Newcomer Self-Provisioning on the North Coast of British Columbia

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Introduction

Anadian resource management regulations and urban imaginations continue \checkmark to implicitly categorize the harvesting of food species in racialized economic terms. Commercial fishing in British Columbia was structured legally as a non-Indian activity (Harris 2008; Newell 1993) through the regulatory distinction between commercial and 'food fishing.' 'Subsistence' and harvesting for food is understood as an Indigenous activity. Hunting and fishing by non-Aboriginals are thus conceived of as recreational pursuits. In rural resource economies, such as Gitxaała territory on the North Coast of British Columbia, these social and regulatory categories constrain both the understanding of land-based activities and their practice by community members. To the north, the state of Alaska has recognized the cultural and economic importance of food harvesting to all its citizens and protects the subsistence rights of non-Indigenous state residents. In British Columbia, rural residents who strive to enhance their economic and social wellbeing through self-provisioning, find themselves caught between legal and social categories, and relatively invisible in resource management structures and land use planning processes. Their activities are non-commercial but economic, and social but not really recreational and intricately connected to their identities as members of northern coastal communities.

This chapter focuses on the self-provisioning pursuits of the Gitxaała Nation's non-Indigenous North Coast neighbours. Drawing upon interviews with the non-Indigenous residents of the North Coast, this chapter explores the value of the region's land and resources to them and extent to which the lands and resources affect their livelihoods and lifestyles. Their responses reveal that economic considerations do motivate residents to participate in wild food harvesting. However, equally important motivators are self-reliance, strengthening of social networks, reinforcing regional identity, and transference of knowledge and skills. To understand how participation in wild food harvesting has affected cultural, economic, and social aspects of the experiences of non-Indigenous residents of the North Coast, conceptual frameworks related to informal economy are applied in both the research and analysis. This combined with ethnographic methods enabled a more inclusive analysis, facilitating the identification and discussion of the diversity of factors motivating North Coast non-Indigenous residents in their use of the region's land and resources.

Self-provisioning on the North Coast provides the settler residents with an alternative source of goods (i.e., primarily food), expands the capacity of individuals and the community they form, and serves to promote social and cultural well-being. Focussing on the self-provisioning pursuits of the non-Indigenous residents reveals the diversity of factors that motivate them to hunt, fish, and gather, as well as the conditions on the North Coast that facilitate these activities that are very much shaped by the geography of the region. In the process goals, values, and aspirations of the residents are brought to light, those of: respect for the land and nature; sharing as a strategy for families and the community; reciprocity; retaining and passing on knowledge and skills.

Geographical Setting

The North Coast area, as defined here, encompasses northern British Columbia at the southern end of the Alaska Panhandle, bounded by the Pacific Ocean to the west and the Coast Mountains to the east. The Skeena River bisects the mainland and ocean straits, channels and inlets slice through the rocky landscape and separate the mainland from the many islands. Within the area are also small to mid-sized lakes and many streams and small rivers originating in the mountains to the east.

Prince Rupert, located on the coast with a natural deep-sea port, is the largest town in the region, with a current population of about 12,000. The region has a large rural population, with about 43% of the region's residents living outside municipal boundaries. This is proportionately higher than in any other region of British Columbia (British Columbia Ministry of Sustainable Resource Management 2005:15). These smaller settlements are diverse with particular histories and contemporary experiences. The largest outlying communities are the First Nations reserve villages of the region – some on the sites of ancient villages, others located according to colonial priorities and forces. At the other end of the scale are the single cabin sites where independent and sometimes reclusive individuals have sought alternate offthe-grid lifestyles. These peaked in number during the 1970s but some still remain. There are also a number of outlying settler communities that were established during the early 1900s. Icelandic and Japanese fishers settled Osland, on Smith Island. Hunt's Inlet on Porcher Island dates back to the late 1800s. Neither of these communities has retained any permanent residents since the 1970s, and the cabins are now weekend or summer homes for people in Prince Rupert, and increasingly, Alberta. Scandinavian boatbuilders, fishermen and loggers settled Oona River in 1909. While a growing proportion of residents are retirees, there remains a permanent population of fishers and loggers who engage in the formal local resource economy. Dodge Cove and Crippen Cove are located across from Prince Rupert on Digby Island and are home to a colourful mix of resource workers, artists, and professionals such as nurses and teachers who commute to Prince Rupert daily.

Not surprisingly, the outlying settler communities have a particularly strong tradition of self-provisioning and extensive resource use that complemented their natural resource work in the formal economy. Individuals who live in those places, those who grew up there, and those who retain cabins on the islands, numbered highly in the research sample. However, it is not just the 'pioneer' families with a multigenerational history of natural resource extraction that have meaningful engagements with the land and resources of the north coast. Harvesting and preserving local food is a common activity for many North Coast households, imbued with significant economic and social value. The research for this chapter sought to make visible those values and relationships in the context of land use planning.

Methods and Approach

Data for this chapter was initially gathered as part of the North Coast Land and Resource Management Plan (LRMP) planning process. Overall the purpose North Coast LRMP plan was to:

Foster economic and environmental sustainability through an ecosystem-based management (EBM approach which relies on traditional, local and scientific knowledge.

Deliver a comprehensive system of area specific management direction

Identify economic, environmental, social and community transition requirements and strategies. [BC BC Ministry of Sustainable Resource Management 2005:17]

The North Coast planning area is bounded by the Pacific Ocean to the west and the Coast Mountains to the east. It covers a diverse area between Princess Royal Island to the southwest and north to within five kilometres of the town of Stewart (ILMB 2001: NCLRMP BACKGROUNDER). The stakeholder groups at the North Coast planning table included:

- Community Economic Development
- Major Forest Companies
- Small Business Forestry

- Labour
- Mining and Exploration
- Local Government
- Provincial Government
- Federal Agencies
- Nisga'a, Haisla, Gitxaała, Tsimshian First Nations
- Conservation and Environment
- Fish and Wildlife Habitat
- Tourism¹
- Recreation

This was a body of stakeholders designed to represent the variety of interests and rights that intersect in the region. While originally envisioned as an 18 month process, the NCLRMP table was convened in January 2002 and final recommendations were released in February 2005.

As part of the LRMP planning process the British Columbia government commissioned studies which considered all potential uses and functions of land and resources in the various regions of the Province and invited stakeholders in these regions to participate in the decision-making process.

As indicated earlier an ethnographic research approach was used in the collection of data. The researchers applied qualitative methods to gather their data. As part of the process, a common sampling method known as snowball sampling or chain referral sampling was used. In this method, participants with whom contact has already been made by the researchers, use their social networks to refer the researchers to other individuals who could potentially participate in or contribute to the study (Bryman and Bell 2007; O'Reilly 2005).

As an exploratory study, the ethnographic nature of the research was critical. Non-Indigenous hunting in BC particular is understudied and poorly understood by academics and policy makers. The project required a methodological approach that allowed for the narrative self-positioning of resource users to be analyzed.

The goal of the research was not to quantitatively assess the role of self-provisioning in the North Coast – project resources and timelines did not allow for this. Rather, a preliminary investigation of the scope of activities and how they were understood and valued by participants was designed to inform the land use planning. Essentially, the research aimed to prove the existence of these activities and social relations and to highlight their economic, cultural and social importance in the region. Land use designations that attend to uses and values in addition to Aboriginal rights and title, commercial value, and recreational interests were needed.

Interviews with non-Indigenous residents were conducted in Prince Rupert, Port Edward, Oona River, and Dodge Cove between August 2002 and January 2003. The

¹ Due to conflicts, this seat was eventually split into two, representing large-scale commercial and smallscale local tourism operations separately.

primary field researcher was Caroline Butler. Her work was supplemented by research conducted by Daniel Dawson, Rebekah Leakey, and Charles Menzies. The researchers started with names provided by NCLRMP Planning Table Representatives. Specifically, support for the research and identification of key participants came from the Fish and Wildlife Habitat sector. The researchers also drew upon personal contacts in the community.

Twenty-five primary interviews were conducted, supplemented by participant observation in Prince Rupert. Interviews were conducted at the research participant's home or, in the case of self-employed, at their place of work. Several of the interviews were group interviews, with the largest being a gathering of five recreational hunters in the 30 to 45-age range. The majority of research participants were men, ages 33 to 73. Most of the interviews were structured around the seasonal round, beginning in November or January, and following the harvest activities throughout the twelve months of the year.

Data was gathered through semi-structured interviews, which provided a basic framework for conversation through a list of prepared questions, while still allowing for the natural flow of conversation that can offer unexpected information. Interview questions sought to establish each participant's background information, including age, occupation, and length of residence and use of the North Coast. Maps were used as a resource, but spatial data was not the focus of the interviews. The maps provided an opportunity for participants to demonstrate their knowledge of and relationship with various locations within the region, discuss resource use within specific areas (e.g., Anger Island, Gil Island area, Hecate Strait, Kennedy Island, Otter Pass, Smith Island), and identify specific threats to access.

With an emphasis on narrative inquiry as a primary analysis tool, interviews strove to not only identify the degree to which fishing, gathering, and hunting makes material contributions to households (i.e., catching your own fish and hunting for your own meat reducing food costs). Interviews also sought to determine additional motivations and benefits of land and resource use (e.g., strengthening connections to the land; contributing to social capital and social networks through networks of exchange and reciprocity)

Two strong currents inform the analysis. As suggested earlier in the document, the literature on informal economy in North America, in particular that of self-provisioning, informed the analysis (e.g., Ellison et al. 1997:259; Gerxhani 2004; McLain et al. 2008; Reimer 2006; Teitelbaum and Beckley 2006). Equally important was drawing upon analytical tools of social scientist and use ethnographic analytical methods.

The chosen analytical framework reflects the applied context of the research. As the land use planning process was being launched in the North Coast region, research priorities were identified to supplement the "Current Conditions" and background reporting that had been done prior to stakeholder engagement. Dr. Charles Menzies of UBC identified the lack of information about non-Indigenous, non-commercial resource use as a particular area of concern. The research project was contracted to provide a profile of such practices and land use values. Informal economy was chosen as the label for these activities, rather than subsistence, to emphasize the economic value and to differentiate the activities from Aboriginal and recreational practices.

These activities and their limited integration into Provincial policy and spatial planning need to be understood against the backdrop of Aboriginal claims and resource competition. Land use planning in a pre-treaty context such as that of the North Coast of British Columbia hoped to respect Aboriginal rights and traditional uses, designate particular areas for conservation, open others for development such as forestry, while preserving visual quality and access for tourism and recreation. Local knowledge was identified as a key information source but was expected to be primarily integrated into the planning through the representative stakeholders who sat at the planning table. The non-Aboriginal community-based research opportunities were limited.

Historically, self-provisioning activities, which "form a subset of behaviors broadly subsumed under the heading 'informal economy'" have played an important role in rural life (Teitelbaum and Beckley 2006:114). Informal economy is defined in various ways in non-academic and academic literature, with researchers differing in their views about what types of activities are informal economic activities and therefore what to measure and/or observe when studying informal economic activities (McLain et al. 2008:4). While the formal economy encompasses activities and transactions that are systematically recorded or regulated by the government, the informal economy generally refers to the "production, distribution and consumption of goods and services that have economic value, but are neither protected by a formal code of law nor recorded for use by government-backed regulatory agencies" (Reimer 2006:23).

In this chapter we use Reimer's definition of informal economic activities that in the "most general terms refers to the production, distribution and consumption of goods and services that 'we do not count.'" Given that informal economic activities are not counted "participation in the informal economy must be inferred from information regarding the activities of the respondents" (Reimer 2006:29).

Informal economic activities are generally performed for self-consumption or for relatives, friends, and/or acquaintances (Ellison 1997:257). Furthermore, and of relevance to this study, because informal economic activities are not recorded and therefore undetectable to conventional economic analysis, their value is also invisible (Berkes 1994:357). For the purposes of this chapter, analysis will focus on the subset of activities that fall under the heading of "informal economy," that of self-provisioning (Teitelbaum and Beckley 2006). Further, an examination of the informal economy (i.e., wild food harvesting) is undertaken from the point of view of activities rather than currency. However, currency as it relates to the various harvesting activities will be identified.

A number of specific conditions are required to advance the operation of informal economies (see Ellison et al. 1997 and Reimer 2006). These conditions are analogous to those required for operation of formal economies, "but they have some special aspects that favour the more informal approach to economic behavior" (Ellison et al. 1997:258). The conditions that augment informal economies are (Ellison et al. 1997:258-259; Reimer 2006):

- Access to tradable resources (availability of wildlife, fish and edible fruits; equipment; cash; time);
- A wide range of knowledge and skills;
- Social networks;
- Social norms that support informal exchange; and,
- Levels of exclusion from participation in the formal economy.

Drawing upon interviews with wildlife harvesters on the North Coast and informed by the literature on informal economies, this section discusses the conditions (i.e., resources, knowledge and skills, social network, social norms, and economic need) that support informal economic activities in the North Coast region.

It should be noted that many of the research participants also cultivated significant harvests of vegetables on their properties in Prince Rupert or other communities. Gardening activities were not included as foci of the project because they were not directly relevant to the land use planning process. However, it should be noted that small-scale cultivation has a long history in the region and contributes significantly to the informal economy. While the range of vegetables that can be grown in the North Coast climate is small, residents have seen a great deal of success with raised beds and using local resources (fish carcasses, seaweed, and starfish) as fertilizer, and greenhouses are not uncommon.

Provisioning Needs: Components of the Informal Economy

In the following section, we explore the requirements of participation in the informal economy of the North Coast: access to natural resources, access to material resources, time and flexibility, skills and knowledge, and social networks.

Access to Natural Resources

Participation in the informal economy requires access to resources – natural resources as well as the means of production, and time to engage in self-provisioning activities (Ellison et al. 1997:257-259; Reimer 2006). Land provides the opportunity to produce or procure food for consumption or exchange. Equipment is required and may be either simple or complex. Modes of transportation (e.g. boats, trucks)

are required for access to harvesting sites or for distributing a product. Although, informal economies appear to function outside of regular economies, the availability of some cash is required for them to operate. Finally, time is an important resource for the process (Ellison et al. 1997:258-259; Reimer 2006:27), which requires a particular relationship with the formal economy, with participants being neither too 'under' nor 'over'-employed.

The North Coast of British Columbia has historically provided all of the resources required for successful self-provisioning to a sizable portion of the local population. A large public land base and marine area, with both marine and road access hosts a diverse array of abundant food species. Industrial development has not significantly inhibited harvesting activities; in fact, the construction of logging roads has been identified as a benefit to terrestrial hunters, improving access and encouraging wildlife movement. Commercial fishing participation provides a portion of the settler community with the means of production for household provisioning through the use of boats and nets, and commercially-caught fish enter the informal economy through gifts, trade, barter and informal sales. The industrial wage economy has provided high-paying seasonal jobs that can fund the purchase of harvesting equipment and fuel, and that provide the flexibility necessary to engage in multi-day harvesting activities at various times throughout the year.

The North Coast region also supports the social resources and relations that underpin an informal economy. Despite experiencing some youth outmigration and transient worker populations, multigenerational kinship networks are strong and common, promoting resource sharing, food distribution and knowledge transfer. For those residents who do not have longterm ties to the area, tightly knit labour communities often provide similar social networks – millworkers or fishermen create hunting parties. And the history of boom and bust economies and the unpredictability of key commercial fisheries have encouraged self-provisioning and the supplementing of cash income through resource harvesting. Finally, the intersections between First Nations and settler families and communities result in the integration of First Nations traditional knowledge of local resources into the non-Aboriginal informal economy.

First and foremost, wild food harvesters require access to a land base that holds products they seek. During the interview process, residents described the various locations on the North Coast that support their self-provisioning activities. North Coast settler harvesters use a vast area to provision their households and communities. Interview participants living in the region described a harvesting range that stretched from Camaano Sound in the south, Dease Lake in the north, and Houston to the east, and west to Haida Gwaii, and including marine, riverine and freshwater areas. Harvesting areas were accessed by boat, truck, all-terrain vehicle, and airplane.

North Coast settler harvesters identified a wide variety of resources that they

consume. (See figure 1.) This list is somewhat shorter than that generated by their First Nations neighbours, and involves a smaller range of processing and preparation methods. However, the number and diversity of types of species accessed by settlers in the region indicates the breadth and flexibility of the informal economy.

Terrestrial	Birds	Marine	Plants
Deer	Ducks	Salmon	Mushrooms
Moose	Geese	Steelhead	Huckleberries
Caribou	Grouse	Trout	Salmonberries
Elk		Halibut	Blueberries
Mountain Goat		Rockfish	Soapberries
Bear		Crab	
		Prawn	
		Shrimp	
		Seaweed	
		Starfish	
		Clams	
		Cockles	

Figure 1. Resources consumed by North Coast Settler Harvesters.

While every research participant did not use all of these resources, each did access more than one species. Some of the fishermen did not participate in terrestrial hunting but almost every hunter also fished. Ducks and geese are harvested primarily in marine areas, from boats. Of the larger land-based species harvested, interviews reveal that the area's residents most frequently harvest deer, closely followed by moose. However, a moose yields more meat than the deer; 450 lbs vs 45 lbs of edible meat per animal.

Access to ungulates is achieved through hunting permits issued by the Provincial Wildlife Conservation. Some of the species listed above are limited entry. Hunting trips to Haida Gwaii were often motivated by the higher bag limit for deer on the islands. The Department of Fisheries and Oceans permit recreational fishing federally.

During the interviews, North Coast residents identified what they perceive as threats to the resources and areas upon which they have come to depend. Threats included resource competition, spatial restrictions, and resource or habitat depletion.

Fishing is very different from when I first started out, there was so much more opportunity. Resource space was very much more open then, as compared to now.

Part of the problem in fighting for this kind of stuff is that kids growing up now won't have lived it, so they think that the way things are now is as good as it gets. The resource base has shifted away from local use to southern or international, not that the resource has diminished much.

Provincial proposed coastal zoning plan - a number of areas I once frequented may become limited or be removed from my access due to sport fishing/fish lodges or salmon aquaculture.

Khtada Lake - sportsfishing. Logging is a concern. Selective logging would be okay. You can catch 10 rainbow trout in there. We use airplanes. A few people hike in there. There are goats and bears too.

There are 10-12 cabins between Kwinitsa and Exchamsiks. The biggest threat to the area is increased access. The animal population would decrease. Logging couldn't impact it.

Access is a concern for the future. There was an article in the Daily News that said that people were willing to pay more to use resources. Not everyone is.

The Gitnadoix River is classified water – you need a separate license to access that area. The guides wanted that to happen. They got so many hours on a license to take people there to fish. The areas are reserved for guides. I am worried that will happen with hunting and only the wealthy will be able to afford to do it. Any kid making \$2.50/hour should be able to do this. I have no problem with the guides but I wouldn't want to see us kicked out of areas.

Preservation of extensive habitat for key species was a primary concern for research participants. Limits on the type and extent of development in the region were identified as necessary.²

Access to harvest areas appeared to be an increasing concern for research participants. This reflected, to some degree, the land use planning context of the project. The North Coast LRMP's objectives of categorization and zoning of land for particular activities and to manage for competing uses was understood by residents as having the potential to both protect their harvesting activities, and to inhibit them. While some participants were hopeful about the protection of important habitat from logging and mining or other development impacts, the creation of parks and conservation areas were seen as a threat to their economic activities. The designation of areas

² At the time of the interviews, development in the region was at a low; the forest and mining industries were in decline and few new forms of development were being proposed. Since that time, mining claims have increased, and various forms of energy development and transport have been proposed. Public expressions of concern and debates regarding terrestrial and marine impacts of development have increased.

for commercial guiding was also seen as a looming reduction to recreational areas. Provincial-level planning was thus described as something of a double-edged sword.

The ratification of the Nisga'a Final Agreement also contributed to some participants' concerns about access to both area and resources. Prince Rupert residents were concerned about the potential to lose hunting areas through the transfer of Crown land to First Nations' land claims. Some feared that further permitting and/ or fees would be required for hunting in First Nations treaty lands. Land claims and processes such as the LRMP produced the perception of a spatial squeeze on non-Aboriginal, non-commercial hunting and other provisioning pursuits.

Federal restrictions on sportsfishing in terms of gear, area, and catch limits had impacted fishing opportunities in both ocean and riverine areas since the late 1990s. Competition for catch share with commercial and Aboriginal fisheries, and the increased power and presence of commercial recreational operations were identified as threats to the ability of North Coast residents fishing for food catches. The ongoing debate regarding salmon aquaculture in northern waters was considered both another potential spatial loss and a more general threat to the viability of salmon populations.

Several hunters described a complicated relationship between hunting and logging in the region. Logging reduced habitat for large ungulates, and had also, historically, impacted salmon-producing watersheds. However, hunters had benefited considerably from the improved access to backcountry areas provided by logging roads. Furthermore, Prince Rupert hunters were pleased with the increasing numbers of moose encountered in coastal areas, as interior logging pushed the population west. Interview participants did note, however, that increased road development eventually resulted in increased numbers of recreational users, leading to overcrowding, resource depletion, and area avoidance. Those with ATVs and jetboats, allowing them to access the more remote hunting areas, were reluctant to see some of these places opened up to a wider population through road development. Furthermore, the development of amenities at particular sites, such as washroom facilities or boat ramps, was identified as a trigger for increased usage, resulting in spatial and resource competition.

Resource harvesters who regularly and significantly participate in the informal economy differentiate themselves from recreational resource users. They consider themselves distinct from the more numerous, less frequent, less well-equipped hunters and fishers who use more accessible areas. The increased spatial incursion of this other category of users was perceived as a threat to their economic activity.

Access to Material Resources

The harvesting and related processing of wild foods require various forms of specialized equipment and transport. Data derived during interviews suggests that self-provisioning activities in the form of harvesting game and fish have the potential to be expensive undertakings. Marine fishing requires the largest capital expenditure in the form of a vessel, if one does not have access to a commercial fishing boat. Hunting can involve large expenditures for all-terrain vehicles or jet-boats to access remote locations. Other activities require a minimal investment. River or lake fishing can be done without a boat or with a smaller vessel. Harvesting berries, mushrooms and non-food resources such as wood, involves simpler and less expensive tools.

Hunting	Fishing	
ATV	Boat	
Jetboat	Trailer	
Rifles with scope	Rods	
Bow	Reels	
Decoys	Lure, jigs etc.	
Binoculars	Nets	
Tent/Trailer	Cooler	
Misc. camping equipment	Chestwaders/boots	
Chestwaders	Lifejackets	
Clothing		
Meat saw		
Meat grinder		
Compressor cooler		

Figure 2. Equipment and transportation investments

Those who travel to specific harvest sites to hunt and fish, often use the opportunity to pick berries and mushrooms and to beachcomb logs.

Vehicles such as pickup trucks were not identified by most participants as expenditures for harvesting activities, although some did indicate that they had purchased more powerful or larger vehicles to support/facilitate their resource use activities. The investment in hunting is considerable. You need a truck, so instead of a \$15,000 vehicle, you have a \$45,000 truck.

Quantitative data for activity and equipment costs were beyond the scope of the research, but participants quantified some aspects of their gear costs while contextualizes their provisioning activities. The initial capital outlay for equipment varies by activity, species of focus etc. but can be sizable. Participants indicated spending up to \$500 for high quality binoculars, or over \$50 000 for a fishing boat. Fisherman may have ten \$200 fishing rods, and hunters may have several rifles worth over \$1000 each. Clearly, high level participation in the informal economy requires participation in the formal economy. Wild food harvesting must be subsidized by a form of regular wage employment for most community members. However, these costs tend to be discounted over time, complicating the possibility for individuals to accurately identify the costs of wild foods.

Several participants commented that they expected that a precise calculation of their terrestrial hunting expenses would show that the meat was actually more expensive than a store-bought equivalent. However they cited both the superior quality of the meat and the enjoyment value of the activity as discounting the expenditure.

However, various individuals also pointed out that harvesting big game in particular was not necessarily cost-effective. As discussed earlier, the cost of big game hunting and fishing can be considerable. In regard to the procurement of game meat, hunters stated: "It's a heck of a lot cheaper to go and buy meat. I hunt for both meat and recreation." The investment in hunting is considerable.

Most participants confirm that big game hunting is an extremely expensive recreational activity – a luxury. Price per pound, game meat is usually more expensive than store-bought meat. Most participants suggested that their hunting activity decreases in times of economic hardship. Several noted that there are few people hunting this season because the pulp mill in Prince Rupert has been shut down and many people are out of work. Several suggested that this was quite noticeable in the fewer number of people traveling to Dease Lake for moose.

Harvesting of wild foods also includes gathering of mushrooms, berries and wood. Harvesting these wild foods tends to be more cost-effective because the process requires simpler tools. Furthermore, as stated previously, gathering berries and mushrooms is sometimes engaged in while hunting, thereby decreasing site access costs.

Time and Flexibility

The time and flexibility to participate in informal economic activities is an equally important requirement as the resources to fund them. Participating in the wild food harvesting requires that harvesters follow a schedule dictated by nature and/ or resource management regulations. Some animals can only be hunted at specific times, in specific areas. Marine species are subjected to both seasonal closures, and seasonal abundance. Berries and mushrooms can only be gathered during particular times of the year.

The individuals interviewed were generally long time residents of the region who often list more than one significant occupation. Furthermore, their occupations, current and former, allow a certain degree of flexibility. Seasonal workers such as commercial fishermen or cannery workers can have long periods of unemployment or underemployment, allowing for informal economic activities. Shift workers such as firemen, or those working at the pulp mill or coal or grain terminals can also schedule multi-day harvesting trips throughout the year. Independent tradesmen such as carpenters enjoy the ability to schedule their own work. A harvester's relationship with the formal economy and wage labour is a critical determinant of both the financial and time resources available to their land use activities.

The majority of wild food harvesting excursions are conducted as day trips, however the hunting of large ungulates, a key activity, is predominantly undertaken as a multi-day expeditions. This is primarily because the prime moose and deer hunting areas involve several hours of travel from Prince Rupert. Oona River residents were the only participants engaged regularly in short day trips of deer hunting. Mushroom picking, which occurs in the autumn, in mainland areas northeast of Prince Rupert, was also often a multi-day activity. Furthermore, this activity straddles formal and informal activities given the lucrative export market for pine mushrooms (Menzies 2006).

One particularly avid hunter provided a snapshot of part of his seasonal round:

"January [is the] end of the migratory bird season....

June, July and August are dead months for hunting. When I was younger I went goat hunting in August ...

September: Start hunting in a little more earnest. Duck hunting up the river. ...

November: I go to the Charlottes [Haida Gwaii] on November 11 for a 10-day trip, 3 of us."

The most active participants in the informal economy held flexibly scheduled or seasonal jobs which allowed for several multi-day excursions at various times of the year, and regular day trips. This factor of seasonality and scheduling dovetails with the class-based association with the informal economy. While annual sports fishing charter trips were associated with middle and upper middle class professionals, hunting and regular recreational fishing activities were clearly the domain of the working class in Prince Rupert. Few of the individuals recruited for the study held traditional white-collar or '9-5' jobs. The resource-based economy of the region and its work structure supports the ability of workers to combine formal and informal economic activities.

Skills and Knowledge

Participation in informal economic activities generally requires a wide range of knowledge and skills. The majority of research participants harvested a variety of resources throughout the year. Detailed knowledge of the land and animals is required: species identification and behaviour, habitat identification, migration patterns, and outdoor survival. Participants also require the skills to operate gear and equipment, and to process and preserve their harvests. They are also familiar with regulatory processes including permitting, size and harvest limits, gear restrictions etc.

Consider the following quote from an avid 31 year old hunter:

I usually take a spring bear – they are easiest to butcher. The fall bears are feeding on berries. They have a great flavour but the meat is marbled and the fat goes rancid quickly.

March/April: start gearing up for bear season, which starts mid-April. ... I am looking for a good hide. I like to use every thing I can, other than the stomach. We make sausage, roasts. I want to make bear hams – they are supposed to be very tasty. In a 250 lbs. bear, you lose 50 lbs. to skin and fur, 30 lbs. to head, 40 lbs. guts, and 40 lbs. bones, unusable. That's what, 90 lbs left over. That's generous in terms of edible meat. ...spring bears are good – they have good coats. 3-4 weeks into the season they lose patches of fur – to rubs. They are nice and lean at the beginning too. Bear fat ... if you render it down, it is great for waterproofing leather, and I'm told that the lard is fantastic for baking.

This passage points to the hunter's very detailed knowledge of a bear carcass and his ability to extract multiple food and non-food products from it. Furthermore, it indicates an extensive knowledge of other potential uses and products that have been shared with him by other hunters. North Coast harvesters' ecological knowledge shapes their harvesting efforts. They closely monitor health of resources and adjust their activities accordingly.

For the population dynamics, because of the wolf population, the bag limit is reasonable. The wolf population is getting bad. When we were hunting, we gave the stressed fawn call to lure a buck. Two wolves showed up. Now we find wolf tracks where there used to be only deer tracks.

Resource users are thus assessing populations, and managing for their abundance. Area avoidance, reduced harvest, and targeting harvesting are mechanisms for local resource management.

Knowledge and information are passed between hunters across and within generations, and across and within communities. While settler resource harvesting practices often differ from local First Nations hunting and fishing in terms of method, gear, and locations, there is also a considerable amount of knowledge transfer between these populations. The residents of outlying communities such as Oona River and Osland enjoy the benefits of almost a century of localized resource use by their families. Non-Aboriginal harvesters married into First Nations families and communities access millennia of ecological knowledge and skills.

The interviews undertaken with harvesters in the region reveal an intimate and developed knowledge of the region's land and resources. This knowledge is vital to effectively engage in self-provisioning activities on the North Coast.

Social Networks

A significant element in the operation of informal economies is the "availability of a social network" (Ellison et al. 1997:259). A social network creates "contacts for exchanges, access to resources, information, and skills, as well as the conditions for enforcing obligations" (Ellison et al. 1997:259). These social networks advance social norms that "support the value of generalized reciprocity and social obligation" (Reimer 2006:28). The informal exchanges that occur "rely on common values affirming the importance of honouring commitments, helping others, and local self-sufficiency" (Reimer 2006:28). Reimer adds that the low mobility and social homogeneity of smaller centres favours the emergence of norms such as social obligation. The thesis is that: "Since one cannot expect the immediate repayment of most exchanges or services, it is necessary to have the confidence that one will benefit over the long term. This can only be accomplished through informal norms and constraints that maintain the value of helping one another" (Ellison et al. 1997:259)

Interviews with wild food harvesters reveal a social system supporting informal exchanges in the North Coast region and which facilitates exchanges of goods and services related to wild food harvesting. The activities in the informal economy are both social and collaborative. Groups pool resources and labour to provision for their households, but also approach many of these activities as social and recreational.

The interviews reveal that harvesting tends to be an extremely social activity. Most fishing and hunting activities that interviewees spoke about happen in pairs or larger groups of family and/or friends. Many of the more distant hunting trips are organized well in advance and provide an opportunity for friends to spend time together, often friends who live in different communities. Some of these kinds of trips are repeated every year – there is an annual moose hunt in Dease Lake, or a mountain goat trip in the Kutzemateen.

The social groups that go hunting together are built in a variety of fashions. Some are based on kinship; brothers or brothers-in-law often hunt and fish together. Others are built around groups of people who work together in the formal economy, such as a number of mill workers. One deer hunting group consisted entirely of commercial fishermen who were finished fishing for the season. Some of these fishermen work collaboratively when fishing, other members of the group were family or simply acquaintances from the dock. Some participants suggested that they have sought out other retired individuals for hunting partners. Other groups reflect residency patterns, for example, a group of Hunts Inlet residents hunt together yearly on the mainland. Similarly, Oona River residents often hunt together close to the community. Harvesting activities thus reinforce ties of kinship, community, and work.

A key commercial species of the region – sockeye – is also a central resource in the informal economy. Many community members jar sockeye each year. This fish appears to move primarily through the informal economy – sockeye is bought directly from or traded for with a commercial gillnet fisherman. People buy fish from the same fishermen every year, an acquaintance or family member. The processing of fish is often collaborative; people who fish independently may work together to jar or smoke their salmon.

Based on the interviews it would appear that exchanges as they relate to game, fish, mushrooms, and berries take various forms. However, all of these exchanges appear to lack a formal accounting system, such as one would find operating in a formal economy. Data from interviews suggests that food is regularly shared without expectation of immediate repayment with friends, neighbours and extended family.

Crab - I give away 6-12 every time I go out.

Salmon and halibut- basically I take what I need. I eat it fresh, give it away, send it to my parents, and smoke it. I freeze it to send away or to smoke.

We can the sockeye. 16 cases, but we'll only eat one. My parents get 4.

I smoked 15-20 fish, most were given away.

I send 100s of crab to Prince George, live, on the bus, to my family.

Fishing: Now I do very little. My friends bring me fish. We eat it twice a week in the summer.

We do some berry picking. Soapberries- we give those away, blueberries, mushrooms for home use. Some years we jarred a few cases.

However, some participants did identify specific exchanges of tradeable goods. For example, one individual stated that his household provided fish to family members in exchange for assistance around his property. There are exchanges of materials (e.g., skins) derived from the harvest animals for a service to be determined. One gentleman explained that he had given the skin from a bear he had harvested to his friend to make a drum.

Given that hunting and fishing are expensive undertakings there also appears to be a sharing of resources such as vehicles, in the sense that two or more individuals may hunt or fish together. There are instances as well where individuals who do not own their own boats or all terrain vehicles go hunting and fishing with friends. Finally, in a group of people, sometimes only one will receive a moose tag in the license lottery. A group or pair will go out to hunt that one tag, thus pooling access to the resource.

Values of the Informal Economy: Motivations and Benefits

As stated earlier, informal economic activities are generally not recorded for use by

government-backed regulatory agencies and therefore undetectable to conventional economic analysis. As a result the motivations of those benefits of participating in an informal economy along with their motivations are also not recorded. This section strives to make visible the value of the informal economic activities that take place on the North Coast. It will be argued that: wild food harvesting provides an alternative source of goods and services; the process of wild food harvesting also expands the capacity of communities and individuals; wild food harvesting promotes social and cultural well being; and wild food harvesting contributes to the formal economy.

Wild food harvesting becomes a way to complement purchased goods, providing nutritional supplements to purchased foods, lowering food costs and/or supplementing income (Teitlebaum and Beckley 2006). One of the seniors interviewed, claimed that harvesting did supplement his income:

I like wild game. It has no additives, no hormones. I don't enjoy killing anything. Harvesting does supplement my income, which is meagre for senior citizens. My moose costs \$4.50/lb., not including the vehicle, the gun etc. We can berries, and mushrooms. We pick all kinds except pine mushrooms. We can them or dry them – a dozen cases. We pick black seaweed on some beaches and dry it. It is twice as good as that east coast dulse. ... We take all the seafood legal to us. Salmon, ground fish, sole, red snapper. If it is edible, we'll eat it.

For commercial fishermen particularly, using some of their catch as "food fish" is a key source of winter food. This would reflect both a preference for eating fish, and the benefits of 'free' protein. Although it was not possible to quantitatively analyze the changes over the last few years, there were indications that take-home sockeye has increased slightly due to the lower prices harvesters receive for their catch – the economic gap between selling a fish and taking it home as food has decreased.

However, the shift of some fisheries to a quota system has impacted fishermen's ability to take home fish for food. In the halibut fishery, all fish must be weighed and validated. Those fish that are not validated are illegal. Many fishermen lease a halibut quota at approximately 70 percent of the market value of the fish. If a take-home fish is validated, it effectively costs them up to \$2.50/lb – it is not free. The quota system has thus limited the ability of non-Aboriginal fishermen to secure a winter supply of fish. Participation in recreational fishing, therefore allows access to marine species for food with relatively little permitting cost.

Terrestrial hunters in particular, highlighted the value of alternative protein sources. Interview data indicates that hunting households generally consume game meat at least twice a week. Fish harvested in the region and store bought chicken and/or pork supplement this meat. However, there are households in the region that buy little or no commercial meat. Those that do harvest and consume game meat appear to use it as a replacement for beef and maintain that it is superior to store bought meat. This belief is articulated in various ways as is evident in the following excerpts:

The game meat is leaner and healthier than store bought beef for example. Everyone is pushing free-range animals, yet they are still against hunting.

I believe game meat is better for you - less additives, injections.

... it [game meat] has no additives and hormones.

Wild game has no cholesterol. And with red meats, there is a definite health concern for older people.

We bought some commercial meat but very little. Over 75% of our protein, I caught. It is way better for you, high protein, and low cholesterol.

... My daughter moved out and went to buy a big roast to have a party. Then she looked at the price and bought a tiny one. Now she wants meat from home. She never realized what it cost.

In addition to game meat, North Coast households' protein is also derived from a weekly consumption of fish. The fish is either procured by household members or given them by family, friends, or acquaintances. Sockeye salmon, as a net-caught fish was primarily procured from commercial fishermen or Aboriginal harvesters through trade, gift or informal sale. Coho and Spring salmon can be caught with a rod, and were a more common product of recreational fishing, as were the jigged fish (cods, halibut, red snapper). Shellfish (crab, prawn and shrimp) are caught in traps, commonly left to soak while fishing for other species. While there are daily bag limits on all recreationally-caught marine species, the ability of local residents to make many trips per season means that they can easily fill their freezers, jars or smokers with significant amounts of fish and shellfish.

Berries provide homemade jam and preserves, offering alternatives (such as huckleberry and salmonberry) to the ubiquitous strawberry and raspberry storebought varieties, and pesticide-free ingredients.

Value of Informal Economy (Wild Food Harvesting) - Expanding the Capacity of Individuals and Communities

Interviews with active harvesters of the North Coast indicate that participation in an informal economy creates an opportunity for both greater self-reliance and coreliance. Interviewees explained the extent to which their household were sustained by local resources:

In the summer we eat fish almost everyday. In the winter we eat more moose.

The rest of the year we eat fish once every 2 weeks. Either the canned fish, or fresh fish that friends give us. When we get a halibut we will eat that 3 days in a row.

I take one moose a year, the odd goat and the odd bear.

I take my moose in Dease Lake. I have been doing that for 30 years, with one partner. ... I have it butchered. We eat game twice a week [household has 3 adults, one infant]. And I provide meat to 2 other households.

In addition to being a source of food, the resources on the North Coast also serve other purposes. Interviewees identified the many ways they use the land:

Prince Rupert Harbour, Digby Island and the Kinahan Islands - It's our home. We used to get our firewood here when we used to heat with wood. We still use it for food gathering, picnicking, camping, beach combing; skating on lakes when frozen, rock collecting and seaweed collection for our gardens. We also visit old army sites, which are part of Prince Rupert's history.

People share food, strengthening ties between family and community members.

I share my seafood with anyone walking by when I'm unloading.

I don't do any bartering.

The preceding passages explored the social networks within which wild food harvesting, consumption, and distribution occur were revealed. These social networks need not only be used for harvesting purposes. In fact these social systems can be maintained beyond the activity of hunting or fishing and may instead be transformed to fulfill many purposes and functions. As stated previously, the social groups that go hunting and fishing together are developed in a variety of fashions. Some of these alliances are established and nurtured around groups of people who work together in the formal economy, such as a number of mill workers or commercial fishermen.

The formation of alliances in the wild food harvesting processes provides opportunities for individuals who are seeking work to create an impression or to establish contacts. For those individuals who work together in the formal economy, harvesting provides an opportunity to strengthen social bonds that will be of consequence in the work environment. The formation of productive alliances and the building of capacity at the individual level ultimately enhance the capacity and resilience of the community. In the scholarly literature Reimer (2006:42) claims that:

The exchanges and service activities of the informal economy require a level of reciprocity that affirms trust and continued interaction. It is a context in which new relationships can be formed and tested without high risk, information is passed between and among employers and employees, and new ventures can be explored.

The informal economy thus supports the physical and economic wellbeing of households, but also reinforces social connections and enhances individual and community capacity. At the time of the research, the resource-based economy of the North Coast was at a low. Self-provisioning provided a supplement to household incomes, but also was also a source of pride and social and environmental connection. Harvesting enhances the quality of life by getting people out on the land in a social activity. Those interviewed emphasize how healthy this is – not just in the healthiness of the meat, but of the activity itself. One participant said he began hunting because he didn't like the bar scene. Some of the men interviewed were in their 60s and 70s, but continue to be physically active out of doors. One of the interviewees explained:

I go hunting to get up into the mountains. I enjoy it. I go often just for the hike. It's more for fun at my age.

Harvesting also serves to strengthen family ties and provides an opportunity for the transfer of knowledge and skills from one generation to the next concerning the land and resources of the region. Many interviewees spend a great deal of time hunting and fishing with their children. One of the hunters interviewed stated:

I take my 4 grandsons moose hunting and my 4 granddaughters wanted to go. I started taking the girls to the Charlottes. I'll go for goat soon, with my daughter.

Harvesting activities are often incorporated into family vacations, as one of the residents explains that the:

May long-weekend is a traditional family outing. We go camping in the Kitwancool area and target cutthroat fishing in the lake. We keep an ice cream bucket full and smoke them, fry them. We go motor biking and have small boat. I have a jet boat, fiberglass boat, car topper and a raft.

Each of these resource-dependent activities serves to strengthen family ties and provide opportunities for the transfer of socio-cultural knowledge, in particular knowledge about the land and resources. Anthropologist Milton Freeman writes:

It is through the seasonal and annual repetition and transfer of appropriate knowledge and behavior to succeeding generations that important aspects, indeed core values, of the culture of the group are reproduced over time, and the cultural identity of the individual and society thereby assured. [Freeman 1993:246]

While Freeman's land use research focused on Indigenous peoples of the Arctic and Subarctic, it is critical to recognize the social and cultural value of harvesting in non-Aboriginal families and communities. The multi-generational patterns and traditions of resource harvesting in the North Coast are a key aspect of regional identity, particularly in differentiating the lifestyle from that of urban British Columbians. The region's relatively poor climate and lack of infrastructure are consistently downplayed by reference to the benefits of the land-based lifestyles and unique opportunities for recreation.

Harvesting has the potential of improving an individual's quality of life by enhancing an individual's sense of self-worth and is related to the notion of selfreliance discussed in previous passages. Being in a position to harvest one's food is empowering. This notion of procuring food as empowering is articulated in the following ways:

We bought some commercial meat but very little. Over 75% of our protein, I caught. It is way better for you, high protein, and low cholesterol.

Hunting is not a finance thing. I can buy all I need from Safeway. It's a preference. 75% of it is because it is fun and I enjoy it. However, if you took away the incentive [procuring meat], I wouldn't be out there as much. Meat is definitely the driver. ... Bringing something home for the table is part of your nature.

There is no such thing as [pure] subsistence in this day and age ... Because everyone can afford a freezer and can afford to buy meat. It's about priorities. At the same time, while it is a sport, it is critically important because it is ingrained in people, this hunter-gatherer instinct. Still bringing something home for the table is part of your nature. It's a bit hard to describe.

Before, I hunted harder because I had a family to feed. I kill less now because I don't need it. My kids were brought up on wild meat. If you thought about what it cost, financially, you would do something else. I am not a trophy hunter. Everything I take, we eat. The meat hunter shoots anything he has a recipe for.

The research participants from outlying communities, such as Oona River, were particularly proud of their self-reliance, and minimal dependence on the industrial food system. There is a confidence associated with knowing that one can feed oneself on local resources, and a pride in the skills necessary to do so. Harvesting thus enhances community resilience economically and socially. During the downturn in the fishing and logging industries, workers were able to maintain their ability to provide food, and maintain their self-worth.

Finally, harvesting has the potential to improve one's quality of life by creating a sense of belonging and attachment to place. As stated earlier, interviewees viewed maps of the region as they were being interviewed. While looking at the maps of the region, one of the individuals stated: It's all my home....The most spectacular scenery in North America. The Rocky Mountains do not compare to this place, it's unexplainable.... It is so pristine there you can hear silence, if you know what I mean.

Kwinitsa and Exchamsiks. – Every one of these river valleys, I've hunted and fished up. They are beautiful. ... The more the rest of the world goes crazy, the more people will want to see our systems.

We make our living working the entire coast, so everything is important to me. The whole coast, all the way from the Alaskan border down to Vancouver Island and the Queen Charlotte Islands is our work and our pleasure.

It's difficult to determine costs of fishing because it is part of our lifestyle. Fish is a critical part of our nutritional intake, our health depends on it, we wouldn't be able to maintain this lifestyle without fish, it is an integral part of our lifestyle.

Harvesting creates an intimate connection between people and the land and resources. Participation in the informal economy thus connects people with each other, and with their ecosystem.

Conclusion

The harvesting and traditional economic activities of the Indigenous peoples of the North Coast have been a focus of academic research for over a century and a half. The commercial resource-based activities of the settlers of the region have been investigated during the last three decades. However, the informal economy and subsistence use of the land base by non-Indigenous residents of the region has been relatively ignored. The Gitxaala Nation co-exists in a shared space with its non-Indigenous neighbours and is increasingly required to collaborate with them to plan for the protection of both the resources and the resource-based economy through land and marine use planning processes. Awareness of each other's values, goals, and aspirations is critical to co-existing in a shared space and planning for the future. Research focused on the self-provisioning practices of the non-Indigenous residents of the North Coast serves as an introduction between the two groups a practice engaged in between neighbours. As they discussed their self-provisioning practices, the non-Indigenous residents also revealed their aspirations, priorities, and values. Interviewees articulated extensive knowledge of, as well as, respect for the land and nature. They talked about sharing of food, tools, and knowledge, and the reciprocal relationships such sharing creates.

Some of those interviewed have lived on the North Coast for many years, or their families have lived there for generations. Their grandparents and parents harvested the land as they do now, using knowledge and skills passed on from these preceding

generations. Individuals interviewed expressed concern about changes (e.g., increased access; logging; pollution) that have the potential to further stress the land and waters that provide them with food, fuel, a sense of belonging, and pleasure. Such an exchange of information between neighbours is important and can serve to inform decisions and practices that have the potential to affect the North Coast regions that different groups share.

Activities associated with the informal economy are not measured and therefore their value is largely invisible. By focusing on harvesting from the point of view of activities rather than currency, this study sought to make visible both the informal economic activity on the North Coast as well as the benefits of participating in wild food harvesting. This research demonstrates the extent and persistence of wild food harvesting on the North Coast as well as the significant benefits it provides. Furthermore, it emphasizes that an informal economy exists on the North Coast because a significant resource of the land is wild food. Therefore, future land management plans should ensure the sustainability of this renewable resource, thereby enabling and supporting wild food harvesting as a contribution to the formal economy and the general good of the region's residents.

References

British Columbia Ministry of Sustainable Resource Management

- 2005 North Coast Land and Resource Management Plan: Final Recommendations. Available at: https://www.for.gov.bc.ca/tasb/slrp/lrmp/nanaimo/ncoast/docs/
- Berkes, F., P.J. George, R.J. Preston, A. Hughes, J. Turner, and B.D. Cummins
 - 1994 Wildlife Harvesting and Sustainable Regional Native Economy in the Hudson and James Bay Lowland, Ontario. Arctic 47(4):350-360.
- BC Ministry of Sustainable Resource Management.
 - 2005 North Coast Land and Resource Management Plan: Final Recommendations. Available at: https://www.for.gov.bc.ca/tasb/slrp/lrmp/nanaimo/ncoast/docs/ NCLRMP_Final_Recommendations_feb_2_2005.pdf. Accessed June 2016.

Bryman, Alan and Emma Bell

- 2007 Business Research Methods (2nd Edition). New York: Oxford University Press Inc.
- Ellison, Barry, Michel Arsenault, and Bill Reimer
 - 1997 The Informal Economy: Metro and Non-Metro Comparisons. In The Sociology of Labour Markets: Efficiency, Equity, Security. Axel Van Den Berg and Joseph Smucker, eds. Pp. 255-270. Scarborough, Ontario: Prentice Hall Allyn and Bacon Canada.

Freeman, Milton

1993 The International Whaling Commission, Small-type Whaling, and Coming to Terms with Subsistence. Human Organization 52(3):243-251. doi: http:// dx.doi.org/10.17730/humo.52.3.f12883h2r7ur6504

Gerxhani, Klarita

- 2004 The Informal Sector in Developed and Less Developed Countries: A Literature Survey. Public Choice 120:267-300.
- Harris, Douglas
 - 2008 Landing Native Fisheries: Indian Reserves and Fishing Rights in British Columbia, 1849-1925. Vancouver: University of British Columbia Press.
- McLain, Rebecca J., Susan J. Alexander, and Eric T. Jones
 - 2008 Incorporating Understanding of Informal Economic Activity in Natural Resource and Economic Development Policy. United States Department of Agriculture, Forest Service, Pacific Northwest Research Station, General Technical Report, PNW-GTR-755, June 2008. Available at: http://www. fs.fed.us/pnw/pubs/pnw_gtr755.pdf. Accessed June 2016.

Menzies, Charles

2006 Ecological Knowledge, Subsistence, and Livelihood Practices: The Case of the Pine Mushroom Harvest in Northwestern British Columbia. *In* Traditional Ecological Knowledge and Natural Resource Management Charles R. Menzies, ed. Pp. 87-106 University of Nebraska Press, Lincoln and London.

Newell, Diane

1993 Tangled Webs of History: Indians and the Law in Canada's Pacific Coast Fisheries. Toronto: University of Toronto Press.

O'Reilly, Karen

2005 Ethnographic Methods. New York: Routledge.

Reimer, Bill

- 2006 The informal Economy in Non-Metropolitan Canada. The Canadian Review of Sociology and Anthropology 43(1): 23-49.
- Teitelbaum, Sara and Thomas Beckley
 - 2006 Harvested, Hunted and Home Grown: The Prevalence of Self-Provisioning in Rural Canada. Journal of Rural and Community Development, 1:114-130.