey *et al.*, 2008; Reimer & Markey, 2008), which is certainly a better model in terms of inclusivity than needs-based and traditional sectoral approaches. However, the use of the aforementioned terms naturalizes the concept of assets, leading to the assumptions that these assets exist, anterior to socio-political renderings, and they belong to places.

If all places have assets, in one form of capital or another, then under the place-based development model wouldn't it be fair to suggest that all places have some modicum of

opportunity or potential opportunity of being developed? And if not developed, in the capital "D" sense of the word (Lawson, 2007), at minimum a place should be able to maintain a continued existence as a community, tied to a particular territory? Since many communities fail to develop, it is fairly easy to predict the consequences of not having the 'right kind' of assets. The problem for place-based development is that the 'right' assets emerge from a series of circumstances, contexts and practices, including: historical 'endowments' and legacies; 'environmental' conditions and changes; and dynamic socio-economic relations in the present, including market relations, cultural change, and the interconnections between/amongst 'places' (Massey, 2004; Escobar 2008). Without a broader application of the concept of place, it appears difficult for place-based development practice to handle places that do not have the 'right' assets. Moreover, the identification and subsequent utilization of assets are inherently political acts, and yet these politics are obscured through an assumption that assets belong to places.

The place-based development literature suggests that possessing the right kind of assets is a key component of community capacity, where 'successful' capacity is measured by the degree to which a community's assets are present and linked to meeting their needs (O'Leary, 2007) vis a vis achieving desirable outcomes (Reimer, 2006). The concept of capacity brings the issue of focusing on assets versus needs back full-circle. Despite the assertion that asset-based development starts out from a distinct starting point compared to needs-based development – by focusing on strengths and capacities instead of immediately problematizing an area – the question remains: if a community has all the 'right' assets, then it has the capacity to do what exactly? In treating assets as entities that exist independent of and largely prior to socio-political renderings, the connection between assets, which are purposeful constructions that present particular socio-natural elements of a community, and needs, which are often still defined by

institutions external to the community, are obscured (Escobar, 2008). It is not too far a stretch to argue that the quality assessment of any given asset is determined, at least in part, with its ability to satisfy a particular need. The idea that communities have needs is drawing on a logic that is highly reminiscent of traditional, run-of-the-mill needs focused development- suggesting that in some instances, place-based development is not a wholly distinctive alternative. Place-based development does provide an alternative in terms of its use of participatory and integrative governance and planning mechanisms, however the focus on assets reveals at least some influence of communities in need- and in many cases to things that are outside of local control.

3.3.2 The mobilization of assets

My second concern with place based development is the assumption that assets can, and should be, mobilized for development. Within the context of community-development practice, Reimer (2006) states that assets are utilized for development, otherwise they fall into a category of being under or unutilized. However, unutilized assets are still considered potential for community development.[44] It seems there is always potential, even if members of a community do not recognize, or do not have the capacity to utilize them, that assets can be mobilized for development. The advantage of this argument is that it contains a strong seed of hope for community resilience. Yet, caution needs to be taken when examining the extent to which assets can be mobilized, when they fail to become mobilized, and who they are mobilized by and for whom. In short, we need to be critical of what asset mobilization potentially means in terms of the politics affecting community and regional development. It appears that the degree to which an asset is mobilized is dependent on: 1) the quality of the asset, and how other assets interact

[44] In a way synonymous with latent energy.

with it in the development process; 2) how we define a particular asset in terms of how we imagine it might be used for development; and 3) the multi-scalar politics at play, intersecting at a particular site where local development takes immediate form.

Two examples can be illustrated from the Gander River. One asset I described in the previous section was the relatively high degree of local governance through the institutional strength of GRMA. Through its operation, GRMA was able to mobilize federal, provincial and local resources for the economic and social development of the Gander River as well as for environmental management. They developed key partnerships with governmental and non-governmental regional actors, and although it could be argued that the provincial and federal government acted more in terms of funding infrastructure as opposed to acting as genuine partners, the fact that there was enough trust from senior government to entertain the development of river specific salmon licensing speaks to the influence and capability that the GRMA board had as a locally-based organization. It was because of these relationships that GRMA was able to achieve considerable economic and social successes. One shining example is the extension of the fall fishery on the Gander River, which is still in place currently. As stated by one interviewee "the management plan that [GRMA] put in place for the Gander River, we developed it with the fall fishery… and it[has] been adapted by all the major rivers in Newfoundland and Labrador – including the Humber and the Exploits" (Pers. Comm., IBRD). The development of the fall fishery extended the length of time that anglers could go out on rivers, to retain salmon, but also to participate in catch and release. Thus, assessing local governance and institutional capacity vis a vis a well-developed community-associations with solid working relationships with policy-makers external to the region, GRMA appeared to exist with a functional network arrangement that closely mirrored the commonly accepted definition

of collaborative multi-level governance. GRMA stood as an important asset helping to mobilize assets socially, environmentally and economically from a place-based perspective- as recognized by the increasing relevance of collaborative, multi-level governance arrangements in Canadian rural and regional development (Gibson, 2011). Despite the quality of this particular arrangement of assets, multi-level governance did not succeed on the Gander River- not as far as GRMA is concerned.

As discussed in the previous section, one of the main reasons cited by interview respondents for the disbandment of GRMA was their inability to attain a greater degree of financial self-sufficiency as a community-based organization. GRMA's attempt to establish river-specific salmon licenses represented one of these efforts, which depended on support from both the public, in terms of 'local buy-in', and senior governments by way of political legitimacy. It is important to note here, that the proposition GMRA made through the licenses was essentially no different, structurally speaking, than the province issuing salmon licenses and receiving revenue from these. Thus, the major shift in GRMA implementing the licenses and collecting the subsequent revenue generated was the scale at which the river would be managed. Yet, as discussed above, the provincial government seemed to have little interest in a genuine power-sharing arrangement. Analytically, this could be explained by simply stating that collaborative and multi-level governance strategies cannot exist without some concession of power by senior government that involves more than simply downloading of responsibility to local organizations, as is so often the case. But here, I wish to unpack the one of the challenges to the *ideal* of multi-level governance, which is the inherent ambiguity in terms of what constitutes good governance at multiple scales of operation. This in turn, directly relates to the mobilization of assets.

Exploring how assets are mobilized for development on the Gander River reveals that the politics between different interest-groups, and the interdependence between rural and urban places, have profound implications on whether or not an asset can be developed (Woods, 2006; Wulfhorst, 2006; Masuda & Garvin, 2008). The NLWF's opposition to GRMA's initiation of the river-specific licenses illustrates an interesting issue around the concepts of local and multi-level governance. I use NLWF to epitomize opposition to the licenses because they were cited as one of the most vocal opponents at the time the time the licenses were being rolled out initially, and they voiced their concerns readily on the public airways (Pers. Comm., IBRD) and online, through their website. Their argument was that Newfoundlanders (and Labradorians) were being refused their right to fish, as a source of recreation, and were thereby being denied a part of their heritage. GRMA's justification for the license was that it would allow it to generate some extra funding to cover its operational costs of managing the river by charging a nominal fee.[45] The local license system would provide anglers the opportunity to catch and retain additional salmon province-wide should they desire to fish in other river systems. Through this process, the relationship between NLWF and GRMA provides an illustration of the rural-urban tensions that can arise in community-based resource governance and place-based development more broadly. It also provides an example of where understanding what constitutes good governance- and even understanding the nature of the "resource" in question – lies at the heart of the issue. GRMA, for instance, saw its role as critically important in protecting the best interests of the Gander River, alongside broader public interests and concerns, and wanted to ensure that the organization would continue to do so by raising funds through the river specific license. In this case, however,

[45] In the amount of $10 dollars, per license for one season, which provided anglers the opportunity to catch and retain 4-6 fish on the Gander River alone, depending on the salmon stocks determined through the DFO figures on the counting fence at Salmon Brook.

the broader public interests – embodied in NLWF's opposition – were not interested in the goals of CWM on the Gander River.

The rural constituency on the Gander River in this example is GRMA and GRMA supporters, who were largely the main users of the resource and have a greater day-to-day intimacy with respect to specific management concerns and demands placed on the river, understanding of environmental issues and questions of local livelihood. GRMA was disadvantaged not only in terms of their relative lack of coverage on public airways, but also because their specific management strategies for the Gander River were less accessible to the larger public than the broad appeals to the right to unmitigated access to the outdoors, as an integral part of Newfoundland heritage (which was ultimately never under threat). GRMA was also at a financial disadvantage because little of the provincially generated revenue through the sale of salmon licenses was being redirected towards community-based efforts at maintaining the integrity of watershed ecosystems (Pers. Comm., GBIBC, GRMA 1).

Furthermore, the entire debate raises questions about appropriateness of Newfoundlanders' 'universalized' right to access in outweighing particular and contextualized concerns of local environmental management. I proceed cautiously here, because as stated before, it was a misinterpretation on the part of NLWF to claim that GRMA were trying to remove any right to access. Nor is it my intention to trivialize the importance of individuals' right to access provincial waterways. However, the debate over whether the river specific licenses should be implemented did affectively polarize local versus broader regional concerns regarding the best way to manage the Gander River, raising the question of the most appropriate scale(s) of governance. During this time, the provincial government was facing harsh criticism from opponents for their support of GRMA's operational concerns, creating a wide-reaching political

uncertainty and instability around CWM, and local resource management more generally. This example illustrates that strong local governance combined with multi-level governance strategies were unable to deal with the politics associated with the governance of the Gander River. It also suggests that the emphasis in place-based development on the importance of local governance as an asset that can mobilize other assets is somewhat facile. Strong local governance and multi-level and collaborative governance strategies will always be challenged by politics which are not just susceptible to, but actively promote, universal renderings of what is good for the environment, particularly in periods of political instability. In other words, despite GRMA's approach to river management being scientifically validated, through DFO scientists, as well as socially responsive to the local population of river users, the organization's concern for the river was cast in opposition to the freedom of would-be river users province wide. It could be argued that this situation may have been avoided through greater public consultation and education, but in the end, local interests for the environment were trumped in favour of uncontested freedom to fish the Gander River without an additional license requirement. The effect of this process went beyond the specific case in that it contributed to reduced support for all CWM organizations by the provincial government (Pers. Comm., DNR). Although, issues around CWM represents a microcosm of provincial resource politics in Newfoundland and Labrador, the failure of GRMA to persevere can, in part, be attributed to the idea that context specific solutions are too plural and unruly in nature for sustained governmental support in a bureaucratic environment that is more comfortable with generalized solutions. Ultimately, there is a lack of attention paid to politics in the mobilization assets within the place-based development framework.

Issues related to public participation have unfolded in a number of ways on the Gander River, and success towards achieving and mobilizing 'public participation', and by extension,

community cohesion in development, is obscured by the fact that these terms require a very specific understanding of what is meant by the words public and participation. As stated by Hildyard *et al*. (2001) "*participation* covers a spectrum of meanings: for many project managers, it may signal a means to cut costs, secure cheap labor, or co-opt opposition; for marginalized groups, by contrast it is a right-both a means to an end and an end in itself" (p.56- emphasis in original). Understandings of these concepts are not necessarily consistent across the different social-political and socio-natural relations constituting the Gander River watershed (Escobar, 2008). Despite the efforts to distinguish different degrees of public participation (e.g. Arnstein, 1969), it is evident that only some kinds of participation are mobilized for development.

In terms of addressing the issue of inclusion in place-based development and CED models there are a series of 'best practice' strategies aimed at doing it better, however the question of what *inclusion* means in the work of environmental management organizations is key in understanding why some people are disengaged. A lack of community cohesion, for instance, variable community buy-in for the Gander River specific licenses- and by extension CWM and GRMA, could be described within the place-based development model as problem associated with a lack of meaningful public engagement on the part of a management organization as well as from the general public itself. This follows from evidence that there are higher levels of social capital, in particular 'bridging' capital, which is the process whereby stronger relationships are developed with individuals and groups from outside the region- and community cohesion in places where residents are more civically and otherwise socially engaged with issues pertaining to the

community and the broader societal relevance (Putnam, 2000; Jeannotte, 2003).[46] However, the problem of lack of community buy-in described above cannot simply be reduced to that of intentional (or unintentional) exclusion on the part of organizations such as GRMA, DFO, provincial resource-based departments. The major issue is that, in addressing resource governance of the Gander River, there is lack of consensus of what is at stake on the Gander River and what the river *is* to various people who are on it. In a general sense, community cohesion on the Gander River cannot be met without first recognizing that all those players involved do not share the same understanding or experiences of the river. There is evidence of shared understandings- or at least a shared code of conduct with respect of how to act on the river- between different subsets of river users. For instance, one participant describes anglers on the river: "most people who are salmon fishing are very respectful of everyone else's privilege to fish that pool. And lots of times people will go up and if there is room in the pool they will find a bit of a different position in the pool, if not, just find another pool. There's lots of pools (Pers. Comm., BUS 3)". However, such mutually sustained cooperation is a specific achievement that takes place at a localized scale, and by extension community consensus, cannot be extended to river management as a whole.

I would like to suggest that despite the rhetoric of an open public process, only certain types of participation and only certain kinds of public are actually mobilized for development. This argument stems from the notion that some kinds of assets are of good quality, while others are not. For instance, one interviewee reflects on the 'participatory' process while engaging with forest management in the watershed region: "I wouldn't say that they [forestry companies, e.g.

[46] It is not my intention to debate the effectiveness of genuine public engagement strategies in enhancing community cohesion, because such strategies are important to community development (and responsible governance) as a whole in developing a collective vision and forming strategies to achieve shared goals.

Kruger] were hard to work with, but we always had to have documented evidence of what we were saying. Not what people were saying (Pers. Comm., GRMA 3). This quote implies two things: first, only particular kinds of participation were actually permissible within the open forestry planning sessions,[47] and those are arguments based on scientifically validated research. Second, by limiting appropriate participation to arguments legitimated through science, then only the literate, educated and those who can mobilize resources for research were afforded genuine participation in the forestry planning process and influence development in this instance. Yet, some forms of productive public participation, or at least engagement, on the river do exist, such as, the ongoing and collective angler ethic around pool crowding. However, as this is an informal mechanism of participation, it is likely to go unnoticed within the larger management and development players governing the Gander River.

Some interviewees suggested that they did not want to become engaged in any kind of management process because they felt they were simply being consulted during public meetings and that any decisions to move forward were decided well before a meeting even took place. Thus, there exists a sentiment that not only their voice was not being heard- in this case in a meeting hosted by the federal government agency, namely DFO, but there is also the feeling that GRMA was too aligned with DFO's trajectory set by provincial and federal players- and that GRMA was only playing lip service to the residents living in the region. According to one interview participant, "I have never been to a meeting yet [whether with DFO, GRMA, or the local band council] that has meant anything to me. They've got a job to do, so they read all this stuff off, they don't want to hear anything from you- that's what I figure. They are going to do it

[47] The 'open' forestry planning processes would not necessarily stand for the place-based development ideals, however the larger argument here is that the ideals themselves are not realistic.

their way and that's it (Pers. Comm., BUS 2)". According to this interviewee, for example, he has not had a conversation with a local person who was totally in support of the current catch and release approach to salmon management, despite it being advocated by DFO, the Atlantic Salmon Federation, and GRMA when they were in operation.

The examples I have illustrated above could be categorized as failed attempts on the part of local management and development-oriented organizations to genuinely engage the public in a dialogue around community-based management and place based-development, thus ranking lower on Arnstein's (1969) ladder of participation. There are instances of successful participation efforts within the place-based development model (e.g. Markey *et al.*, 2008; Fullerton, forthcoming), and this mode of development is certainly more likely to positively utilize genuine local participation than its development counterparts as it were. However, there is one critique that can be put to place-based development directly related to the concept of participation and that is the assumption that a management or development related issue can be resolved by bringing a wide groups of stakeholders to a table, and that the resultant discussion is simply a matter of different perspectives coming together to work towards a common good. In the Gander River watershed, this framework assumes that those differences emerging from the question of what is good for the river, what will ensure its wellbeing, can be resolved through bringing a diverse set of voices to the table, as if these differences were simply reducible to a matter of perspective. But what if these differences are something more?

3.4 Fork in the road

In conclusion, the reader might ask, why a sympathetic critique? There are issues within the place-based development framework that make it difficult to operationalize effectively,

including- but certainly not limited to- problems related to multi-level governance, community-participation and cohesion. Despite these concerns, a *sympathetic* critique is appropriate, because in dealing with models which seek to tackle the ongoing problematic of rural and regional development,[48] it would be prudent to apply cautious reflection, such that the baby is not discarded with the bathwater. Development, variously defined, and particularly that with a singular economic focus, will continue to occur regardless of its critics and varying approaches (place-based, collaborative, neoliberal, top-down etc.), thus the questions of development will not go away.

At this juncture, there appear to be two options in which we may proceed. The first is that we could improve place-based development as it currently exists in the literature, and especially as it plays out on the Gander River. In improving place-based development on the Gander River, there are a number of public policy implications that emerge from this analysis:

- In an effort to improve the power imbalances between provincial and regional players, and to provide greater political legitimacy to local environmental governance organizations, integrated and collaborative multi-level governance require a public policy that ensures the provincial government invest into major rivers in Newfoundland and Labrador. This is especially where there is the presence of Community Watershed Management groups or some other community-based governance arrangements present.

- Groups and individuals on that Gander River would benefit through looking for ways they could increase and strengthen their engagement with both government and non-government stakeholders and would-be interest groups. For river-based management and development practice, sharing internal lessons and gaining lessons from outside would be beneficial as well. Continued effort needs to be made on the part of the province, and by regional players to seek out innovative ways to solve environmental issues at the local scale as well as ways of incorporating economic and social traditions (such as self-provisioning activities and guiding) in meaningful and socially relevant ways in the

[48] Planners, academics, government, community-members alike have been trying to find solutions to rural and regional development in Canada for the last five decades to improve the future outcomes of these places (Gibson, 2013), thus the problem as it were is clearly not new.

watershed communities. These could be achieved in multiple ways including: efforts at developing eco-tourism ventures, ecological knowledge exchanges across generations, or river-based skill training (such as guiding) though field and class-based learning.

- Development and management decisions would be improved through the greatest possible inclusivity in bringing various stakeholders' voices to the discussion- especially those who are under-represented or bring different cultural values and beliefs to the table. Support and participation of those living in the region is critical for both community-based governance and development.

However, within place-based development there is a core assumption that we can at least attempt to work towards addressing issues, seek to improve well-being, and identifying the best way forward in developing and governing the Gander River, by "putting heads together" and discussing amongst interest groups. In the best case scenario, this may result in arriving at a solution that has included those perspectives and values of all stakeholders, especially those most deeply impacted. But, ultimately any solution is a compromise between the various different players involved. Thus, the second option in the proverbial fork in the road: we could think about the problem of resource governance differently—through examining what else is on occurring on the river.

In going down the second road, it is understood that management and planned development are not the only ways in which people engage with the river in a purposeful and caring way. The subtle issue at work in place-based development, which is also typical resource governance arrangements, is that discussion about 'what is best for *the* river?' often assumes that the river is a singular entity; in other words, it assumes that we can all agree on what the river *is*. It is a thing that can be managed, with input from a diverse set of *human* stakeholders around a boardroom

table, who decide the best course to take with respect to managing, or developing *the* river.[49] In place-based development, differences about river governance and development strategies represent different perspectives on the river. But, what if the differences are more profound? What if they are not about perspectives but about different rivers? For instance, the river that one resident travels on in his river boat every spring and summer, for over sixty years, and where he has caught, and eaten, countless salmon, is different than the river being discussed and managed by stakeholders. They are different in fundamentally productive ways. Ultimately, there is more at stake here than reconciling perspectives, as the differences are embodied in practices, lived realities, taking place on the river.

[49] With perhaps some locally derived input ascertained from a public community-consultation meeting in a local building, for example. For watershed groups, ongoing dialogue with users is a key part of the input/consultation process.

Chapter 4 The salmon on the Gander River

It is possible to say that in practices objects are enacted. This suggests that activities take place—but leaves the actors vague. It also suggests that in the act, and only then and there, something is – being enacted.

(Mol, 2002, p. 33)

You've got to have some people who care about things, or what kind of world would it be?

Jim Crewe

4.1 Introduction

When I was in Glenwood and Gander Bay conducting fieldwork, I was thoroughly welcomed by the people I encountered, especially when I said I was there to learn about the river. People love the river, and are happy to share their stories and histories on the Gander River, in their community and the surrounding country.[50] However, their tone changed when I suggested conducting a formal interview about the river, which for some people appeared to be an entirely different proposition. They seemed to be particularly reluctant to engage in a discussion on how the river should be managed.[51] Perhaps their discomfort had to do with issues of positionality.[52] The people involved in my research seemed to feel discomfort in the idea of participating in a process similar to what might happen through formal roundtable discussions where issues of

[50] Country in this context refers to the woods. As opposed to going on the river, where the main activity would be fishing, to go out to the country implies that one is going hunting or trapping- at least in the historical use of the word.

[51] More so than just talking about their activities on the river, for example.

[52] It could be the case that the question of postionality/identity had to do with identities I assumed when proposing a formal interview, which constructed me suddenly not as a guest in people's territory but as an outsider, an "expert" from 'the university'.

management are discussed and debated. But there may be more to their hesitation, more than a reluctance to engage in what appeared to be formal planning. I consider here that perhaps the source of their discomfort has to do with deeper seated differences about the river itself that have little to do with differences in perspective. What if their reluctance to discuss managing the river was not about a discomfort with formal planning, but was instead about what the river *is* to the people I talked to? As alluded to in the previous chapter, natural resource management and place-based governance assume that there exists a singular object reality which can be managed, developed, and governed by (many and diverse) parties, who come to the table with often drastically different perspectives. But what if it is the thing it itself, the single object reality, is simply not the same thing from person to person?

Recent writing in the field of science and technology studies (STS) provides a way of interpreting the responses I had to questions about managing the Gander River. This writing suggests that in a case like the Gander River, there is more at stake than reconciling perspectives, as the differences are embodied in practices and lived realities taking place on the river. The analysis that follows has been informed by the praxiographic/performance scholarship of Mol (2002, 2008a), Law and Mol (2010), and Lien and Law (2011) and Law and Lien (2013). A particular critical approach has been championed by Haraway (e.g. 1991, 2008), and others (e.g. Howitt, 2001; Thompson, 2002; Latour, 1993, 1999; Hinchliffe, 2007; Law, 2007; Bridge, 2009), that blend attention to the materiality and agency of the non-human world with a critical understanding of how social norms, power relations, and practices structure human encounters with that world. More recently, Bear and Eden (2011) have used this kind of analysis in investigating the co-productions by fish and recreational anglers. As alluded to in the quote at the beginning of this chapter, the concept of *enactment* has critical analytical value within science

and technology studies because it challenges the idea that objects exist in predetermined and preordained forms, which lies at the kernel of essentialist ordering of things (Woolgar & Lezaun, 2013). Enactment is part of a cluster of related terms ranging from weak to strong skepticism of positivist and perspectivalist notions of reality: "social shaping, aggregating, affording, providing for, constructing, apprehending, performing, bringing into being, constituting, and enacting" (Woolgar & Lezaun 2013 p. 324) where enactment offers the most disruption to beliefs of singularity. Thus, when I state there are multiple Atlantic salmon enactments on the Gander River, I am arguing that the salmon is performed- through various practices, humans and technologies- such that what exists in the end is not simply different perspectives of the *same* salmon, but rather ontologically *distinct* salmon. As stated by Law (2004), "we are not dealing with different and possibly flawed perspectives on the same object. Rather we are dealing with different objects produced in different method assemblages. Those objects overlap, yes. Indeed, that is what all the trouble is about: trying to make sure they overlap in productive ways.... So they overlap, but they are not the same" (p.55).

The Atlantic salmon offers a key entry point in discussing multiple enactments of the Gander River because in many ways this fish has been a cornerstone of peoples' lives on the river, as a resource, a source of sustenance, and symbolic marker of local/Aboriginal identity. Thus, any discussion around the management, or indeed the place-based development of the river must deal with the salmon in some way. Attending to the practices associated with the salmon 'resource' reveals different salmon realities, which cannot be reduced to differences of perspective under the discourses of alternative management, place-based development or local resource governance. This is because there is no single object (salmon) to manage; instead, the salmon is multiple.

In examining the practices associated with salmon capture, I follow Law and Mol's (2011) treatment of foot-and-mouth disease, which suggests that these enactments use "different *materials*, [and] attribute different *qualities* to entities relevant to their worlds" (p. 9, emphasis in original). To the extent possible, the various materials and qualities existing within and attributed to each performance will be explored in each of the salmon.

In this chapter, three salmon will be presented: the commercial salmon, the catch and release salmon and the willful salmon. These salmon are ontologically distinct based on the different practices that enact them. The commercial salmon has been enacted throughout the period of European contact in Newfoundland. The main tool used in the commercial fish is the net, such that that salmon can be harvested and sold in abundance. The practices that enact the commercial salmon no longer occur on the island of Newfoundland, and thus, the commercial salmon is extinct within this geographic area.[53] The catch and release salmon is enacted though practices associated with recreational fishing: a rod, hook and line. This fish is caught for sport and released into the water, with the intent of preserving its life, rather than being retained by the angler. The third fish is different altogether from the previous two: I call it the willful salmon. In practice, the willful salmon, when caught, is killed. The willful salmon is enacted as a fish that when caught it is eaten. Through this presentation of these three salmon, I interfere with the standard narratives of what is best for the Gander River and its salmon from a management perspective because I am introducing multiple salmon reals. This interference leads me to elevate one salmon reality – the willful salmon – that is usually obscured and rarely considered in management practice. In so doing, I highlight one salmon reality that is at risk of being

[53] That is, its legal form. Poaching is arguably a (re)enactment of commercial salmon, provided that the salmon is sold. For the purpose of this analysis, I refer to salmon that was caught in mass volume as part of a legal commercial salmon industry.

marginalized from discussion of what is good for the Gander River. My claim is that the willful salmon is a legitimate fish, and one that is cared for and done well in the context of the Gander River.

The purpose of presenting three salmon enactments is to provide a more balanced analysis of the river; however, this analysis need not be limited to the salmon, it could be applied to moose, cabins, water quality or any number of objects enacted in practices. It should also be clear that this presentation is an intervention itself. While I have attempted to provide a balanced account of the various salmon enactments, I too am responsible for interfering with how the narrative is typically told, and in doing so, the profile of one of the salmon realities is raised. The process of exploring alternative narratives of reality is a critical task in the process of decolonialization because it positions alternative reals in equal status to otherwise 'universal', and fundamentally oppressive, narratives of reality (e.g. Blaser, 2010). However, the presentation I provide is not neutral, nor is it likely to be (Law and Mol, 2011). The analysis I present while balanced in the methods I have utilized in unpacking each salmon is in favour in one salmon in particular, if only to raise its status as legitimate.

4.2 The commercial salmon

While much of the history of Newfoundland has been written around people's connection to the commercial fishery of north Atlantic cod, the commercial Atlantic salmon fishery played a critical role in the livelihoods of early-European migrant fishermen and it shaped the development of permanent settlements along the coastal areas of the island and Labrador.[54]

[54] Particularly those settlements established off of the Avalon Peninsula, which while the first region with permanent settlement, has a lower relative concentration of salmon rivers.

Migratory fish harvesters, and later residents of communities along the mouths of larger rivers, including Gander Bay engaged in river-specific, commercial salmon fishing on a large scale from the mid-18th century until the early 1900s (Pitt, 1984). The commercial salmon fishery continued in Newfoundland until the moratorium on salmon harvesting in 1992. At this time it was obvious to the federal and provincial governments that in addition to lack of economic viability, the commercial harvest placed too much stress on the Atlantic salmon population as a whole (Bursey, 1994). The commercial harvest also ran in direct conflict with the recreational fishery and salmon angling groups such as the Atlantic Salmon Federation (ASF) and the Salmonid Association of Eastern Newfoundland (SAEN), who were active players in lobbying for the closure of the commercial salmon fishery.

This section will outline and discuss the practices that enact the commercial salmon. This history was critical in creating and defining those communities located along the mouths of salmon rivers, scattered along the coasts of Newfoundland and Labrador. Here, the term commercial salmon refers to *wild* salmon as opposed to those raised in aquaculture.[55] Additionally, it is important to point out, that while the practices enacting the commercial salmon were prominent during- and prior to- the period in which coastal communities, such as Gander Bay, came to be, currently the commercial Atlantic salmon is extinct across Newfoundland and Labrador.[56] It is extinct because the practices enacting the commercial salmon are no longer occurring in the

[55] While farmed Atlantic salmon represent an important part of finfish aquaculture, and contribute significantly to the provincial economy, this practice is entirely outside the scope of this project.

[56]The 1992 moratorium largely exempted the commercial salmon fishery in Labrador. By 1994 the commercial salmon fishery in the province was limited to approximately 200 license holders along the Labrador coast (Bursey, 1994). Moratoria were put in place in 1998 for Labrador and 2000 for all commercial salmon fisheries in eastern Canada (DFO, 2009). Additionally, the Aboriginal food fishery for salmon is allowed in Labrador and in Miawpukek First Nation, but Miawpukek have not engaged in the food fishery for over 20 years for conservation reasons (MAMKA, 2007; DFO, 2011).

province.[57] That is to say, the materials and methods associated with the wild salmon are no longer practiced. This subsection will draw from the literature, policy and participant interviews regarding the history of the commercial Atlantic salmon, its demise, and connection to the "other" salmon enactments. The history of the commercial salmon plays a critical role in the emergence of the catch and release salmon in particular, because the latter is couched in terms of salmon conservation, which was a significant concern after decades of mass commercial exploitation.

A key part of the Atlantic salmon story told here lies in its biology. The salmon is an anadromous fish, meaning that it is born in freshwater ecosystems and eventually migrates to the ocean where individual fish can spend varying periods of time, to feed and subsequently grow large, eventually to return to its native river to spawn. Unlike other species of salmon, where individual fish typically expire after having spawned in gravel-bed river systems, the Atlantic salmon are able to continue this cycle (Dempson & O'Connell, 1993; Bursey, 1994; National Research Council, 2002; Verspoor, 2007). Those areas adjacent to the mouth of "salmon rivers", such as Gander Bay, were critical locations in terms of proximity to capturing those salmon returning from the marine waters to their birthplace to spawn. Thus, for most of its existence, the commercial salmon harvest was located along the mouths of rivers and the inshore waters of specific bays. Historically, it was well known that the mouths of the rivers were areas abundant with salmon, which were harvested by the Beothuk,[58] the Norse and from the earliest period of the English migratory fishery (Bursey, 1994). Commercial exploitation began in a significant way in the early 1700s, and by 1723 George Skeffington had established a sizeable enterprise in

[57] Except for those who sell salmon illegally.
[58] Although the Beothuk did not engage in commercial exchange of Atlantic salmon (Janzen, 2014)

Bonavista and Notre Dame Bays (Head, 1976; Bursey, 1994).[59] The communities that comprise Gander Bay--Gander Bay South, Main Point, Beaver's Cove, Davidsville, Clarke's Head, Wings Point, Victoria Cove and Rodger's Cove—were settled and largely developed around the commercial salmon fishery (Head, 1976; Pitt, 1984; Taylor, 1985; Hustins, 2010). As stated by one interviewee: "the commercial salmon fishery is the reason people settled here in the first place" (Pers. Comm., GBIBC). The remainder of this section will explore the materials, qualities, temporality, and spatiality that constituted and were associated with the commercial Atlantic salmon, in particular, the commercial salmon as it has been done in Gander Bay and along the Gander River.

4.2.1 Materials

Commercial salmon were enacted through various human and non-human agents, ranging from fishing gear to federal policies regarding their management, all of which kept this fish together in a specific way. The early commercial salmon harvest, circa mid-18th century, primarily used stake nets as a means of catching fish (Bursey, 1994). These nets were effectively gill nets which were secured to the river bottom with stakes and weirs to prevent the migration of salmon upstream (Bursey, 1994). This activity took place in the lower reaches of the river, or at the mouths of rivers. By the end of the 18th century, fishing gear shifted to floating gill nets placed within estuaries, or further out into the bays (Bursey, 1994). Critical changes in technology, in combination with a growing workforce, led to increasingly intensified salmon harvests. From the late 18th century to the mid 19th century Newfoundland salmon exports increased to

[59] Commercial operations had also been established on the south coast, namely in Placentia Bay during the early to mid 18th century, however this description will focus on the northeast coast in particular due to its proximity to the Gander River.

approximately 600 tonnes per year, compared to 1000 tierces[60] (~150 tonnes) per year in the 1730s. By the end of the 19th century annual exports exceeded 1000 tonnes. Salmon harvested in Newfoundland were exported to markets in Europe, predominantly England, by the 1000s of tierces (Bursey, 1994). Salmon was processed locally, with a number of canning factories and smaller plants located in Gander Bay. Early processing involved splitting and salting the fish and packing them in wooden barrels, but after 1860 fish were also exported to foreign market on ice (Bursey, 1994; Hustins, 2010; Pers. Comm., GBIBC).

The salmon fishery in Gander Bay began in the early 18th century, yielding annual harvests of 250 tierces in 1800 (Pitt, 1984). Only since the early 19th century was Gander Bay established as a permanent place of residence, which as previously stated, was entirely predicated on the commercial salmon. In 1836, sixty inhabitants were reported in Gander Bay, five of whom were fishery servants (Pitt, 1984).[61] As described by one resident in Gander Bay:

> My father had people can salmon [circa 1910-1930], a small factory to can salmon and can bakeapples at the time. And my brother was bringing down boat loads of those salmon that was getting caught in those nets. They were bringing them down in boat loads. To give you an idea, when salmon first come in, because there was a lot of commercial fishing with gill nets, they were five cents a pound, when they first came in. In July month, when the salmon were more plentiful, it dropped down to 2 and half cents per pound. There is a lot of difference to that and today (Pers. Comm, RES 2).

However, it became evident in the latter part of the 19th century that the Newfoundland salmon fishing effort- specifically the commercial *river* fishery- was yielding diminishing returns (Bursey, 1994). According to Bursey (1994) "the history of the river-based salmon fishery was typically one of high initial catches, followed by progressive declines" (p.82). On the Gander

[60] A tierce is an old English unit of wine casks; 1 tierce is equal to approximately 159 L.

[61] Fishery servants worked on fishing boats and maintained gear for ship owners. The process of settling in Newfoundland typically required indentured servitude in the case of those employed in the fishery (Handcock, 2000).

River this translated to a decrease in production from amounts between 500 and 900 tierces annually in the mid-1800 to fewer than 20 annually by the end of the century (Bursey, 1994). In response, the colonial government made attempts to regulate the harvest through mesh size restrictions, open and closed seasons and regulations to increase escapement, which were largely ineffective because of a lack of enforcement (Hustins, 2010). In addition to over-harvesting pressures, the development of the sawmill operation in Glenwood, and the forestry industry as a whole, had a major negative impact on the headwaters of the Gander River, through the development of dams and the impact of erosion and sedimentation, all of which threatened the safe passage of salmon to their spawning grounds. By the beginning of the 20th century, employment in Gander Bay had shifted towards forestry and the fishery took place almost exclusively in tidal waters and further offshore utilizing gill nets and drift nets, respectively (Bursey, 1994).

While the nets themselves were critical materials in enacting the commercial salmon, the regulations around netting practices, including net mesh-size, contributed to the salmon's demise. Netting restrictions were established in the second half of the 18th century, but in many parts of the island, particularly in remote areas, these were not enforced. Records from a salmon warden in Gander Bay dated 1884 indicated that the salmon catch in this once prolific river had suffered due to barring and over-netting (Hustins, 2010). Around the period of Confederation, there were ongoing discussions in and between the Newfoundland Fisheries Board and the Newfoundland Department of Natural Resources. After Confederation (after April 1st 1949) the status of salmon were the concern of the federal Ministry of Fisheries,[62] officials from provincial

[62] A precursor to the current Fisheries and Oceans Canada (DFO)

and Dominion fisheries, and joint provincial task forces regarding the status of the Atlantic salmon, particularly its commercial decline as a result of over netting (Needler, 1950). Prior to the *Wildlife Act* of 1948, salmon and trout regulations in both the recreational and commercial fishery were inconsistently applied at best. [63] For instance, in a 1947 meeting of the Fish and Game Advisory Board, it was apparent that while certain regulations to mitigate the negative effects of the commercial salmon fishery – such as lifting of nets over weekends and ensuring salmon and cod traps did not obstruct the passage of salmon up river – took years to implement by the Newfoundland Department of Natural Resources (Needler, 1950). Given the perceived state of the commercial fishery and the Atlantic salmon stock itself, the Advisory Board felt this delay was negligent.

Archival correspondence between Fisheries Officers, the Department of Natural Resources and local businesses and information collected from participants indicate there was high degree of variability in terms the perceived damage of relative net mesh sizes, particularly in the period between 1920 and 1960. This may be explained by changes in the scientific knowledge related to salmon and trout biology and fishing practices over the 20th century. By the early 1960s some of the local river enforcement officers believed that the larger mesh size caused greatest damage to the stock's large-sized salmon. As explained by one interviewee:

> One of the things I remember was a gentleman by the name of Stanley Gillingham who was a federal fisheries officer [circa 1940-1960] on the river in this area and a comment he made when the federal fisheries changed the mesh size on the nets the local fishermen were using. They were using at the time 3 and a half and 4 inch mesh for salmon and they

[63] While open and closed seasons had been established prior to 1948, there were no existing bag limits for either recreational or commercial salmon fishing (Hustins 2010). Moreover, the regulations set forth in the 1948 *Wildlife Act,* particularly those pertaining to restricted gear use and practices (no netting, jigging) and bag limits only applied to recreational anglers. Despite controls being placed over net mesh size and restricted locations of harvest, prior to 1950, commercial harvesters did not require a license (PANL, 1935).

> increased the mesh size to 5 inch and his comment was 'There goes the salmon' he said 'I might not see it in my lifetime but you'll see it if you live to my age' and he said 'You will see what happens'. The reasoning behind it was when they were using the 3 and a half, 4 inch mesh most of the salmon they were catching were grilse. They were catching salmon anywhere from 3 to 5-6 pounds, maybe a 7 pounder and that was it. Most of them were in the 4-5 pound range, they would get maybe an odd 7-8 pound salmon that the net would be a little bit slack and would roll in it. Once they changed to a bigger mesh size, they started catching the larger fish, of course the larger fish are your breeders, these are the ones that a 5 pound fish would probably lay a couple thousand eggs, a 20 pound fish would lay 25,000 eggs, and the eggs are much larger and a lot more of them survive… So once you start catching the larger fish then your salmon declines and that was his comment and I know that had some bearing on the decline of the salmon over the years (Pers. Comm., LSD)

In the early 1930s, in contrast, the belief held among officials in the Newfoundland Department of Natural Resource, was the use a smaller net size (i.e. below 4 inch mesh) was more damaging to the salmon population as a whole (PANL, 1935).[64] The earliest recorded instance where the Newfoundland Fisheries Board pushed for increased mesh size in netting was 10 years earlier, in 1921. And this move would set a trend for subsequent net regulations in the decades to follow. Thus from the early 1920s increasing numbers of large salmon, i.e. "the breeders" were targeted with larger mesh-sized netting.[65]

Declining catches of Atlantic salmon were very pronounced in the early to mid 20th century. This of course, generated much concern in terms of how they could be better managed. However, while the commercial fishery was still in operation, the focus remained on increasing commercial landings.[66] In the 1950s, massive Atlantic salmon overwintering grounds were discovered off the

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[64] Though there is evidence to suggest this was not necessarily the case by salmon and trout research conducted during this period at the Fishery Research Laboratory, located in Bay Bulls (PANL, 1935)

[65] Yet, as stated in the quote above, larger mesh size also better ensures that larger salmon are able to be caught- whereas the small mesh size was only really effectual for catching grilse. This is due the larger salmon often being able to evade taut netting of a small mesh size if it is stretched across a section of river- whereas mid-sized and larger fish would get stuck in the mesh of a larger size (Pers. Comm. RES 2).

[66] It should be noted that after Confederation, these effort became increasingly regionally based, such that the maximum benefit could be derived for Newfoundland and the other four provinces engaged in the commercial

coast of Greenland, which drew international fishing efforts of unprecedented portions (Bursey, 1994). Given the pelagic nature of this fishery floating gillnets were used and these were highly effective in catching salmon. These stocks became rapidly depleted, resulting in an international agreement signed in 1976 that banned the use of floating gillnets because of the destruction they caused to the stocks off of Greenland (Bursey, 1994). While the practice of netting ultimately defined the commercial salmon, the types of netting used and, perhaps more fundamentally, the intensity in which there were deployed, led to a moratorium on the commercial harvest of Atlantic salmon in Newfoundland in 1992, and in 1998 in Labrador (Hustins, 2010). After this date, the wild salmon became commercially extinct. Because the practice of netting was banned, a practice that enacted the commercial salmon, the commercial salmon became extinct. Subsequent salmon management efforts focused on the catch and release and recreational angling, which meant a renewed focus on local river systems and increased responsibility of river users for the health of the salmon stocks.

Another material that was critical in holding together the commercial salmon is the counting fence (Figure 4.1). A fence has been in place on Salmon Brook, one of the major tributaries on the Gander, since the early 1970s. During the 1980 and 1990s there was another counting fence across the main stem of the Gander River.[67] Counting fences allow fishery observers to obtain an

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Atlantic salmon fishery (i.e. Nova Scotia, New Brunswick, Prince Edward Island and Quebec). In the inaugural meeting of the "Co-ordinating Committee on Atlantic Salmon", with representatives from each of the five at Atlantic provinces and the federal Ministry of Fisheries, on November 3rd 1949, it was evident that Newfoundland had the least systematized record of total catches of all provinces (Needler, 1950). There was additional concern expressed by this group because Newfoundland, based on geography, was in an advantageous position to 'intercept' salmon that were destined for rivers in the other provinces. Thus, the committee presented a clear need to manage salmon across large ocean areas, with scientific and political representation from the provinces and centralized administrative control in Ottawa.

[67] The latter was funded part through the Cooperative Agreement on Salmonid Enhancement and Conservation (CASEC), a federal/provincial cost share agreement (GRMA, 1999; Pers. Comm., ACOA)

approximate number of salmon that make it to their spawning grounds.[68] The counting fence is set up in a way that prevents salmon from crossing the river by a metal fence that stretches across the width of the river (Figure 4.1a). The salmon are then forced to swim up the ladder and then become stuck in a chamber which allows the fishery observer to access and count the number of fish (Figure 4.1 b. and c.). Afterwards, the observer lifts a gate at the upstream portion of the ladder and the salmon can continue to their spawning grounds. The numbers of fish are recorded in a dated ledger, along with fish size and notes on weather and river conditions and these are submitted to DFO. Fish fatality is unusual in the counting chamber, but the fences require checking upwards of five times daily while the fence is placed across the river during the fishing season in the summer months.

[68] Fishery observers were largely employed through DFO, but the fence across the main stem of the Gander River, which was removed in the late 1990s, was operated through volunteers such as members of GRMA.

a

b

Figure 4.1 Counting fence on Salmon Brook (Photo credit: J. Daniels)

Initially, provided that the count was higher than a particular threshold, the commercial salmon could continue. But the counting fence kept the commercial salmon together only insofar a minimum threshold was met, and thus, it simultaneously played a key role in the commercial salmon's demise. Commercial landing of salmon reached all time lows during the early 1980s, half of the level they were in the 1970s (Bursey, 1994), and as a result a comprehensive management plan was launched in 1984 in order to mitigate further damage to the stocks.[69] Despite the restrictions placed on the commercial harvest in the 1984 plan, including: a mandatory tagging system, for salmon that were caught, a moratorium on new licenses and delayed season opening, there was no evidence of a *consistent* increase of salmon recorded at the counting fences on rivers across insular Newfoundland (O'Connell *et al.* 1992). This was a

[69] One of the strategies in the 1984 plan was to set regulations around the maximum size at which a salmon could be retained through recreational angling (Dempson *et al.* 2006): i.e. 63 cm, which remains currently.

critical point in leading to the commercial salmon moratorium. As stated by one participant, "it's because of counting fish on the Gander River that they closed the commercial salmon fishery, what they seen, the results that they seen coming in this river" (Pers. Comm. GRMA 1).

Numerous studies demonstrate that in the years immediately following the moratorium, salmon stocks on the Gander River watershed and rivers systems across the island, showed- what fisheries scientists claim as - *predictable* increases (e.g. Ryan *et al.*, 1995; Dempson *et al.*, 2004; Dempson *et al.* 2006). Dempson *et al*. (2006) state there were significant increases on the Gander River post-moratorium: "runs of small salmon varied from about 6700 to 7700 from 1989-1991 then rose to 18000 to 26000 fish during the next five years" (1992-1996) (p.6). [70] Despite this, research conducted during this period maintained that the Atlantic salmon population as a whole had still not improved to the degree that moratorium would be lifted (O'Connell and Dempson, 1995). Additionally, according to Dempson *et al*. (2004, cf. Dempson and O'Connell 1993):

> Expectations associated with closure of the Newfoundland commercial fishery were reported in 1993 and included: (i) increase in returns of small and large salmon; (ii) increase in proportion of large salmon; (iii) increase in smolt production as a result of higher spawning escapements; (iv) increase in smolt to adult survival back to the river; and (v) an increase in the size of salmon returning to rivers as a result of terminating a selective ocean gill net fishery. (p.397)

However, over the following decade, these expectations were not consistently met, and in a later study researchers suggested that "our ability to understand and predict fluctuations in abundance and survival [of Atlantic salmon] remains challenged" (Dempson *et al.* 2006, p. 1).[71] Counting

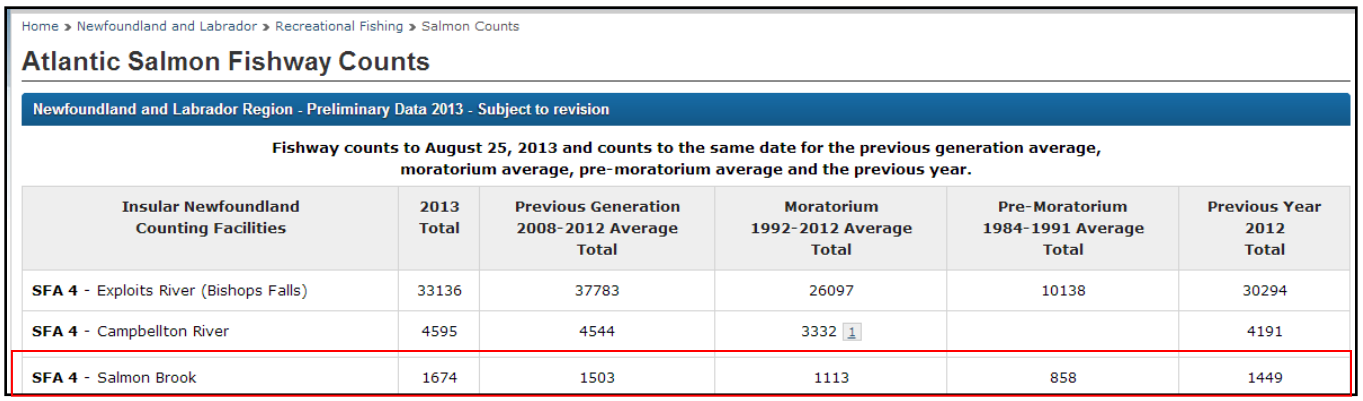
[70] A small salmon is considered any fish less than 63 cm in length

[71] Specifically, predictions around smolt to adult survival back to rivers (iv) and multi-year marine survivorship, which increases salmon size (v) were not met (Dempson and O'Connell 2004).

and the scientific management of salmon have not established a sense of security in understanding the future of Atlantic salmon (e.g. Bavington, 2010). In other words, while the commercial moratorium is unanimously interpreted as a positive move in terms of increasing total salmon populations, particularly on the Gander River, questions around salmon mortality, morbidity and survivorship remain relevant in post-moratorium politics.

4.2.2 Qualities

Law and Mol (2011) argue that realities enacted through practices have "different *qualities* that became important because they worked in different ways" (p. 2). Qualities refer to the different attributes of the salmon enactments, which work in different ways and towards different ends (Law and Mol, 2011). The commercial Atlantic salmon was largely performed in aggregate as this fish is predominantly described in terms of export volume, and then later, as salmon stocks and populations as a whole. As presented above, this aggregate was enacted through volumes of salmon harvested, processed and exported, with the earliest measurement of tierces and later, tonnage. The tierce is a particularly vivid unit of measurement in a material sense, because this unit represented the volume of fish that could be pickled, stored and shipped in a single wooden barrel. Thus, the practice of measuring the volume of salmon is critical to the commercial salmon. From this emerged the necessity of counting fences to obtain salmon counts (Figure 4.2), which ultimately led to the moratorium on commercially harvested salmon and its commercial extinction. Salmon counts continue to be taken along provincial salmon rivers, and currently this practice can be closely associated with the management of the catch and release salmon. The increase in salmon numbers since the commercial moratorium, particularly on Salmon Brook, suggests that the moratorium on commercial salmon harvesting is playing a role in the recovery of salmon stocks on the Gander River.



Home » Newfoundland and Labrador » Recreational Fishing » Salmon Counts

Atlantic Salmon Fishway Counts

Newfoundland and Labrador Region - Preliminary Data 2013 - Subject to revision

Fishway counts to August 25, 2013 and counts to the same date for the previous generation average, moratorium average, pre-moratorium average and the previous year.

Insular Newfoundland Counting Facilities	2013 Total	Previous Generation 2008-2012 Average Total	Moratorium 1992-2012 Average Total	Pre-Moratorium 1984-1991 Average Total	Previous Year 2012 Total
SFA 4 - Exploits River (Bishops Falls)	33136	37783	26097	10138	30294
SFA 4 - Campbellton River	4595	4544	3332 [1]		4191
SFA 4 - Salmon Brook	1674	1503	1113	858	1449

Figure 4.2 Atlantic Salmon Fishway Counts on Salmon Brook, Gander River (DFO, 2013)

The commercial salmon was also enacted as a subsistence entity. The commercial salmon literally and figuratively sustained people in Gander Bay for over 150 years, as the food they ingested, and as means of paid employment, respectively. This particular performance of the commercial salmon as subsistence in some ways overlaps with that of the third salmon I describe in this chapter: the willful salmon. This overlap relates specifically to the act of eating salmon, and at this level the commercial salmon may be enacted as an individual fish. The act of eating, and more specifically, personal (community, provincial, and national) food security can certainly be analyzed in terms of the oldest, and perhaps broadest, definition of economy- that is, to provide for and take care of one's household (Schumpeter, 1954). This type of self-provisioning is a critical component of local community resilience (Lowitt, 2013). In this respect, the commercial and willful salmon are/were both food that sustains/sustained communities of people.

Given that the commercial Atlantic salmon is extinct, it obviously no longer provides people with paid employment as it once did. This was also well recognized by residents of Gander Bay who, in the early 20th century, started to shift from a primary economic dependence on the salmon towards other resource industries. As stated by one participant in Gander Bay, "the

majority of people on the river [currently] are there for the social value, where years ago they were up there for survival -hunting, fishing, trapping- for employment. They are there now for social and recreational reasons" (Pers. Comm., GBIBC). In this way, the commercial salmon and the 'harvest' that once took place along the river and surrounding countryside, was akin to survival. Supplies of fresh and pickled salmon, which were exported *and* consumed locally, were a necessary provision for families to make it from one year to the next. Here, the commercial salmon was in enacted as an entity which was simultaneously a commodity and something that kept people alive in a biophysical sense. The fact that mere survival is not deemed to be as tenuous in rural Newfoundland as it was once was, particularly in terms of a people's dependence on the salmon, points to another reason that the commercial salmon is no more.

4.2.3 The dissolution of the commercial salmon

> The people who historically fish salmon, the memory of the commercial salmon fishery, those people are to the age now that they're out of the fishery, they're too old … they're gone... And also historically now, the young people coming up through, they've got no connection to it (Per. Comm., DFO 1).

The network that held together the commercial salmon is no longer in place, for reasons that are legislative in nature, but also related to tierces, nets, stocks, fences, counts, salmon bodies and the human bodies that harvested them. In Callon's (1986) terms the "choreography" of salmon-human relations has shifted, and in this case, fallen apart such that the practices and materialities which held together the commercial salmon on the island of Newfoundland no longer hold.

In terms of policy, there was a large and strong reaction against the commercial salmon based on the interests of those involved in the recreational salmon fishery. As stated here, the legacy of counting continues, and the counting fence has been enrolled into the practices associated with catch and release salmon. In concluding this subsection and moving to the catch and release

salmon, I draw from a report by Gardener Pinfold (2011): “all legal and illegal forms of fishing commercial, recreational, or First Nations (Aboriginal) reduce salmon numbers. Some restrictions on fisheries protect large spawners or prevent certain harmful gear from being used. [Currently] recreational fisheries are increasingly required to release live salmon back into the water instead of retaining them” (p. 7). It is undeniable that the practices that articulated the commercial salmon were harmful to the population of salmon as a whole, however, as I will argue below, catch and release is not the only alternative in defining salmon futures.

4.3 The catch and release salmon

The catch and release salmon is enacted by the practices associated with recreation and sport fishing. As with the commercial salmon, these practices link actors far beyond the rivers and coastal waters of Newfoundland and Labrador. Hustins (2010) has written a comprehensive book on the history of recreational salmon angling in the province, which details the rise of the mighty “King of the Rivers” (Figure 4.3) to the conservation and management strategies as well as a general ethos that enacts what I refer to here as the catch and release salmon. These practices enact the catch and release salmon both singularly, i.e. as a specific salmon that encounters the end of an angler’s line, and as statistical aggregate, such as through the overall conservation ethic presumed by catch and release proponents in preserving the integrity and abundance of the salmon stock (population) on the Gander River. These practices are now articulated in official DFO policy and the imagination of conservationist-minded anglers – and perhaps those who characterize themselves as environmentalists- over the last 50 years (Wulff, 1992; Hustins, 2010). With this sport – turned conserved – salmon in mind, I will describe the practices and actors engaged in performing the catch and release salmon, which have been derived from field

interviews and my presence on the river, as well as fishing literature and archival materials specific to recreational Atlantic salmon fishing in Newfoundland and Labrador.

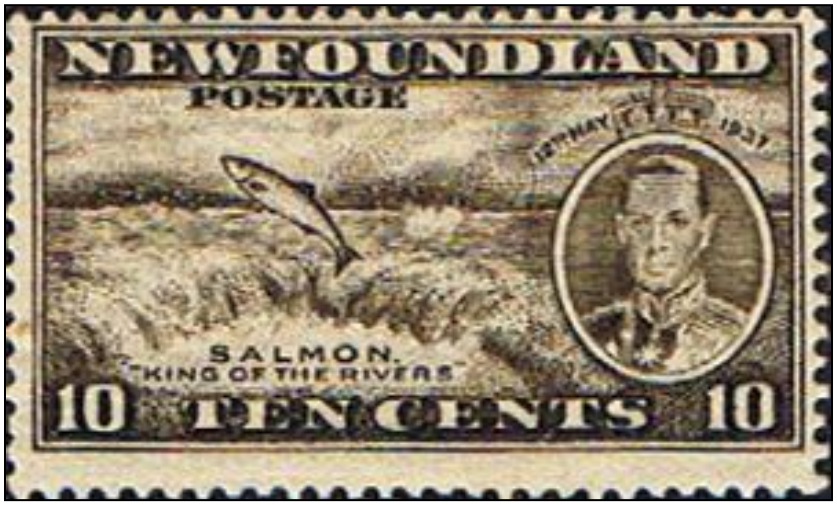


Figure 4.3 Salmon "King of the rivers" (Retrieved from Hustins, 2010)

4.3.1 Lee Wulff and the conservation connection

Angling on the Gander River, and all scheduled rivers in Newfoundland and Labrador is restricted to the practices associated with fly fishing. Fly fishing is not the easiest method for individuals to learn, and compared to catching fish with baited hooks or setting a net across the river, it is certainly not the easiest method of retaining a salmon. Fly fishing requires "a greater delicacy of movement, more accurate timing and the coordination of both hands in casting, stripping and shooting the line" (Wulff, 1958, p. 32). It gained increasing popularity in North America during the 1940s and 1950s because North American rivers tend to permit public fishing and access more so than European counterparts, which were for the most part were leased rivers (Wulff, 1958). Thus, in North America, fly-fishing represented a sophisticated sport in which a diverse range of society, though primarily men, could participate in addition to the highly affluent.

A key actor in promoting sport fishing on the island was Lee Wulff, an American sportsman and activist, who has been proclaimed as the 'father' of modern fly-fishing and the Atlantic Salmon Federation (Hustins, 2010). In addition to his widely-popular innovations of fly-fishing technology, Wulff did much work to promote the conservation of Atlantic salmon and has been celebrated as a "pioneer in catch-and-release fishing, believing that game fish like Atlantic salmon were too valuable and precious to be caught only once" (ASF, 2012). In the late 1930s, Wulff arrived in Newfoundland, where he was appointed to the Newfoundland Tourist Board (Wulff, 1958). During this period he promoted big game fishing[72] and Atlantic salmon angling to an American audience. In an address to a local Rotary Club, Wulff stated: "there is no comparison between the amount of revenue derived by the government for each salmon netted as compared with that gained from a tourist for each salmon he catches" (cf. Black, 2010, p. 278). This was a period where Newfoundland was branded as a place teaming with Atlantic salmon and pristine and rugged salmon rivers, woods, and 'country' (Hustins, 2010).

The overall ethic of those practicing salmon fly-fishing, and in particular catch and release, is intimately linked with salmon conservation (e.g. Keeling, forthcoming). In terms of salmon conservation, Wulff is also significant in this story as far as his disdain of two practices in particular that he saw as significant shortcomings in Newfoundlander's treatment of salmon and ultimately damaging towards the recreational fishery and the health of the salmon stocks as a whole. First, as a conservationist, Lee Wulff believed that the Atlantic salmon should be declared a game fish, free from commercial exploitation (Wulff, 1958). Second, Wulff disapproved of the technique of jigging practiced in Newfoundland, largely because it was too easy to catch salmon

[72] That is catching large marine fish such as tuna.

this away and he considered such a practice to be very unsporting (Wulff, 1958).[73] The fly-fishing sporting ethic, emerging alongside a conservation rhetoric, is a key aspect of fishing identities on the Gander River.

4.3.2 Materials

How is the catch and release salmon enacted? As suggested, this fish has close ties with both sport and conservation, which in turn, are linked to economic development and watershed management on the Gander River. The main human actors associated with the catch and release salmon include: policy makers, those involved in the management of the 'resource', and the anglers, while the chief non-human actors include: the river, the weather/climate, fishing gear and of course, the salmon. The network and practices holding the catch and release salmon together will be investigated through the materials and qualities attributed to and comprising the catch and release salmon. It should be noted that these are overlapping categories, and the catch and release salmon itself is not an entirely discrete category of being- in fact these are very messy and convoluted practices from which I have attempted to describe as three *different* kinds of salmon.

The practices that enact the catch and release salmon are associated with the specific materials and methods of angling that allow fish to be caught and subsequently released. While there is a substantial volume of literature -in the form of books, magazines, open line radio and other televised programming, blogs- dedicated to fly-fishing and the science of catch and release, I will focus on a few sources as they relate to the Gander River specifically and catch and release more

[73] This latter point is fundamental in the marginalization of third salmon, the willful fish, as a fish that is well cared for.

generally. The materials enacting the catch and release salmon include: rods, lines, flies, hooks, landing nets and to a lesser extent the Gander River boat, which will be discussed in greater length in the next section.[74] Key in the discussion of the materials is an elaboration of those fishing techniques, which bring this fish into being.

Fishing tackle and "playing the fish"

The Atlantic salmon has been described by Wulff (1958) and Anderson (1985) as a superior game fish. The key to salmon angling is a process referred to by anglers as "playing the fish", which requires a specific set of materials including a rod, reel, line and flies. The techniques of salmon angling are also fundamental to this process, both in setting up and maintaining one's tackle but also in casting the line and timing during this play.[75] The gear required in angling salmon has as much to do with *playing out* a particular fish as it does in physically coming into contact- or landing- the fish whereby the angler can claim to have successfully *caught* the fish. The distinction being, however obvious, that a salmon on the line, regardless its state of energy and vigour, can break the line or otherwise escape capture, thus foiling the angler's efforts at landing the fish.[76] As such, the angling gear has been explicitly developed to increase the

[74] For those anglers who engage in catch and release fishing on the Gander, a river boat has been cited as a key part of the practice, however, it is decreasing in significance in recent years with increasing vehicular access down to the banks of the river, meaning that there is an increased likelihood for anglers to stand directly in the river as they are fishing. The significance of the river boat to catch and release on the Gander River will be illustrated further in a later section. The main point being that there are particular materials required in the act of getting to the river in order to start fishing.

[75] For the purpose of this paper, the focus is on gear and the practices of landing and releasing the fish more so than casting and the setting up of gear. As a non-angler especially, a comprehensive review of the technique of angling as whole here is outside the depth of this report.

[76] However, it is worth noting that there is much excitement for an angler when the salmon takes the fly, and becomes hooked. These incidences are also talked about with some zeal on the river, depending on the level of experience of the angler or how few salmon are reported to be on the river, though less so than the salmon which are landed.

angler's effectiveness in successfully playing out the salmon – thus diminishing its energy to the point that it can no longer struggle against the hook and line, and the angler on the other end.

One of the main pieces of fishing gear is the rod. Wulff (1958) states "the rod has two main purposes: to cast the fly and aid in the playing of the fish" (p. 50). As with any other technology, the fishing rod used in salmon angling on rivers has evolved greatly over the last century. Fly rods are made of various materials. Historically, they were constructed of solid wood, but by the turn of the 20th century split bamboo rods came into popularity (Wulff, 1958). Split bamboo rods were significantly lighter and shorter, and thus, more versatile than solid wood rods and these features drove innovation of the rod, from split bamboo to metals, such as tubular steel and beryllium copper, to solid glass fibres and hollow glass rods being the preferential material in the mid-1950s (Wulff, 1958). The rod, which is used exclusively by anglers I came into contact with on the Gander River, is arguably a vehicle for two even more fundamental pieces of kit in salmon angling- the reel and the line.[77]

According to Wulff (1958) a good reel is crucial to salmon angling: "no other part of the angler's equipment is more important in playing a fish nor requires more precision in its manufacture and dependability in its performance" (p.55). In terms of their most basic design, reels are constructed from metal, whereby a spool sits upon a steel shaft, with the inner spool surfaces ride directly on the shaft (Ibid). Their effectiveness, as with a rod, lies in both their lightness and strength (Ibid). The reel's importance lies in the fact that "the runs of the Atlantic salmon are long and fast- they create a serious test for any reel…Any failure to operate perfectly usually

[77] The rod effectively defines the angler, in the sense that one cannot go angling without a fishing rod (or pole as it is sometimes referred). Other means of acquiring salmon (e.g. netting), may have been used on the Gander River, but where these practices are illegal and punishable by law, they are not something I witnessed during my fieldwork, nor were they practices which participants admit to engaging in.

results in the fish's escape" (Wulff, 1958, p. 55). Wulff argued that even given a poor rod, weak line and improper hook, a good reel may make the difference between landing a salmon versus letting it go. As such, the reel needs to be well constructed and carefully maintained – namely through consistent cleaning, oiling and replacement of broken parts, by the avid angler.

The reel provides the angler with give and take when playing out a salmon. Too much give- or letting the line out too far means that the angler has to do more work in following the fish. Yet if one pulls in on the line too aggressively, before tiring the salmon, they run the risk of snapping the line. Balancing this give and take is a key aspect of effectively wearing down the salmon's energy to the point it can be landed (Anderson, 1985).[78] Once the salmon's energy has been exhausted, the angler can physically collect the salmon with a net, a tailer (a noose like device that is slipped around the fish's body and tightens around the tail), or a pair of cotton gloves (Anderson, 1985).

The line is of obvious importance to the practice of angling. It literally connects the fish, via the leader, hook and fly, to the angler's efforts of reeling in the salmon. Wulff (1958) describes lines during the 1950s as typically made from nylon and silk, while some lines were "impregnated" or coated with plastic. The weight of the line, measured per unit length, determines its strength – as follows: the heavier the line the stronger it is, which would have obvious benefit when fishing for an Atlantic salmon. However, the heavier the line, the more difficult it is for an angler to effectively cast it, coupled with the concern brought up a number of the anglers with whom I spoke that the heavier lines (and leaders) were less effective because the salmon could

[78] Understanding this balance comes with experience- Anderson (1985) suggests that it will take, on average, two minutes per kilogram of salmon for an experienced angler to land the fish, whereas it could take a novice angler three to four minutes per kilogram, if not longer.

potentially see them or they would sink rather than float along the surface of the water, and thus, the salmon would be uninterested in the bait. The leader is a thinner extension of the line, with one end attached to the line and the other the hook. According to Wulff (1958) the leader is designed "to go as far as possible in creating the illusion that an angler's fly is a swimming, floating or drifting insect, completely independent of the tackle" (p. 64). Because mature Atlantic salmon, unlike juvenile parr, are attracted to small bait relative to their size, it is important for the leader to provide this greater level of deception.

Two further pieces of gear required in baiting and hooking are the fly and the hook. The main purpose of the fly is to deceive the salmon into thinking that there is some form of prey- typically an insect- floating or drifting at some point of the water column. A wet fly type typically sinks, with the purpose of resembling an aquatic insect and the dry fly is intended to stay on or near the surface of the water, with the dry flies being preferential to Lee Wulff and his angling devotees (Wulff, 1958; Anderson, 1985). This is because Atlantic salmon favours the dry fly, as indicated by their relative interest and attraction towards them (Wulff, 1958; Anderson, 1985). The fly is typically moved once it has been cast in order to give the illusion of a living insect, either through the angler slightly twitching the rod or the nature of the artificial fly itself. This is key in luring the salmon to the hook, another insight provided by Wulff (Black, 2010).[79] While the flies' purpose is to attract the unsuspecting salmon, the hook obviously has an entirely different function.

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[79] Wulff has been described as an innovator of a series of dry flies, which he developed on the rivers in insular Newfoundland- those of particular use on the Gander River are: 'Brown Bomber', 'Brown Wulff', and 'White Wuff' (Anderson, 1985). While some interview participants and anglers on the river suggested that they make their own flies, Wulff designed flies have been said to significantly improve salmon angling on the river, which has also been noted in the Atlantic Salmon Journal and angling guides such as Anderson's *Atlantic Salmon and the fly fisherman* and Wulff's 1992 *Salmon on a fly: the essential wisdom and lore from a lifetime of salmon fishing*.

The hook is a small metal, often steel, piece of kit attached to the line, upon which the fly is attached.[80] The purpose of the hook is straightforward: to keep the fish attached to the line so the angler can begin playing out and reeling in his or her catch. The most crucial point, suggests Wulff (1958), is that an angler maintains sharpened hooks, as dull hooks will simply slide over rather that pierce the flesh. Another significant development in hooks since Wulff's time, largely because of his influence with Atlantic salmon conservation and catch and release, is that use of barbed hooks is no longer legal on scheduled rivers in Newfoundland and Labrador. Barbless hooks, compared to barbed hooks (Figure 4.4), are more easily removed from the salmon's mouth, which is of particular relevance if one is releasing the salmon after it has been landed. Additionally, legislation requires the use of single hooks and artificial flies exclusively (DFO, 2014b) as opposed to bait, such as worms.

Fig 4.4 Barbed vs. barbless hooks (Losee, 2013)

[80] As with the other pieces of gear described, hooks come in a variety of sizes and are used with different flies depending on the species of fish being targeted, but also river conditions: such as channel flow and size and general water levels (Wulff, 1958).

Landing and releasing technique

> While releasing of salmon is gaining popularity, it is still sufficiently novel to make many people sit up with disbelief. Why should anyone who has fished for so many long hours merely release the salmon? Why, indeed! Recently when fishing with Ehor Boyanowsky on the East River in Nova Scotia, Ehor carefully released a nice grilse in a pool lined with fisherman. One incredulous native of New Glasgow, as he observed what was about to transpire implored, "aren't you going to eat that fish?" to which Ehor retorted, "you mean you can eat these fish?" (Anderson, 1985, p. 95).

There is an abundance of literature outlining catch and release techniques for the Atlantic salmon (e.g. Wulff,1958; Anderson,1985; DFO, 2014b; ASF, 2012), which beyond those angling techniques previously described require specific attention here to both landing the salmon and releasing it. In terms of landing the salmon, the 2012/13 Angler's Guide recommends that anglers refrain from using a tailer, as it can cause damage to the salmon. The landing net should be constructed with a knotless cotton mesh, as this will do minimum damage to the salmon's scales, gills and eyes (DFO, 2014b). Netting the salmon can be quite a difficult task for an amateur angler. Both Anderson (1985) and Wulff (1958) emphasize the importance of a skilled guide in assisting an angler with netting a salmon. As previously stated, the salmon should not be beached when practicing catch and release, and when landing the fish, it should remain in the water as much as possible (Anderson, 1985).

Once the salmon has been landed there are a series of procedures recommended for its *safe* release. Anderson (1985) provides four recommendations: 1) subdue the fish quickly, 2) do not beach the fish, 3) leave the fish in the water, and finally, 4) remove the hook carefully by twisting it gently, or if required, clip the leader, which would result in losing both the hook and the fly. Subduing the fish quickly is important as it prevents dangerous levels of lactic acid from building up in the salmon's system due to stress and exhaustion (Anderson, 1985), a point that

remains unaddressed in the Angler's Guide and on the ASF website. Not only does this require that an angler is able to adequately discern how much playing out is too much, it also confounds the notion of "playing out" the fish entirely, as the exercise is to reduce the salmon's ability to escape capture, regardless of whether it will be subsequently released or not. Additionally, when the water temperature is above 20 degree centigrade it increases biochemical stress on the salmon's system, and releasing fish in water higher than this temperature increases salmon mortality (DFO, 2012).

The second and third points point to the importance of keeping the salmon in the water. This is less stressful for the fish, but also better ensures that the protective mucous membrane on the salmon's scales is left intact (DFO, 2012). Additionally, keeping the salmon in the water poses less risk to any pressure on its internal organs posed by gravity once it has been removed from water (DFO, 2012). The Angler's Guide suggests that once the angler has caught the salmon, to the point in which he or she has successfully landed it, then they should move to steady, slow flowing water (DFO, 2014b). This, in theory, will allow the salmon time to recover, and by holding the salmon gently, in its natural swimming position, facing upstream, oxygen will flow over its gills and re-circulate through its system and increase the chances of the salmon's revival (ASF 2012; DFO, 2014b). Patience, on the part of the angler is a crucial component of the salmon's survival at this point in the process (DFO, 2014b). It should be noted here that moving to steady, slow moving waters depends on the angler's ability to move to these areas from the rapids, or rattles as they are referred to on the Gander River, a point to which I will return to in the next section.

The removal of the hook from the salmon's mouth, or at least the release of the salmon from the line can be achieved in two basic ways. First, the hook can be removed either with one's

forefinger and thumb and twisting it out or with a set of pliers (DFO, 2014b). Wulff (1958) states that the hook can usually be removed from the fish, without removing the fish from the water:

> If the fly can be reached readily, and the angler can get a firm grip on it, either with the fingers or with pliers, the hook can be pulled out with a quick yank. With a good finger grip on the shank of the hook, in the case of a grilse, the lifting of the hook, point down, bend up, may even the lift the fish clear of the water. A shake of the hand or a shake by the fish usually separates the two quickly… Barbless hooks with a bend instead of a barb make releasing the fish a simple matter. (167-8)

The Angler's Guide does not recommend that the salmon be removed from the water, and should the removal of the hook become complicated, the most reliable method of releasing the fish is to cut the leader. Again, Wulff (1958) suggests: "there is much discussion of the hurt done to fish while they are being released. The surest way to release a salmon is to cut the leader and lose the fly. The hook will not hurt him seriously, and he will work it free in time" (p.167). The major drawback with this latter method is the loss of the fly for the angler, and that the salmon retains a foreign object in its mouth for an unspecified period of time.

Two additional components of the catch and release process discussed in the Angler's Guide and by the ASF are photographing the wild Atlantic salmon, and measuring the size of catch. These features are integral to the anglers' enjoyment in the sport and allow him/her to; share (or boast) the size the catch as a point of pride. While photographing the salmon, anglers are encouraged to support underneath the belly of the fish, ensuring that the fish remains in the water, or at very least is only outside of the water for a maximum of five seconds (ASF, 2012) (Figure 4.5). The practice of holding up the salmon out of the water by its tail, while popular in the past, is currently discouraged by DFO (DFO, 2014b). In terms of measuring the size of the salmon caught, anglers are encouraged to use a metre stick, or even their rod to estimate. The ASF has created a length/weight table, called the "Salmometer", which allows an angler to estimate the

weight of the salmon once its length has been measured (ASF, 2012). Weighing a salmon in catch and release angling is not advised because it can result in injury of the fish (DFO, 2014b).

Figure 4.5 A catch and release salmon being guided into the water (Taylor, 2011)

4.3.3 Qualities

The qualities of the catch and release salmon are related to the values of sport and recreation, but also to the priority of conserving the Atlantic salmon species. The catch and release salmon is enacted as a recreational object, whereby its value is associated with that of the sport of salmon angling. Here, an angler engages in a "fight" with the salmon, which involves playing an individual salmon to the point that it tires, enough so that it can be reeled into the angler. Here, it is assumed that the angler enjoys this pursuit, and there is much written on the therapeutic value of such recreational activities for those (humans) participating (e.g. Smith, 1980; Wulff, 1992; Black, 2010; Hustins, 2010). However, one element which separates catch and release from salmon angling in general are the particular techniques used to release the fish, as discussed

above. The logic of releasing the fish, despite engaging in its capture in the first place is the primary concern of this section. It is important to note that these practices produce an Atlantic salmon which has by and large trumped other enactments of salmon on the Gander River- particularly in terms of conserving and caring for the salmon.

While this analysis does not provide a comprehensive survey of angler motivations for participating in catch and release, the process itself is fuelled by both the pursuit of salmon fishing, that is, catching the "King of the river", and the survival of those salmon which have been caught and released. Releasing an individual salmon after it has been caught is justified by the belief that the species, as whole, will survive into the future if individual salmon are released as opposed to retained and killed. As such, in catch and release practice care is assumed by the live release of those salmon bodies who find themselves attached to the hook and the end of an angler's line (Figure 4.6). However, showing care for a particular salmon body – as far as the salmon's own quality of life is concerned – is confounded by statements such as Wulff's (1989) "a good game fish is too valuable to be caught only once". This notion, that an individual fish is too valuable to be caught only once, which is akin to saying that a good game fish, such as the salmon, is also too valuable to go uncaught, presents a different, although related image of a fish chasing its own tail (Figure 4.7). What this image suggests of catch and release practice as a whole is not as much concern for a particular salmon body – at least not as far as the stress and trials which angling poses to a single salmon who desperately struggles to get away – but care of the aggregate salmon bodies. In other words, concern and care is largely reserved for the entire population, population viability and sustainability of the Atlantic salmon species.

Figure 4.6 Atlantic Salmon Federation's live release logo – La Graciation- "the catch" (ASF, 2012)

Figure 4.7 Too valuable a fish to be caught only once (Heinsohn, 2010)

Another quality of the catch and release salmon is the strong association between the conservation of Atlantic salmon species and the practice of catch and release. Atlantic salmon conservation, in Newfoundland in particular, has been a growing concern for at least a century (Hustins, 2010). Anglers, especially those "sports" visiting from elsewhere, were described in early 20th century local editorials as taking tremendous volumes of fish – both salmon and trout – much more than deemed necessary (Hustins, 2010). Hustins (2010) states the term "river hogs" was used to describe those engaged in such practices, and as a result of this type of activity, the premise of catch and release took hold in some factions of the sport anglers.

With the announcement of the commercial salmon moratorium in Newfoundland, catch and release became a conservation policy of DFO in defining recreational fisheries of Atlantic salmon in the mid-1990s, including the establishment of catch and release only seasons (GRMA, 2003; Pers. Comm., IBRD). This is due to the logic that the future of the species depends on a well regulated and healthy stock of Atlantic salmon. As with the commercially caught salmon, the argument is that it is through the statistically aggregate form, that is, populations, where the Atlantic salmon can be managed through various means of counting including counting fences and tagging those fish being retained. The catch and release logic would suggest that the stock of Atlantic salmon can be sustained through releasing the fish that are being caught. As stated by one participant:

> I think [catch and release] has always counted as conservation because releasing fish, properly- which is not always the case, means that that fish is going to survive and that fish is going to spawn and so forth. Every dead fish is a dead fish is a dead fish and salmon stocks are at a low level, though they have come back since 2003, so anything that you can do from a management point of view to let more of these fish to stay in the system is the aim (Pers. Comm., SCNL).

In addition to conserving the salmon stocks, and the salmon "too valuable to catch only once," the catch and release salmon is enacted in such a way that suggests that killing is cruelty. The retention of an Atlantic salmon, and its subsequent death, is under this rubric unnecessary and cruel. As suggested by Buchanan *et al.* (1994), "the trend in experienced angling circles, particularly in the U.S., is toward hook and release. Pictures of dead fish are becoming rare in angling magazines and when they do appear they usually draw irate letters from readers" (p. 56). An article featured in the *Atlantic Salmon Journal* describes the current generation of young anglers as "generation no kill" (Ekich, 2008, p. 23). The no kill generation are pictured as growing-up with respect for the salmon, such that they are protected from the fatal practices of "hook and cook" (McAdam, 2008, p. 31). The rejection of salmon retention can also be associated with the idea it is "ungentlemanly" to take pleasure in killing for sport (e.g. Keeling, forthcoming); in addition to salmon death being damaging to the sport of recreational salmon angling because the potential threat posed to the salmon stock. The mantra, Ekich (2008) describes of this no kill generation is that "there's always a chance that you will it see again next year. If you let it go, there's always a chance" (p. 24). Thus, killing the salmon ensures that the particular salmon will not be seen again-except, perhaps, upon the supper plate. The catch and release salmon, by definition, is not eaten.

By preventing *unnecessary* death of individual fish the salmon stocks can remain healthy. Of course, the Atlantic salmon, especially the juvenile fish, are vulnerable to many non-human predators, such as cod, seagulls, seals as well as biophysical (often anthropogenic) fluctuations in their aquatic environment, all of which contribute to salmon mortality. For the purpose of this argument, it is the retention of salmon by an angler – or by a net– that results in an unnecessary and entirely preventable death of a salmon. Releasing the salmon properly is crucial in keeping

fish in the river system, thus, as outlined in the techniques above, improper technique can also result in the death of the salmon – and often does, after significant struggle, and perhaps multiple struggles, with one or more salmon anglers. Yet, the degree to which this is discussed by officials, at least in the context of regulations to safeguard against improper release of salmon and the reporting of salmon deaths as a result of catch and release, is highly contested (Pers. Comm., DFO 2).

4.3.4 Tensions associated with the catch and release salmon

There are a number of tensions arising from the materials and methods associated with catch and release salmon. The first involves the debate around mortality rates of salmon that are caught and subsequently released. As previously mentioned, there is a vast quantity of scientific literature exploring the rates of morbidity and mortality that catch and release poses on the Atlantic salmon (e.g. Booth *et al.*, 1995; Brobbel *et al.*, 1996; Tuffs *et al.*, 1997; Whoriskey *et al.*, 2000; Dempson *et al.*, 2002; Thorstad *et al.*, 2003; Arlinghaus *et al.*, 2007; Richard *et al*., 2012) in addition to editorials and open line discussions (e.g. Sampson, 2010; 2012; Furlong, 2013) regarding the damage that catch and release poses to the fish. These studies and public debate collectively suggest that the overall damage caused by catch and release on Atlantic salmon is scientifically indeterminate, but most certainly politically and culturally contentious (Arlinghaus *et al*., 2007). For this reason, catch and release is the issue that garners the most tension within the Salmonid Advisory Council (SAC), the multi-stakeholder advisory board that reports to DFO on recreational fishing of Atlantic salmon and trout species (Pers. Comm., DFO 2). The reaction towards catch and release fishing in the interviews conducted for this study was also varied, with some supporters, who stated that there was no scientific evidence to support the claims that it was damaging to the fish stocks. On the other hand, opponents, who were often more active

anglers,[81] argue that catch and release is in fact killing fish. Many local anglers I spoke with suggest that this is primarily due to the shock the fish sustained while being caught and then released.

In addition to debates on catch and release and salmon mortality amongst scientists, policy makers, and those anglers situated on the Gander River, there is a second tension around how much the salmon should be played out versus being safely handled throughout being caught and then released. On the one hand, the materials used in catching the salmon serve the purpose of playing out the salmon for as long as possible. At the same time, attention is focused on practicing catch and release in a safe way so the individual salmon will survive post-release. When catch and release is done 'properly,' the salmon is initially hooked and brought in as efficiently as possible, although as stated previously, the salmon must be tired otherwise it will snap the line (Wulff, 1958; ASF 2012). Once the salmon has tired and reeled in to the angler, the angler must not remove the salmon from the water at any period while it is being released (ASF, 2012). By "efficiently" catching the salmon, that is, by not over playing the salmon, the damage posed to its internal organs is minimized, and keeping the salmon in the water at all times ensures that the mucous membrane on its scales is not disrupted, which increases the salmon's chance of survival after release.

However, this care is contradicted by the materials and methods used in catching the salmon, particularly the line and leader. Interviewees pointed out that because the Atlantic salmon is such a powerful fish, catching it using a rod and line requires that anglers play the fish, gradually

[81] There are "sportsmen" and other locals who catch fish via angling for the sole purpose of eating the salmon. In many cases, interviewees suggested that they were required to angle the salmon, as opposed to using a net, by law- but their intent in catching food has remained consistent.

tiring it, until it can eventually be reeled in. Should the angler try to reel the salmon in immediately, the salmon will snap the line and swim away. The gauge of the line and leader is critical here, because one might ask, why not simply increase the thickness of the line and leader such that it will not snap and the salmon can be brought in more readily? The problem is that both the line and leader need to be light enough to float, otherwise the mature salmon will not be attracted to the bait. Thus, in order to hook the salmon, the lure must be floating on a light leader, which is attached to a light line. In order to catch the salmon with a light line, the angler must play it out until the angler can reel it in without running the risk of breaking the line. In terms of releasing the fish without removing it from the water, it is possible to do so under some circumstances;[82] however, this does pose challenges in effectively documenting the size of the catch, which to some extent still plays into the appeal of being an accomplished angler (Pers. Comm, RES 2).[83]

Finally, the practices of catch and release enact a fish that will continue to live after being caught. Killing a catch and release salmon is vilified because retaining the Atlantic salmon at the point that one is on the end of an angler's rod contributes to the reduction of salmon stocks and represents a threat to the future of the salmon. Catch and release in this way provides an opportunity for an angler, as an individual, to "recycle" the salmon (Figure 4.7). According to Graeber (2012) the term recycle, which first appeared in English in 1926, was used as a specific term for describing a technical process in oil refining and other industrial processes. However,

[82] Not from a river boat, but this will be discussed in the next section of this chapter.
[83] Photographs of live releases can be used for conservation purposes, particularly in terms of image sharing via social media, but also website such as ASF's live release photos (e.g. http://www.asf.ca/your-live-release-photos_1.html)

over the course of last 50 years, it has become a moral sentiment of individual consumers and households. Graeber (2012) states:

> it's significant, too, that in becoming a moral imperative, rather than a technical term, the word also moved away from its earlier reference to industrial practices to refer to the behaviour of individual consumers. And this is despite the fact that consumers produce only a tiny proportion of the world's waste (p. 281, emphasis added).

While in the above passage Graeber refers to recycling otherwise used, extraneous or "waste" products such that they are diverted from landfills, the expansion of the term from its original use serves a specific purpose. That is, the role of recycling has shifted to become a part of the responsibility of individuals. It is up to individuals, as consumers and as anglers on the Gander River, to preserve the environment, waste less and protect the stock of Atlantic salmon.

This, of course, is a troubling proposition given that anglers on the Gander River are in contact with a minute proportion of the total population of Atlantic salmon.[84] According to one interview participant, the past two decades have been marked by increased downloading of responsibility by the federal and provincial governments onto river users, despite processes that extend far beyond the Gander River. This participant goes on to state:

> [Netting on the Gander River] no doubt had some effect [on salmon counts], some was the invention by the US, the submarine, when they got the nuclear powered submarines that could go under the ice cap we got up in the Arctic and started going under the ice cap. One of the first things they saw was all these things they couldn't have known what it was first hanging off the bottom of the ice and then they found out it was salmon, big salmon, this is where the monthly year run salmon were going to feed and they were feeding off krill and what have you that were attached to the ice floes. Once they realized what it was and they put it out as public knowledge that there was tens of thousands of salmon feeding, the Danes and the Norwegians started catching them off Greenland which was the main place. They started setting up base and catching them, they started to take the salmon when they were in the ocean not when they were coming in the bay and

[84] Or even the total population of the Gander River salmon

> the river, and coming in the bays and the mouth of the rivers they were controlled, the numbers, you could only have a net so long and it had to be certain conditions and especially in Canada and we produced a lot of fish, no doubt they were produced in the British Isles and Scotland and from the rivers over there too but Canada itself was producing the major portion of the salmon and Newfoundland in particular has most of the salmon rivers in Canada. And the Atlantic salmon acts quite different than the Pacific salmon and our rivers are smaller than rivers like Fraser River and that sort of thing and we produce, each river produces a smaller number of fish (Pers. Comm., LSD).

In tandem with increasing sophistication in fishing gear as well as the ability to locate Atlantic salmon, the above passage demonstrates that there are specific instances where massive volumes of Atlantic salmon could be harvested. Likewise the geopolitics surrounding the harvest of the salmon extend far beyond the jurisdiction of the Gander River, the province of Newfoundland and Labrador and Canada, despite having direct impacts on these places. Thus, it is difficult to suggest that catch and release and the "recycling" of Atlantic salmon on the Gander River is tantamount to the preservation of the population as a whole.

4.4 The willful salmon

I came across the practices that enact a third salmon – the willful salmon – after I set out on fieldwork in Glenwood and Gander Bay. Recognizing this fish was a gradual process for me. In hindsight there were certain conversations and interviews, particular incidents when people spoke to the spaces in between my questions where this salmon was most pronounced. We[85] also went out to see the river, to ride over the rattles and steadies and to camp along the banks, because, as stated by one individual, there was little point in studying the river without actually going on it. In short, the willful salmon is not a fish that I would have come to learn through

[85] Graciously a number of people took me on river boat rides along the river, down from Glenwood and up from Gander Bay. My partner, Matt, and I also canoed down the river over a weekend in September of 2011, with subsequent visits to Glenwood over the past three years.

pouring over the archival materials, policy documents, conservation literature or by speaking only to those individuals who may have been best positioned to answer some of the specific governance and place-based development questions I posed in interviews (Appendix A). However, this fish, like the commercial salmon and the catch and release salmon, is born out of relational specificity that is historically produced, dynamic and materially embedded. This is a critical part of the interference in presenting multiple salmon reals. It is important to present this third fish here, in this particular way, because practices associated with this particular salmon are often hidden, rarely acknowledged. I propose that the telling of the willful fish as an ontologically legitimate entity helps level the playing field in which resource politics have played out and continue to play out on the Gander River. The willful salmon is a salmon whose will is acknowledged and respected during a fishing encounter, and once this salmon is caught, it is eaten. In this sub-section I describe those materials and qualities that hold together the willful fish.

4.4.1 Materials

Given the current federal regulations governing salmon fishing on scheduled rivers and non-scheduled rivers alike (DFO, 2014a), the willful salmon is caught using similar objects as the catch and release salmon. These include: a fishing rod, salmon-grade lines and leaders, barbless hooks, lures, and landing –or dip- nets. Likewise, the techniques for playing out a hooked salmon- whether an angler decides to release the fish it or keep it- remain more or less consistent across these two performances. The obvious, and critical, distinction, which I will discuss further in this section, is that the willful fish is intentionally killed once it has been landed (Figure 4.8), which lies in stark contrast to the salmon which is released after being caught (Figure 4.5). Those fish which are caught and retained legally must be caught with a rod, and each fish must be less

than 63 cm in length and marked with a tag through its gills, otherwise the angler in question will be penalized.[86] In the past, the practice of catching a few salmon for personal consumption was often achieved through draping a net across a portion of the river and catching a few fish that became tangled in the net. It is because of the federal laws governing salmon fishing that the practices enacting the willful salmon overlap with those enacting the catch and release fish. However, the willful fish can also be caught with nets and using live bait, activities which are prohibited by law. The critical practice in performing the willful salmon is that during a successful fishing encounter, the willful salmon is always killed. [87] The legalities, and the policies which make a fished salmon legal, only play a role in the enactment of the in the willful salmon in that it forces those who fish to abide by the rules outlined in the angler's guide; however, the willful salmon does not need to be, nor is it exclusively, caught legally.

[86] Retaining a fish over the legal size of 63 centimetres is technically poaching. Should a Fishery Officer, i.e. those persons who implement the DFO's *Fisheries Act*, catch someone with an illegally caught fish the punitive measures can include the confiscation of fishing gear, including boats, and any other vehicle that enabled the person to 'poach' on that occasion (Pers. Comm., GBIBC). Penalization ranges in severity based on the degree of infraction, but penalties can include seizing all equipment during the fishing incident, which may include fishing gear, boat *and* any vehicle used to get to the fishing site as well as fines (Gov. of NL, 2014).

[87] A successful fishing encounter can be defined as one that results in the fisher catching the fish.

Figure 4.8 Jim John, Brett Saunders and angler on the Gander River, circa early 1930s (Saunders, 1986)

Historically, nets were used on the rivers by individuals for the purpose of catching salmon for personal consumption, and while this practice is illegal on the island, it is continued in some Aboriginal communities in coastal Labrador (Pers. Comm., SCNL).[88] There has been a great deal written about the damage caused by individuals netting along the salmon rivers in insular Newfoundland, particularly by advocates of the recreational salmon fishery (e.g. Wulff 1958, Hustins 2010).[89] Likewise there has been a great deal of effort in terms of fisheries enforcement, especially in the last 20 years, by both Aboriginal Fishery Guardians and non-Aboriginal

[88] Nets were prohibited from Newfoundland rivers in 1902 through Department of Marine and Fisheries (cf. 1903 "Annual Reports", Hustins, 2010)

[89] This is individual netting, for personal or family consumption, as opposed to commercial netting. It is worthy to note here that there are a number of interview accounts of the damage done to a large number of salmon on the Gander River as a direct of result of netting for the purpose of scientific observation of the river, particularly through the 1940s and 50s (Pers. Comm. RES 2).

enforcement guardians, to reduce the use of netting on the river. Currently the act of netting, including being in possession of a net while on the river, is a violation under federal law and many would consider a blatant act of poaching (or intent to poach). While the use of nets certainly cannot be restricted to any particular group of people, either Aboriginal or non-Aboriginal persons, historically or otherwise, the nets themselves are an object that perform the willful salmon in a specific way. Nets have been the source of explicit political tension on the Gander River and provincially, as well as the underlying ontological politics revealing the salmon multiple.

When Tony John and cousin Jim John threw a net across the Gander River to argue for their right to the Aboriginal Food Fishery it caused an outcry by local river users, particularly the non-Aboriginal community. As stated in Chapter 1, the courts rejected their claim on the basis of a lack of evidence of Mi'kmaw pre-European-contact use of the Gander River and insisted that the John's did not have the right to fish on the Gander River with a net. Despite the positioning of "rights" ordained through the *Indian Act* or perceived by a general Canadian public as suggested by Lawrence (2009), the net thrown across the river by Tony John was more than merely a (highly divisive) political protest, although that is certainly how it was framed in the local news media (Hickey, 1995) and in participant interviews. Materially, the net is a key tool in removing fish from the river, such that people, and in this case Aboriginal people, could eat the salmon as they had done for generations. Curiously enough, Tony John, despite having lost the case, was given back the net by provincial magistrate after the proceedings- an entirely unprecedented occurrence in these kind of proceedings (Pers. Comm., MBM 1).

The net, and act of netting, with respect to the enactment of the willful fish points to two of its key qualities: salmon is food and salmon has a will (which will be discussed in detail below).

Certainly, the salmon can be removed from the river using a hook and line and "dispatched" (Anderson, 1985) using the proper tools and techniques (e.g. Harris, 2001; Keeling, forthcoming). However, netting the salmon is a much easier and effective process, thus less likely to result in 'error' by the fisher or otherwise.[90] Moreover, the fish are caught quickly, reducing the length of time and arguably the degree to which they struggle. As stated by one participant, when "a salmon caught in a gill net he doesn't last very long. They go mad, and...I would say that 5 minutes would be the longest time that they would last. They get caught by the gills. That is why they call it a gill net (Pers. Comm., RES 2)". The net enacts a salmon that is killed quickly and effectively, rather than being played out at the end of a fishing line. This is done because the salmon is food, which as will be described below is inextricably connected to care and reverence of the salmon, by those human actors involved with this fish. The risk of penalty largely precludes the widespread use of nets on the Gander River, at least as far as this investigation could derive.

Another object that defines the experience of the Gander River, not to mention salmon angling, is the Gander River boat (Figure 4.9). The river boats are one of the first things one can see when along the banks of the river when driving along across the river in Glenwood/Appleton and crossing Gander Bay at the mouth of the river. As described in a 1977 community development proposal, the home-crafted Gander River boats:

> [are] descendants of Old Town Canoes imported from Maine, [laying] impatiently along the banks of the Gander River. With keel, stem and stern of spruce, ribs or larch and plank of fir these boats are designed to meet challenges of rough waters and to carry full loads of 1500 pounds over shallow riffles. From the first days of settlement in Glenwood these boats were poled from Gander Bay- linking coastal villages and railway. Over the

[90] Such as a salmon breaking the line with a hook still embedded in some part of its body.

> years the boat was lengthened and a transom added for the motor to suit the need of the sportsmen (FNI, 1977).

Interviews and conversations in Gander Bay and Glenwood confirm that these boats "lay impatiently," as avid river users and salmon anglers eagerly await the opening of salmon fishing, or for the weather to be conducive to take a trip down the river to a cabin. The river boats have particular importance on the river from an angling perspective because they allow anglers to reach sections of the river that are otherwise unreachable from the banks.[91] For many anglers, either resident or visitors, angling on the Gander River north of Fourth Pond, and up from Gander Bay, requires use of a river boat as a means of personal transportation and to carry fishing gear.

Figure 4.9 Gander River boats at the mouth of Gander River

[91] Although this is rapidly changing with increased cabin development along the river, including the (illegal) maintenance of old forestry access roads by all-terrain vehicle users.

Despite the regularity of their use, the Gander River boat only functions (well) in the practices involved in the willful salmon, which presents a significant problem for catch and release on the Gander River. As articulated in interviews, the safe release of a salmon while in a river boat cannot be easily achieved. According to one interviewee:

> And they [catch and release proponents] tell you that you have to take it to still water, well if you are out there fishing on the current, it will almost drag your anchor. Then you've got to go 300-400 yards back up to the pond. How are you going to manage a boat and handle your rod? You see, this is where experience comes into it. It might look nice on paper, but it doesn't make sense (Pers. Comm. RES 2).

In many instances, such as angling in a portion of the river with a current, a salmon should not be released because it needs the still waters, found in pools, to recover from the shock of being played out and landed. If the salmon is released in an area with a current – either a rattle or a steady[92] – there is an increased likelihood it will drown. Whereas, retaining a salmon while angling in a river boat requires only a blunt object to kill the fish, and a cooler or basket to store it until it is eaten. This means the only salmon that can be done well from a Gander River boat is the willful salmon – releasing live salmon successfully is highly improbable from a river boat. Also, those practices articulating the catch and release salmon, particularly as a mode of conservation, *ought to* preclude the use of the river boat as the experiences of well-seasoned anglers suggests that it cannot be accomplished safely on the Gander River. In the remainder of this section I argue that understanding the enactment of the willful salmon positions us distinctly closer to what could be described as *good* care than in other previously discussed salmon.

[92] Vernacular terms used for the fast and slowing parts of a river, respectively.

4.4.2 Qualities

The two main qualities pertaining to the willful salmon are: its will and, once it is caught, its value as food. These qualities are interrelated and- as far as an individual salmon is caught with a hook and a line – this salmon enactment is singular in nature compared to the previously described salmon. That is, when the willful salmon is performed, it is an individual, and profoundly particular fish being caught and subsequently eaten. Prior to discussing the will of this creature, and how it is brought into being through the angler-salmon 'play', I will focus on the performance of this salmon as food.

As previously emphasized, the use of a net is not precluded in the performance of the willful salmon. As stated by one participant, the act of netting a few salmon provided not only physical nourishment, but also a cultural continuity:

> Growing up- you lived off the land- if you wanted a salmon, even though it was illegal in the eyes of people, you'd always go down to the brook and get a feed of salmon, and you didn't do it so you would take all of the fish, but you would go get a meal of salmon for yourself. Or get a moose. You take what you needed. It wasn't taken to sell or barter or anything like that. You'd take it for your own consumption (Pers. Comm., AFG 3).

Here, the salmon bodies provide the material substance for- in this case- human bodies to sustain themselves physically, although *a feed* itself has connotations beyond the seemingly banal act of ingesting food. In practice, the salmon which is caught on the Gander River is subsequently taken home, cleaned, cooked (Figure 4.10) and shared with others, namely family and friends, who participate together in eating this meal—or having a feed. The act of catching and eating salmon has been an important tradition among Mi'kmaq and non-Aboriginal people along the Gander River for generations. The salmon has fed people since they first started to trek into the interior of the island and then later set up settlement in Glenwood, and well before that time in

the case of the Beothuks. And while a formally established Aboriginal Food Fishery has never existed, this has not stopped people (Mi'kmaq or non-Aboriginal) from eating salmon for their own consumption, by any means they deem necessary. As described in one interview: "more recently I heard people express 'oh well, there was never a food fishery', but people as long as people have been living on the Gander River, they could always collect a feed of salmon on the river" (Pers. Comm., AFG 3).

Figure 4.10 A feed of salmon

Eating, despite being an entirely common and a regular task, is quite a profound act as far as intimacy and responsibility are concerned. Regardless of the human companionship around the

table – eating and ingesting are acts that are entirely dependent on the presence of others (Haraway, 2008; Mol, 2008b; Stratern, 2012). When Mol (2008b) works through the subjectivities of eating, she asks if "I eat an apple…is the agency in the *I* or in the *apple*? I eat, for sure, but without apples before long there would be no "I" left" (p. 30). There is a kind of transubstantiation that occurs in eating, where on a material level one is literally composed of the apple, and the apple becomes a part of the self. This would suggest that as agents, we are not solitary at all, but rather completely interdependent on the agency – in the case of our food – of non-human others (e.g. Strathern 2012), be that plant or animal. As argued by Haraway (2008) "no community [in the broadest sense] works without food, without eating *together*. This is not a moral point, but a factual, semiotic and material one that has consequences… Driven by [the desire for a 'pure diet'] a diner's only permitted food would be oneself, ingesting, digesting and gestating the same without end" (p. 294-5). This is to say that the willful salmon, because it is eaten, is intimately linked to the angler, fishing person, and all those who partake in eating it.

The salmon plays a fundamental role in this multifaceted experience of being nourished – as 'individuals" merely eating but also for the larger cultural traditions which exist on the river (e.g. Taylor, 2009; Arnold, 2011). Any given Atlantic salmon heading upstream has likely travelled great lengths to return to the same spawning ground in which left and it makes such a tremendous effort to do so, and for this reason, the salmon is revered by those who get a chance to catch it, or even catch a glimpse of it flicker through the air. The angler and the salmon share an intimacy as the angler struggles to land the fish, eventually killing the salmon once it has been reeled in within reach. The wilful salmon is killed for two interrelated reasons, which the angler knows all too well, the first is because the salmon is food; as Haraway (2008) states "there is no way to eat and not kill, no way to eat and not to become with other mortal beings to whom we

are accountable" (295). This certainly applies to the salmon and the angler on the river. Second, because the angler is responsible to the salmon, the salmon's will is taken into account. How this will is handled is further discussed in the next section, which will draw in part from Haraway's concept of companion species, using the case of the Atlantic salmon and the angler on the Gander River.

4.4.3 The willful salmon, the angler and care

Demonstrating good care is very specific and immediate to the practices that enact a particular reality (Mol, 2008a). Haraway (2008) suggests that this about being in relationship *with*- which is to say that good care, or any good for that matter, cannot be preordained or assessed from a position outside of the enactment itself. The human-salmon encounter, particularly the practices which make up the willful salmon provide a useful example here: for who is more familiar, more intimately tied to this interaction than the particular salmon and equally particular human facing each other at either end of the fishing line? Following Haraway's idioms the salmon and the angler are *companion species* that evoke *response-ability* through their encounter, which fundamentally brings them into being. Response-ability, Haraway (2012) states is a process where "becoming-with, not becoming, is the name of the game; becoming-with is how partners are, in Vinciane Despret's terms, rendered capable. Ontologically heterogeneous partners become who and what they are in relational material-semiotic worlding" (p. 4). Becoming-with does not necessarily entail a specified action, rather it unfolds through encounter, which- like the performances described throughout this chapter- brings about a particular reality. Here, not only is the willful salmon enacted, but so too is the angler as neither exists independent of their shared interaction. Related to the notion of community and cultural identity, some would argue that

salmon fishing, for Aboriginal as well as non-Aboriginal peoples, is an encounter which produces culture (e.g. Bull, 2009; Black, 2010; Carlson, 2010; Arnold, 2011; Collins, 2011).

Response-ability is performed on the Gander River as a lure (and hook) stirs a passing salmon's interest, to the point she (the salmon[93]) engages and the battle of wills continues.[94] This battle of wills is pronounced, from both ends of the line, and the angler may be equipped with the correct gear and technical knowledge, but as stated by one angler "for its size I'd say [the salmon] is the strongest fish in the water because there's no man [sic] that can hold a salmon if he wants to get away" (Pers. Comm., RES 1). The play can go one of two ways: the salmon will escape, either by struggling free from the hook, or more often the case, snapping the line and making away with the hook and lure. Or, the salmon will tire of the play. She will be *played out*. At this point, and only at this point, she will resign herself to the struggle, ceasing to fight any longer as the angler finally pulls her in to land. This is a willful salmon and because her will has been undeniably broken, among other reasons, the angler will land and kill her as quickly as possible. Good care in this situation is not necessarily attractive because it does involve the salmon being killed, but good care often offers little in the way of attractiveness (Mol, 2008a). A more attractive course, which is certainly touted by salmon conservationists, may be to release the salmon after it has been caught in a plea to conserve the statistical population. However, this is

[93] I have intentionally used the female pronoun, primarily because salmon are not necessarily "kings" of the river.
[94] Continues in the sense that salmon angling is largely a pursuit driven by patience, as the mere sight of a salmon flickering along the river, much less a hooked salmon, induces a flurry of excitement in anglers and would-be onlookers.

not especially caring for this salmon in particular, in terms of her will, her life journey, and the physical damage sustained to her body.[95]

There is a key difference in understanding the significance of playing out a fish between the catch and release salmon and the willful salmon enactments. Once the salmon is hooked she struggles to get free from the line and playing the salmon involves the angler successively pulling-in and letting out the line. The salmon is played out when she is completely tired – as stated by one interviewee:

> by the time you can get that salmon and pull it alongside to take the hook out of it, there's not too much life left in him, being sloughed and being beaten around, that takes the good out of it, you have to unhook the hook out of the salmon and let him go overboard and go on down, he's stunned (Pers. Comm., RES 1)

The salmon has been destroyed, not merely in physical sense, such a fish becoming placid, or after being gutted, demonstrating a tell-tale sign of having undergone severe distress with a burst gallbladder, which leaves remnant yellow fluid (Pers. Comm., RES 1). But the salmon, who has faced the angler at the other end of the line and struggled mightily, concedes defeat by abandoning the will to fight.

At the moment the willful salmon is landed, there is no option to simply release it back into the river. Physically and cognitively, the salmon has been worn down and worn out. For the angler in the willful salmon enactment killing is kindness. At this moment, the best thing for the particular salmon's *well*-being is to end its struggle, but also to acknowledge that the salmon has in fact given her everything to this struggle. While interviewees made no specific reference to the

[95] Nor has it been conclusively demonstrated that catch and release increases the likelihood of the health and survival the salmon population compared to the retention of salmon for personal consumption.

salmon "giving themselves" to the fishers, this claim is similar to that made by some Aboriginal hunters (Tanner, 1979; Brody, 1981).

The demands that are made on the angler and the salmon are reciprocating. They each struggle for victory – where success is marked by very different ends no less – but when the struggle is over in favour for the angler, then clear concessions are made. [96] In this way, I argue the willful salmon is cared for and done well on the Gander River. As stated by one angler, "the fall fishery is an experimental [catch and release] fishery I know, but there's a lot of salmon killed from that. I don't want to see anything destroyed; I don't like to see wildlife destroyed because I'm a hunter and fisherman right to the backbone" (Pers. Comm., RES 1). Living together, between the angler and the salmon on the Gander River, entails death for the salmon. The question then becomes how to go about this relationship respectfully and carefully. Of course, the answer is not absolute; rather, it requires the continued commitment on the part of the angler (and salmon) in working through the best ways for living and dying to occur – and accepting the consequences of these practices.

4.5 Conclusion

It is important that in the presentation of these salmon realities, that the reader not interpret the catch and release salmon (or the extinct commercial salmon) as a scientifically construed, rational and manageable entity- which actually exists, nor the willful salmon as simply a "cultural" product derived from an Aboriginal perspective, which subsequently must be tolerated in management decisions. Such interpretation would be based on the premise that one fish is

[96] The angler being successful in this context is itself a significant achievement, as successful catches are certainly the topic of local conversation and chit-chat amongst river goers and those about town in Glenwood and Gander Bay. In short, these are noteworthy occurrences.

more real, or natural, while the latter is merely a cultural belief. Each salmon enactment presented here- including the extinct commercial salmon- is both socio-cultural and biophysical in nature. One of the implicit goals of this analysis has been to break down this dichotomy- perhaps most importantly because such a division is the product of modern thought and has projected a rationalist ordering of reality that has by and large excluded any alternatives.

According to Arlinghaus *et al.* (2007), the perspective that catch and release is "common sense" from a managerial and conservation point of view "overlooks ethical issues with catch and release, cultural and legal conflicts associated with some forms of catch and release" (p. 77). But the stakes here are not simply a question of which perspectives – biological, social, cultural, ethical – dominate and come closest to the truth in understanding what is best for the Gander River and the Atlantic salmon therein. In this analysis I contend that there are different practices taking place in around the Gander River which, in sum, amount to distinct enactments of the salmon. That is, there are multiple salmon which is an entirely different proposition than simply varied perspectives of what is the best thing for the salmon. The catch and release salmon, while sharing some practices and qualities of the commercial and the willful salmon, is a particular material co-production of salmon, which cannot be reduced to contending "ideologies" or "perspectives" on the fish or these practices. This leads into my second argument: for those enacting a different kind of fish – a salmon that is ontologically distinct from the fish that is caught and released – death is not the ultimate cruelty. The willful salmon is intimately cared for in a way profoundly different from the conservation efforts applied to the catch and release salmon and the 'safe' care used in catching the salmon and releasing it back into the water.

Previously, the dominant narratives recognize the extinct commercial salmon, and the catch and release salmon, which is now associated with conservation, sustainability and rational

management. And for many, the difference between the catch and release salmon and the willful salmon, that I describe in this section, is merely a matter of perspective:

> It's as much about releasing those large fish as it is about educating the NunatuKavut Community Council (NCC) and the Metis about salmon resources conservation. Prior to our interactions, they never really understood much about management and biology, and I don't say that negatively, but that's the way it is. We had hoped to open their eyes about what sport fishing conservation is all about. And I'm sure they hoped to open our eyes, to say "this is why we net these fish". Because fly fishing for them is a total foreign thing. They laughed, generally speaking- because there are a few fly-fisherman- they'd say "what are you playing with our food for?" There is a real gap between their groups and our groups about understanding each others' views about what we enjoy (Pers. Comm., SCNL)

I contend, despite the interviewee's suggestion to the contrary, the difference between the catch and release salmon and the willful salmon is not the result of any lack of knowledge or education, nor even the *wrong* kinds of education. In other words, it is not about the meeting of divergent worldviews that need to be reconciled. Instead, I am arguing it is about incommensurable worlds: "the salmon" that the conservationist and the Aboriginal groups refer to is not the same thing, and the differences between these salmon realities can be found in the practices – through the uses of particular materials and quality attributes – which hold them together.

It is certainly true the study of 'natural resources' has historically limited the conversations to matters of perspective over a singular nature. Bridge (2009) argues that given recent advances in biotechnology questions regarding discrete categories of human (culture) versus physical (nature) emphasize a need within geography for non-dualistic modes of conceptualizing

resources.[97] Bridge and Bakker (2006) state that the real importance of hybridity to resource geographies is not "in the figure of the hybrid entity itself, rather it lies in —the relational and distributed view of materiality that provides a way to unpack apparent permanencies and stabilities, and to show how the competencies and capacities of things are not intrinsic but derive from association" (p. 16). In other words, the day to day practices articulating how 'things' are enacted, and in this case, the salmon on the Gander River, are critical in understanding the larger resource politics.

I have deliberately moved towards questions of the ontological in this analysis because as argued by Woolgar and Lezaun (2013), the turn to ontology- "stimulates an alertness towards forms of difference that cannot be reduced to a disparity of 'worldviews'" (p. 322). The differences between the various salmon realities cannot be simply translated to fit a singular understanding and enactment of salmon, although there is the deep desire to do so when it comes to resource management, planning and development and, in some cases, even in community and place-based development as described in the previous chapter. So, what is there to be done going forward? One possible answer is that the analysis I have provided in this chapter has accomplished what it has set out to do- demonstrate that the salmon are multiple (Mol 2002). Another response to where to move from here, is the normative work that STS grapples with: that is, a kind coordination work or "practical work of alignment that creates a commensurate world" (cf. Cussins, 1996, Woolgar & Lezaun, 2013, p. 323). Mol (2002) suggests that this task is overlaying realities in productive ways, which requires situated experimentation or 'tinkering' to ascertain the best possible outcomes (Mol, 2002; Haraway, 2008). However, the research

[97] This conceptualization is reflected in work such as Castree's (2001) 'social-nature', Whatmore (2002) on hybrid geographies, and Swyngedouw (1999) on the importance of the *process* of hybridization, not to mention the groundbreaking work by other scholars such as Haraway (e.g. 1991) and Latour (e.g. 1993).

demonstrates that wherever this choreographic work does achieve some kind of commensurate world- for however brief a time- these achievements are highly fragile and are often fraught with friction that such an overlap often entails (Mol, 2002; Brives, 2013; Woolgar & Lezaun, 2013). A further normative dilemma facing STS scholars, and others, including place-based development practitioners and policy makers, is that "a plurality of worlds forces a [stark] *cosmopolitical* choice: in which world would you like to live, and what can you do to bring such a world into being" (Woolgar & Lezaun, 2013, p. 326).

Finally, the decisions around what is good for the Gander River must move away from so-called 'matters of fact', particularly those conceived strictly within the realm of science, and towards a more "powerful descriptive tool that deals this time with matters of concern and whose import then will no longer be to debunk but to protect and to care" (Latour, 2004, p. 232). Doing good for the river, insomuch as caring for the river, cannot be expressed through bare facts and arguments- but through experimentation with possible goods, by overlaying realities in productive ways (Mol, 2002). In doing so, we must *slow down reasoning* (De La Cadena, 2010), and go about tinkering – to see where points of contention, convergence and partial recuperation emerge among these salmon – not in order to line them up and find 'common understandings', but to acknowledge and keep track of these differences. In Haraway's (2010) terms, we should strive for "staying with the trouble", which can be defined as a commitment to "the more modest possibilities of partial recuperation and getting on together" (p. 2). This requires a commitment to seeing things through, to accept responsibility for the consequences for particular action (or inaction), because there will always be some form of consequence in living together, and the ability to change one's mind in the face of new evidence, scientific or otherwise. These may

seem vague, but that is precisely the point: doing a good thing, and providing good care is an achievement of a very specific scale (spatially and temporally).

Although, one good that this project may offer through asserting ontological multiplicity is "the permanent possibility of alternative configurations...there are always alternatives. There is no [river]-isolated that may offer us a place beyond doubt [of alternatives]" (Mol, 2002, p. 164). The exposure of alternative realities is essential in challenging the hegemonic force of the modern/rationalist thought. The presentation of the three salmon performances- of the salmon multiple is critical in understanding resource politics as they unfold on the Gander River. This contribution is of theoretical importance to the praxiographic and place-based development literatures; however, I cannot offer policy direction outside of the specific analysis offered here. That is, implementing good care – and doing well by the river and the salmon – can only be achieved through carefully attending to practices and the consequences on the river.

So how could care be expressed on the river? In their analysis of care in practice, Mol *et al.* (2010) state that an ethics of care is not about the universal good, but rather it is about handling and working out specific problems with local solutions. In care practices "it is taken as inevitable that different 'goods' [such as, justice, fairness, kindness, compassion, generosity] reflecting not only different values but also involving different ways of ordering reality, have to be dealt with together" (p. 13). These goods, Mol *et al*. (2010) argue, are considered in relation to other goods as well as other norms, be they professional, technical, economical or practical, which are not separated out from concerns of the ethical. The ethical and doing the good is both deeply contextual and relational.

In the context of the Gander River, specifically for the Atlantic salmon, I have argued here that killing is care in practice. The catch-and release modality, spearheaded by Lee Wulff and taken up by the mentality that the Atlantic salmon is too *valuable* to be caught once, has led to many catch and release salmon being dragged up from the water, after having struggled to break from the fisher's line, only to be released again – in a form of a beaten fish. The *value* of this fish lies is in direct relation to the value of fishers having an enjoyable time on the river, with ties to the conservation of the Atlantic salmon population. Given the larger circumstance of a general decline in sport fishing and hunting related tourism, as well as the abolishment of the commercially caught salmon, I argue that the value of the fisher's enjoyment should be placed behind the value of the salmon's will. The salmon that are caught and immediately killed is being shown good care – at least as far as the salmon's will is concerned. In this particular instance, the good for the Atlantic salmon, and by extension, the river, is the respect of this will.

Chapter 5 Conclusion

This research has set out to answer the following questions: first, in what ways do various policies, management and development practices affect the ability of the communities on the Gander River to govern resources in the watershed? Second, what are the "river-based" identities and practices revealed by Mi'kmaw and non-Aboriginal residents and others using the Gander River watershed? And third, what are the implications of the various identities and practices for resource politics on the Gander River? The context for these questions is a particular situation of "landless" and "off-reserve" Mi'kmaw groups on the river, as well as non-Aboriginal peoples. Thus, these three questions have specific meaning in the Gander River as a *contact zone*, wherein these landless Aboriginal peoples live alongside their non-Aboriginal neighbours. Finally, as this research unfolded, a seemingly straightforward question emerged from the different identities and practices performed throughout my fieldwork: what is the Gander River? Exploring this question has dramatic implications for resource politics on the river and how good care is expressed therein.

There have been many policies, and subsequent management and development practices, which have influenced how the Gander River has been governed by the residents of Appleton, Glenwood and Gander Bay. The river's salmon population has been a key site for policies, management and development practices. The commercial salmon fishery had a dramatic impact on the Gander River, and it has been cited as one of the main reasons people (of European origin) settled in Gander Bay. As such, the commercial salmon had a huge impact on community identity in Gander Bay and elsewhere on the coast near major salmon rivers. After the 1992 moratorium on commercial Atlantic salmon in Canada, the Cooperative Agreement on Salmonid Enhancement and Conservation (CASEC) initiative was developed as a joint agreement between

the provincial and federal government and provided both political and financial support to Community Watershed Management (CWM) groups in the province. Through the CASEC initiative, Mi'kmaw and non-Aboriginal individuals and groups in the region came together to provide input and make decisions about the future of the Gander River watershed, and emerging from this effort GRMA was formed. The Aboriginal Fishery Strategy (AFS) was also launched in 1992, through DFO, from which the Aboriginal Fishery Guardian (AFG) program was developed. Aboriginal Fishery Guardians have been on the Gander River since that time. Over the years this program has provided Ktaqamkukewaq Mi'kmaq, both Qalipu and Miawpukek individuals, living in the area with employment on the river in fisheries enforcement and ecological monitoring activities such as conducting habitat assessments along the river, including in salmon spawning areas. The AFG program also provides Mi'kmaw guardians with an opportunity to spend time watching over the Gander River.

While the CASEC initiative and the AFG program offered local residents an opportunity for greater participation in local resource governance, and in the case of CASEC a critical opportunity for Mi'kmaw – non-Aboriginal collaboration in governance, the degree of local control was and is still very limited. The AFG program is thoroughly regulated through DFO, and there is little in the way of local autonomy of AFGs on the Gander River.[98] As discussed in Chapter 3, local multi-level and collaborative governance unraveled primarily because the provincial government withdrew support for community watershed management initiatives after the political fall-out from the attempt to produce Gander River specific salmon licenses.

[98] However, this need not be the case, as there are networks of Aboriginal Guardians in Canada that have leveraged AFS funding to further development and enhance their monitoring networks. In doing so, they have greater autonomy in river and coastal monitoring, for example, First Nation ownership of any data collected by an Aboriginal Guardian in Coastal First Nation Great Bear Initiative "Guardian Watchman" program in British Columbia (Coastal First Nations, 2012)

Another policy trajectory that has greatly impacted the Gander River, with wide reaching implications on local resource politics, is related to the recreational salmon fishery and tourism. From the time of Lee Wulff's involvement in the Newfoundland Tourist Board in the late 1930s, Atlantic salmon angling in Newfoundland rivers became increasingly branded as the apex of wildlife and outdoor sporting experiences by the colonial government and later by the provincial government. Additionally, through the practices of catch and release, recreational salmon fishing became associated with salmon conservation, an idea that was taken up by lobbying groups such as the ASF and further upheld by DFO through the current angling guide and regulations such as 'catch and release only' fishing seasons on the scheduled rivers. As discussed in Chapter four of this thesis, one implication of insisting that catch and release is the best policy for protecting and conserving the Atlantic salmon – and by extension the *only* way to care for the salmon – is the effective marginalization of the willful salmon.[99]

The second research question that guided this thesis was related to the identities associated with the river and river-based practices expressed by residents, and other river users, on the Gander River. In discussing this question, I will draw attention to the terms 'landless' and 'off-reserve' as they relate to the Ktaqamkukewaq Mi'kmaq. In spite of the dire impacts of the *Indian Act* (1985), the reserve system and other mechanisms restricting access to their traditional lands, these policies have provided Aboriginal peoples in Canada with a land base, however limited, and therefore at least some form of political and cultural cohesion. As a landless band, Qalipu, and similarly Miawpukek living 'off reserve',[100] in the Gander River watershed are without a tract of land, or, in the case of Miawpukek, are not entitled to the land outside of the reserve, as

[99] And salmon as food, which in turn impacts identities that include salmon as part of livelihoods and ways of life.
[100] In this case, outside of Conne River area in Bay d'Espoir.

defined by the *Indian Act.* In other words, according to the legal definition, those Ktaqamkukewaq Mi'kmaq living in the Gander River area, which applies to members of the Glenwood Mi'kmaq First Nation (GMFM) and the Gander Bay Indian Band Council (GBIBC), are landless. This is in spite of living there for multiple generations and identifying this area as home.

The lack of recognition and cultural acceptance by the Canadian state has severely affected the Ktaqamkukewaq Mi'kmaq experience on the land. Inland settlement and subsequent development, in tandem with informal policies of "Micmac" integration within the predominant (European) Newfoundland society over the 19th and 20th century, has caused indeterminate damage to cultural and spiritual ties to the land. However, in this research, I argue that the term 'landless' does not accurately reflect those identities and relationships with the river as practiced and performed by Mi'kmaw people, or for that matter non-Aboriginal individuals either. The designation 'landless' in many ways obscures the actual relationships that Mi'kmaq have with the Gander River, the role the river plays in shaping their identities as well as the different river-based practices that enact salmon. These identities include those emerging from: the legacy that the commercial salmon fishery had in the region, the thrill of getting a chance to catch the "king of the rivers" *and* having the opportunity after each catch to conserve this fish through its release. Others more closely identify with subsistence practices along the river and surrounding countryside. In short, the river, as a place, plays no small part in many peoples' identities and the types of activities they do—both Mi'kmaw and non-Aboriginal people – and for many of the Mi'kmaq people living on the Gander River this is the case regardless of any perceived legal landlessness, or even legal recognition of 'being Aboriginal'.

To reiterate from Chapter four, "identities are a temporary upshot of practices, interactions and interventions" (Woolgar & Lezaun 2013 p.334). Identity is far from fixed, or in Stengers' (2011) words, the identity of all entities is 'up for grabs'. Moreover, through practices, it is clear that identities cannot be externally defined- and in an effort to avoid some of the pitfalls associated with cultural essentialism- this analysis has focused on documenting the practices taking place as a means of exploring both Mi'kmaw and non-Aboriginal identities. Given that identity can be understood as the result of practices, among other things, even if only for a fleeting period, then identity too is multiple. In this sense, identity politics are akin to resource politics in that what constitutes the thing itself, in this case the identity of entities, is not given ahead time, rather the ontological status emerges through embodied practices.

The third question I have sought to answer is what are the implications of the various identities and practices for resource politics on the Gander River? In adhering to the river-practices, and subsequent identities, through this investigation, the question that immediately follows the last is: what is the Gander River?, which hits precisely the point I would like emphasize in discussing resource politics. "What is the Gander River?" is a remarkably disarming question. Initially the answer would seem profoundly obvious, particularly to someone with any familiarity with the river. But if the question is not immediately dismissed, it causes one to pause for reflection. It is disarming because it is a question largely absent from typical discussions of resource governance and place-based development. It is also a difficult question because the answer is not a matter of fact. It does not require a range of policy and scientific experts alongside holders of local knowledge and experience to weigh in on what is closest to truth about what is really happening on the Gander River. Rather, as demonstrated in chapter 4, there are multiple rivers insofar that there are multiple salmon enactments. As such, the *resource* I refer to in 'resource politics' is

multiple; to assume otherwise means that the term itself is an equivocal and homonymic one that allows "two [or more] partially connected worlds to fight jointly for the same territory" (De La Cadena , 2010 p. 355). Further, this implies that resource politics on the Gander River cannot be arbitrated through any means that would assume the river, or identities and entities therein, are just one thing. Working through these politics is akin to living together with a relational other—human or non-human – requiring a kind of cosmo-political approach in dealing with differences over what constitutes a thing. Ultimately, one of the primary goals of this analysis is to convince the reader that we should not lose sight of the ontological differences present when referring to the salmon, and by extension resource politics on the Gander River.

Attending to ontological difference has important implications for policies that might be used to develop the Gander River. In chapter three of the thesis I provided a review and sympathetic critique of place-based development on the Gander River. The argument in this chapter was that shortcomings of place-based development – though its promotion of local assets – may not be able to provide a true alternative to traditional, needs-based development models. This is partly because of good-quality assets present on the Gander River, such as GRMA, which fell apart for reasons largely outside of the control of local participants. More significantly, perhaps, place-based development models will struggle to respond to the multiple reals if the predominant approach by practitioners is to bring groups together to discuss the Gander River, in this case, without taking the first step of asking what the river *is*. Failing to open up the possibility of other reals, is to effectively deny the existence of the other. However, as discussed in chapter 4, demonstrating good care is a very specific and embodied process, which Barad (2007) refers to as "being of the world in its dynamic specificity" (p. 377). The focus on place, in particular identities, practices and relationships between and among humans and non-humans that are of a

world of 'dynamic specificity,' is a critical starting point in the work that has to be done in determining good care. *Place* is important here, particularly understandings of places as historically constituted and relational entities. Given place-based development's commitment to diverse and dynamic places, and increasing recognition of different conceptualizations of place (Daniels *et al*. forthcoming), this framework should not be discounted from conversations of how to care well on the Gander River.

Through critically engaging with the ontological question of what is *it* that exists, focus has been directed towards the different ways in which the salmon, a cornerstone of peoples' experiences on the Gander River, is *enacted* through practices. These enactments reveal the particular and dynamic identities and interactions amongst not only the humans on the river, but also non-humans entities. In exploring the various salmon reals, I have shifted the discussion about what constitutes good care on the Gander River from a model that insists the issue is a matter of reconciling multiple perspectives on a single thing to more humble – albeit difficult – proposition of 'staying with trouble' and living together in the knowledge that what is at stake is not any given perspective of what is right and good for the river, but rather the *things* in itself. What is at stake is the existence of a very real Gander Rivers, including the networks of identities, people, and non-humans that constitute it. Thus, good care, in terms of taking care of the Gander River, is not about which perspective is correct, far from in fact. This analysis has revealed that good care is two-fold: acknowledging the river in its multiplicity, while simultaneously making a deliberate choice of which river one would rather live in – and bringing that river into being. That is what I have attempted to offer here, and as stated, such a task is a messy undertaking that at times is unattractive and without clear resolution, but it is our responsibility in navigating between and among relational worlds.

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Appendix A Interview guide

Exploring connections between Mi'kmaq territory, identity and place-based resource governance in Newfoundland

Interview Guide

Name: _____

Organization (if applicable): _____

Where do you live, and please describe this area? Community vs. home vs. region

What makes you identify with this region?

What communities, municipalities, and/or regions are included Gander River watershed?

Have the boundaries changed over time?

If so, what was the reason for boundary revisions?

Describe your work business, role in (name organization). What other organizations/groups are you involved with? (volunteer, committee member etc.)

Please describe your role on the Gander River/watershed.

How often do you spend time on the river?

Describe the various activities that take place on, and most common uses of, the watershed?

What is your (personal and/or family) history with the river?

What is your favourite place in the watershed? Why?

How has the river system changed since you have known it?

Describe the physical/ecological changes to the river? How have certain activities changed overtime?

Who is predominantly using the river currently? In the past?

What do you consider to be the top 3 to 5 strengths or unique aspects of your region?

(social, environmental, economic assets of the region)

In what ways has this environment affected your personal identity? Your livelihood? Your sense of wellbeing?

Why is the river important to you? What does it mean to you?

Different *formal* and *informal groups to manage/steward river?*

What organization(s) are you affiliated with and how is this group involved in watershed and natural resource management or guardianship/stewardship?

What is this organization's mandate, goals on the watershed, vision for the future of the river?

What is the structure of this organization: membership determinates, size, committees' structure, mode of decision making?

How often do you meet?

How long has organization been in operation?

How have its mandates, goals, vision changed over time?

Who authorizes organization's mandate and activities?

a) What level of authority does your organization have in making decisions related to watershed management?

b) Describe the guidelines in place that govern management decisions? Who administers these?

In what ways does your org. collaborate in decision making around the Gander River (e.g. work with others to plan and make decisions and implement these decisions)

What other organizations are involved: Government (specific agencies and individuals), NGOs, Aboriginal Groups?

How are decisions collectively made regarding river management?

In what ways have the involvement of these various groups in management decisions changed? Describe any new groups involved? Groups that have folded?

What are the avenues for you to have input into the management of the Gander River watershed and its resources? If so, please describe these.

What role, if any, did the general public (private citizens, not formally organized interest groups) play in development/management strategies?

Please describe the level and method of public engagement.

Personally, do you feel any particular connection/responsibility related to the Gander River? How is this expressed?

If Aboriginal: What does it mean to you to be Aboriginal?

As an Aboriginal person, do you feel any particular connection/responsibility related to the Gander River? How is this expressed?

Has your organization identified the region's top problems and/or opportunities? I f yes, what are these problems and/or opportunities (top 5-10)?

Relationship provincial and federal government departments/agencies or NGOs

Has the relationship changed over time?

What leads to trust or mistrust in this relationship?

Is this relationship considered important in achieving your organization's goals/vision?

How open is your organization (and the people in your organization) to change and new ideas? Please explain and provide examples.

How has your organization made any attempts to search out lessons/ideas from outside the region or do they come from within?

Opportunities to reflect on lessons learned from development practices? Share lessons from these reflective exercises with others- i.e. other organizations, whether within or outside the region?

What are the future opportunities for or you/your organization in the Gander River Watershed?

What role do you envision or hope that you or your organization will have with the river in the future?

What challenges do you think you may encounter in pursuing these opportunities or this vision for the future?/ or challenges in general

How are you optimistic about the future?

How are do anticipate dealing with future challenges?

What are your hopes for the river/river management?

What challenges do you think you may encounter in pursuing these opportunities or this vision for the future?/ or challenges in general

What information related to the topics we have been discussing can I provide back to you that would be useful to you?

Is there anyone else who may be interested in participating in this research?

Appendix B Participant interview codes

Interview(s)	Codes [dates]
Aboriginal Fishery Guardians [3]	AFG 1 [15 June 2011]; AFG 2 [16 June 2011]; AFG 3 [20 June 2011]
Atlantic Canada Opportunities Agency [1]	ACOA [4 April 2013]
Contract guardian [1]	CG [20 July 2011]
Fisheries and Oceans Canada [2]	DFO 1 (regional representative) [27 September 2011]; DFO 2 (province-wide representative) [4 February 2013]
NL Department of Natural Resources [1]	DNR [3 October 2011]
NL Innovation Business and Rural Development [1]	IBRD [14 June 2011]
Gander Bay and Glenwood Band chiefs [2]	GBIBC (Gander Bay Indian Band Council chief) [7 July 2011 & 18 July 2011]; GMFN (Glenwood Mi'kmaq First Nation chief) [17 June 2011 & 21 June 2011]
Gander Chamber of Commerce [1]	GCoC [6 July 2011]
Gander River Management Association [3]	GRMA 1 [21 June 2011]; GRMA 2 [6 July 2011]; GRMA 3 [26 September 2011]
Mi'kmaq Band member [3]	MBM 1 [16 June 2011]; MBM 2 [15 July 2011]; MBM 3 [3 October 2011]
Municipal/local service district representatives [2]	MPL (municipal representative) [20 June 2011]; LSD (local service distinct representative) [29 September 2011]
Local residents [3]	RES 1 [15 July 2011]; RES 2 [19 July 2011]; RES 3 [2 October 2011]

Private business representatives [3]	BUS 1 [17 June 2011]; BUS 2 [20 July 2011]; BUS 3 [1 October 2011]
Salmonid Council of NL [1]	SCNL [25 June 2012]