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Conservation, Hunting Policy, and Rural Livelihoods In British Columbia

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Abstract

Hunting as a wildlife conservation tool has been the centre of much debate as climate change and increased pressure from human encroachment continue to impact wildlife species globally. As ongoing land use conflicts, natural resource extraction, and population growth threaten habitat, leaders face a dilemma around how to balance sustainable land use management while supporting rural economies. We explored the role of hunting in conservation and looked critically at the perspectives of hunters and those involved in hunting in the western Canadian province of British Columbia. A community-based participatory research methodology guided this study, and we collected data through semi-structured interviews with resident hunters, conservation officers, wildlife biologists, guide outfitters, hunting suppliers, and Indigenous hunters. The results can help inform inclusive policies that balance the needs of local peoples, communities, and conservation in rural regions. Diverse hunting stakeholders have unique knowledge of regional lands and wildlife management practices that are integral to socio-economic and environmental sustainability in rural regions.

Keywords: hunting, conservation, community-based participatory research, rural livelihoods; British Columbia

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1.0 Introduction

Hunting has been practiced for millennia and is culturally ingrained in societies across the globe. The relationships between wildlife and humans, which stem from early hunter-gatherer societies, are complex. Especially since the 1950s, hunting has brought significant economic resources to rural communities around the world (Dowsley 2009; Poudel, Henderson, & Munn, 2016) and these practices remain an important part of Indigenous peoples' cultures and livelihoods (Shanley, Kofinas, & Pyare, 2013, Robidoux & Mason, 2017). Over the last decade, there has been a notable increase in the number of resident big game hunters in British Columbia

(B.C.). Big game hunting has the potential to improve both the socio-economic conditions of rural communities and the ecological well-being of rural areas because it increases the value society places on land and wildlife (Freeman, Hudson, & Foote, 2005; Foote & Wenzel, 2007; Dowsley, 2009). Despite extensive histories and wide-spread participation, there has been recent controversy surrounding hunting policies, in particular, the debate surrounding the ban on hunting grizzly bears in B.C. that occurred in 2017 (British Columbia Government News Releases, 2017). These types of events have intensified mainstream media coverage of hunting practices which have questioned the role of hunting in the province and how it impacts both wildlife and land use management.

In this paper, we explore the diversity of big game hunting stakeholders in B.C. and how they interact and communicate with each other and the broader public in the production of hunting-related discourses in rural regions. Local perspectives are very important in ongoing conservation efforts (Creel, Becker, Christianson, Dröge, Hammerschlag, Hayward, Kranth, Loveridge, Macdonald, Matandiko, M'soka, Murray, Rosenblatt, & Schuette, 2015; Wehi & Lord, 2017) and incorporating hunters' knowledge provides an opportunity to highlight points of view that are not always considered. As early as the 1940s, Leopold (1949) discussed the significance of human involvement in wildlife management in order to ensure sustainability. However, there is a gap in research that considers the role that hunters play in the overall ecosystem health and their unique relationships with wildlife in rural parts of Western Canada. We examine the perspectives of hunting stakeholders and uncover differences among them, to acknowledge the complexity of the relationships between hunting stakeholders and how they affect wildlife management and conservation. While there are established frameworks to understand hunting industries in terms of contemporary wildlife and land uses, there is no comprehensive analysis of these central issues in rural B.C. that extend beyond hunting practices as economic drivers. Consequently, we consider the perspectives of local hunting stakeholders to depict their views on the core issues regarding hunting practices and their impacts on provincial lands and animals. We do not focus heavily on the ethical dimensions of human/wildlife interactions in this study, as we have examined this issue in our previous work (Boulé & Mason, 2019).

The main objective of this study is to emphasize the importance of including the diverse stakeholders' perspectives in hunting and conservation policy management, as they have unique knowledge of wildlife systems that could improve the socio-economic and environmental sustainability of rural regions. Findings from this research will help inform inclusive policies that balance the needs of local hunters, rural community members, and conservation. It will also contribute to existing information available to the general public, and potentially broaden their perceptions of the role of hunting throughout the province. Understanding the complicated relationships between wildlife and humans, particularly current hunting stakeholders, is crucial for effective land use management, conservation, and the long-term health of provincial ecosystems and rural economies.

2.0 Contextualizing Hunting Practices in British Columbia

Big game hunting in Western Canada has long been a source of controversy and conflict between hunters and non-hunters (Manore & Miner, 2007; Colpitts, 2002). In a contemporary context, this conflict exists among diverse user groups; whereas the conflict between the colonial Canadian government and Indigenous peoples has

existed much longer. As early as 1885, when local Indigenous communities were first excluded from hunting in Canadian national parks, government representatives enforced hunting regulations that controlled Indigenous harvesting methods. Many of these restrictions were justified by blaming local Indigenous communities for the decline in wildlife populations (Mason, 2020). While these exclusionary techniques in the name of conservation are highly problematic, hunting has played a role in conservation throughout North America (Binnema & Niemi, 2006; Sandlos, 2007). In particular, by creating frameworks that balance the conservation of wildlife habitat and sustainable hunting practices (Shanley, Kofinas, & Pyare, 2013).

Hunting is a major economic driver in rural regions (Reis & Higham, 2009). Some forms of big game hunting provide promising economic opportunities to rural communities (Dowsley, 2009; Poudel, Henderson, & Munn, 2016) and hunting can facilitate benefits to both conservation and local economies (Fischer, Weldesemaet, Czajkowski, Tadie, & Hanley, 2015). Hunting may also improve the socio-economic and cultural lives of local communities by providing more employment and increasing local revenue (Saayman, van der Merwe, & Rossouw, 2011; van der Merwe, Saayman, & Rossouw, 2014). This is noted in rural Canada and the United States, where economic benefits help with wildlife habitat improvement, support the economies of Indigenous communities, and aid in the conservation of endangered species (Dowsley 2009, Poudel et al. 2016). According to the Canadian Federation of Outfitter Associations, in 2017 the hunting and fishing outfitting industry contributed nearly $2.7 billion to Canada's gross domestic product and supported over 37 thousand jobs nationwide (Southwick Associates 2018). In B.C. alone, the hunting industry generates approximately $593 million in economic activity (The Conference Board of Canada, 2018).

While there is an understanding of the historical and economic importance of hunting in Canada, the voices of hunters are missing from hunting studies. There is a lack of knowledge of those most affected by changes to hunting regulations, including those who rely on it for subsistence and value the practice as a cultural or leisure activity. There remains a need to consult stakeholders when examining hunting industries (Eliason, 2016; Lovelock, 2003).

3.0 Methodological Approaches and Methods

We used community-based participatory research (CBPR) to assess the complex relationships among the diversity of hunters in the province. CBPR encourages meaningful engagement with communities in order to identify their key concerns and privilege the knowledge of participants (Frerichs, Lich, Dave, & Corbie-Smith, 2016). As this methodology focuses on the specific values and practices of participants, it has the potential to contribute to research that can inform the development of policy that truly considers their needs and perspectives. In particular, CBPR can bridge the gap between academic research and local knowledge (Jagosh Bush, Salsberg, Macaulay, Greenhalgh, Wong, Cargo, Green, Herbert, & Pluye, 2015) by developing frameworks that profile local knowledge and integrate participants in the research process.

There are several key criteria to CBPR that were critical to this study: To promote active collaboration and participation in research; ensure the research process is community-driven and culturally appropriate; and disseminate research in useful terms. Conversations with several identified hunters took place over several months prior to data collection to understand and identify the main issues and concerns from

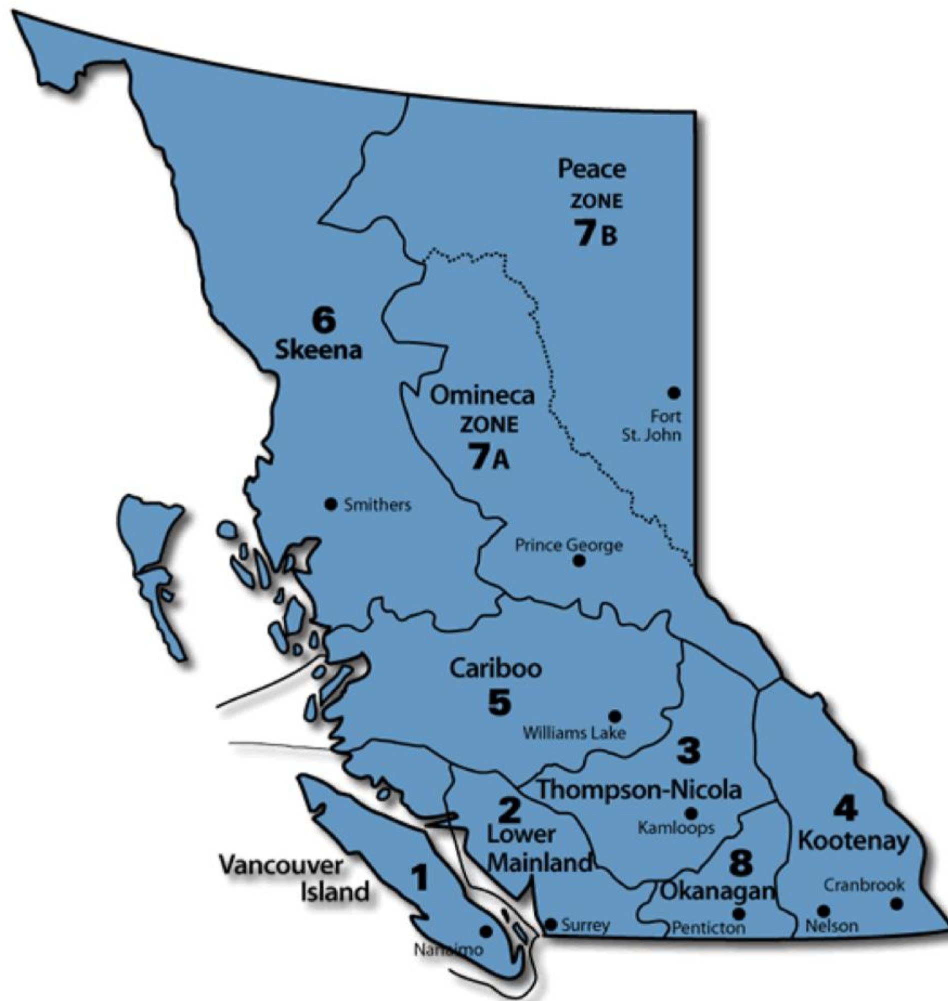
the perspectives of hunters and stakeholders in hunting industries. The discussions with these hunters centred around the most valuable and useful methods of data collection and the focus of the study. This both informed the direction of this project and shaped the questions that were developed in the semi-structured interviews. A key aspect of CBPR frameworks is the input from participants to inform the development of research tools. The interview guides were co-developed with participants to highlight questions they felt were relevant to the discussion about conservation and hunting practices in the province. Participants were also actively engaged in recruitment to foster a snowball sampling approach. At the advisement of participants, these findings, driven by stakeholder perspectives, have been shared at community symposiums and continued to be discussed with hunting and trapping clubs, with government officials, and non-profit hunting organizations such as the B.C. Wildlife Federation.

We conducted 25 semi-structured interviews between September 2015 and January 2018. Each interview lasted between twenty minutes and two hours. Of these interviews, two participants were female; the remainder were male. Participants ranged in age between 23 and 74. All of the participants are residents of B.C. and identify as hunters. Using direct quotes, a sample of perspectives from hunting stakeholders are integrated into the sections below. These stakeholders include: conservation officer (CO) (1); wildlife biologists (2); resident non-Indigenous hunters (22); Indigenous hunters (3); hunting supply business owners and guide outfitters (3). Note that some participants identify within two categories. For example, one participant is a resident hunter and a CO. This study concentrated on hunting stakeholders who either reside in and/or hunt in the Northern Interior areas of B.C. Resident hunting is done by those who are residents of the location in which they are hunting. In this paper, hunters are considered resident hunters if they live within the province of B.C. There are over 105,000 resident hunters in B.C. and they have the historical right to hunt in all provincial hunting regions of the province as long as they are following proper protocols and policies. These include restricted seasons, bag limits, and hunting tag allocation. The following regions are included: the Cariboo Chilcotin (Hunting Region 5), Thompson Okanagan (Hunting Region 3), Kootenay Rockies (Hunting Region 4), and Northern B.C., Omineca and Peace (Hunting Region 7a and 7b) Regions (see Figure 1). These areas were chosen to highlight the hunting needs and motivations within rural communities of the province.

All of the interviews were voice recorded and transcribed verbatim by the researchers. Questions centred on three ideas: (1) the role of hunting in conservation, (2) hunting stakeholder relationships, and (3) land use regulation and policymaking. The data analysis was guided by a specific process of content analysis that involved multiple steps (Elo & Kyngäs, 2008). The data were analyzed to denote common and divergent patterns related to the participants' perspectives. The authors each read through the transcripts multiple times using open coding and then discussed the categories to identify relevant sub-themes. The key themes included: hunters as a component of ecosystem health, current consultation processes, and stakeholder relationships in hunting industries. Trustworthiness was established through the collaborative nature of the data analysis and content validation. Participants were provided with their own verbatim interview transcripts to ensure reliability and accuracy, and to allow for edits before the research was consolidated into final themes. All participants were offered anonymity, but only three participants accepted due to the nature of their occupation. Consequently, their names (replaced

with pseudonyms) and the regions in which they reside and work have been removed from the paper. The remaining participants chose to be associated with their opinions, and subsequently, their names have been included below. Ethics approval for this research was granted by a University Research Ethics Committee (#101605). Upon the completion of this project, a lay summary of the research findings was provided to all participants to share with other stakeholders and community members.

Figure 1. Rural Hunting Regions of British Columbia.



Map of hunting regions in the Northern Interior areas of B.C.
Source: British Columbia Ministry of Forests, Lands, and Natural Resource Operations [BCMFLRO], 2020.

4.0 Hunters, Conservation, and Rural Identities

Humans have significant relationships with wildlife that began in prehistoric times (Lewis, Burns, & Jones, 2017). Humans have major impacts on ecosystem health, including wildlife populations. In North America this is largely because many people value wildlife as a resource, human populations are increasing exponentially, and technology makes it easier to hunt efficiently and effectively. However, humans are also considered part of the natural world as we both alter

and benefit from its resources. Therefore, we must also be considered in the planning and management of conservation efforts (Grumbine, 1994; Feldpausch-Parker, Parker, & Vidon, 2017). Within many Indigenous communities, humans are considered intertwined with and part of the natural world (Field, 2008). For example, in the Canadian Rocky Mountains, Nakoda peoples have millennia of experience living and migrating through the mountain ranges, trading, fishing, gathering, and hunting. Nakoda people are recognised as central components of regional ecosystems (Mason, 2014). Local knowledge, garnered from centuries of experience on the land, is an important perspective to consider in environmental management and monitoring (Herrick, Lessard, Spaeth, Shaver, Dayton, Pyke, Jolley, & Goebel, 2010). Much of conservation science is based on the idea that the land is a biotic mechanism, where multiple parts must work together to support an ecosystem and the dynamic relationships within it. One important aspect of engaging in effective conservation practices is considering numerous components of the natural world together, including flora and fauna, all the way up to apex layers, namely, humans (Leopold, 1949).

Managing an ecosystem by controlling the top predators, known as top-down management, is a type of wildlife management strategy because top predators can influence the function and structure of ecosystems (Sergio, Caro, Brown, Clucas, Hunter, Ketchum, McHugh, & Hiraldo, 2008; Estes, Terborgh, Brashares, Power, Berger, Bond, Carpenter, Essington, Holt, Jackson, Marquis, Oksanen, Oksanen, Paine, Pikitch, Ripple, Sandin, Scheffer, Schoener, & Shurin, 2011; Eisenberg, Seager, & Hibbs, 2013; Wallach, Ripple, & Carroll, 2015). This includes humans. Lewis, Burns, & Jones (2017) suggest that humans are in a unique position as they have the ability to both reduce wildlife populations on multiple trophic levels and impact the availability of key resources, including habitat. During the interview process, many interviewees talked about the notion that humans are a key part of the ecosystem and consequently affect it. Sean, a Wildlife Biologist and hunter in B.C. states:

> We are part of the ecosystem right? That is the main view that I would have that we aren't separate from it … we are part of the ecosystem … we always have been … if it wasn't for hunting you probably wouldn't be here... none of us would be (Sean, personal communication, January 15, 2018).

Many of the hunters interviewed argued passionately for the idea that they have a role to play in wildlife and land management. In this discussion, some of the hunters, including Scott, a hunting supplier, had concerns about humans not including themselves as key players in conversations about these complex processes:

> [some] urban people, put the planet on a pedestal but there is a difference between preservation … and conservation and wise use … And they forget that we are as much a part of this planet as any animal … and if we want a healthy world we have to continue to be a part of it and interact with it (Scott, personal communication, December 7, 2017).

Several participants echoed Scott's point and emphasized that the removal of humans from conversations about conservation and wildlife management is often a

result of differences between some rural and urban perspectives. Sean points out that regardless of how distanced people may be from land use management, everyone is utilizing these resources:

> We are definitely not separate from [the ecosystem] … The other thing is some of the stuff we have done on the landscape that everybody benefits from ... Logging, you know people that even live in urban centres … people who are removed from this kind of way of life benefit from that stuff right … but we have done things to the landscape that in some cases necessitate hunting too (Sean, personal communication, January 15, 2018).

How we are using our resources and their exploitation is what makes Aaron, an Indigenous hunter from Skwlax, B.C. and the fisheries and aquatic manager for North Little Shuswap Lake Indian Band, resistant to too much human involvement in wildlife management:

> The way we should be involved is helping keep the populations strong but at a steady pace … but the part of me that says no to humans being involved is because we are causing more damage to the environment than anything else … and it's a sad thing to say but people, when they want something they will go and do anything at any cost to get what they want …. hurting the environment in many ways (Aaron, personal communication, January 23, 2018).

Perceptions of, or approaches to, humans' roles in wildlife or land management depend heavily on the perspective of the person considering the issue. While all hunters tended to focus on the interrelation between humans and the land they hunt on, the level of involvement that humans should have differed between individuals.

Hunting stakeholders emphasized the idea of connectedness to the land as an important aspect of conservation. Leopold's seminal work (1949) discusses the need to not only look at conservation science but connect this knowledge with the general public to help form clearly defined aspirations for healthy ecosystems. This concept of combining scientific knowledge and societal objectives in order to sustain the land is a theme echoed throughout the interviews. Many of the participants viewed their position as hunters as one that allowed them to have a better understanding of the natural world and its sustainability. Jesse, a resident hunter and the director of fish and wildlife restoration at the B.C. Wildlife Federation (BCWF), states:

> I think as a hunter or an angler … you end up being in situations where you get to experience wildlife kind of when wildlife is most active …. And as a consumptive user you get to understand the trends in abundance because sustainability is what dictates your ability to hunt …. And so if there are fewer animals it is going to affect your hunting … so you are maybe more tied to sustainability (Jesse, personal communication, January 24, 2018).

For Jeremy, a wildlife biologist, hunting is not only a hobby but a vital part of his ability to do his job effectively:

> The perspective that hunting has given me as a wildlife biologist is profound…. I know a lot of government biologists who are also hunters ... and I think they are better biologists for it…. Especially when it comes to making management decisions …. I don't know if I could really articulate it but … it creates a connection beyond what I think you would be able to learn in a class on population ecology…. When you are out there, spending time hunting I think it gives you a much more rounded perspective … a much more realistic perspective on what is going on (Jeremy, personal communication, January 12, 2018).

As Jeremy touches on, knowledge can be gained by spending time on the land as a hunter. Other participants asserted that this connectedness to the land creates a unique relationship between hunters and wildlife, and the relationship is fostered by time spent on the land observing animal behaviour. However, not all motivations are the same among hunters. As expressed by Aaron, his particular relationship and respect for wildlife comes from a long history of traditional Indigenous teachings and a reliance on animals for subsistence:

> I was raised by my grandmother who always taught us to only take what we needed to survive …. And not be greedy by over taking … so that is my view on wildlife and this is my connection with them....I am only going to shoot one to three deer for me and my sisters ... or one moose or something that we can all split up…. The way I look at it is if I am leaving more than I take then there is always going to be some there to … to breed and keep their populations going strong as well (Aaron, personal communication, January 23, 2018).

Rochelle, an Indigenous hunter from the Tahltan Nation in Northern B.C., reiterates how this level of respect for wildlife and the land they live on leads to better conservation:

> It's a very deep respect…that is what hunting is about, it's about learning respect… that is one of the biggest lessons you get from hunting ... Respect the land you are on and respect the animals you take… And you respect it by utilizing it all and not wasting or not taking too much (Rochelle, personal communication, October 26, 2017).

Both Rochelle and Aaron emphasize that their practices are for subsistence and that respect and sustainability in hunting come from a lack of wastefulness. While not all hunters follow traditional Indigenous teachings and practices, greater concern for

sustainability can lead hunters to become more involved in organisations that advocate not only for game species but also for overall ecosystem health. Several participants revealed that they help fund and support conservation through organisations such as the B.C. Wildlife Federation and volunteering time for stewardship activities.

The link between hunters and wildlife goes beyond simply an appreciation for nature and the practice of hunting. For some, hunting is engrained in Canadian culture and has played a vital role in Canadian history. Since the late 18th century in Western Canada, hunting has been a fundamental part of forming some Euro-Canadian identities. As the fur trade extended into western parts of Canada, people more and more saw "nature" as a resource to fulfil human needs, particularly as a source of food and as a means of developing economies (Colpitts, 2002). During this time, people participated in hunting as a way to provide income and subsistence, but also as a hobby that allowed them to escape the conventions of urban life and reconnect with a lifestyle that predated the agricultural revolution (Loo, 2001). For many Indigenous peoples and communities in Canada, wildlife is central to their cultural practices, including traditional harvesting through hunting, a skill passed down from generations of Indigenous Elders (Gougeon, 2012). Janelle, a Carrier Dené hunter from north-central B.C., speaks on the cultural importance of hunting to her community:

> I think it just comes down to a cultural understanding of why it is important…. I don't think people realize how much it affects … especially our Elders… because they keep stock all year because of the meat that is given to them … if you weren't to give that meat to Elders, fill their freezers, they wouldn't have that to eat (Janelle, personal communication, 2017).

Rochelle speaks to her personal motivations to hunt and how that is intertwined with her Indigenous culture:

> To keep my culture alive and in my life … because my family history is so tied to hunting … both my dad and my mom's side … so it was a way of survival for my mom's family… and it was a way for survival of my dad and his dad and I am sure his dad before him (Rochelle, personal communication, October 26, 2017).

Inter-generational hunting was discussed by both Indigenous and non-Indigenous hunters as expressed by Scott:

> Hunting has always been a part of our culture … and especially where I grew up … hunting has a very long history going back probably many centuries… it is something that my dad did with his dad, and he did with his dad, and now my son and my daughter both do with me (Scott, personal communication, December 7, 2017).

Participants suggested that hunting is engrained in their culture and heritage, and they indicated that cultural connections to hunting are part of what motivates them to protect wildlife for their own families and communities. This was especially relevant among the Indigenous participants as they voiced fears about the loss of cultural traditions that could result from hunting being restricted.

Various hunting stakeholders expressed their view that hunters hold different cultural values from one another. However, despite these cultural differences, hunters' values all included an interest in sustainable practices and conservation. Participants suggested that their experiences as hunters have fostered unique relationships with wildlife. These relationships have led hunters to feelings of profound connectedness to regional lands and broader rural ecosystems and have provided knowledge to hunters that positions them to help shape sustainable practices. Connecting research to these perspectives will help protect the health and function of both land and wildlife. Despite the shared view among hunters that they should be part of wildlife management, there remain other factors in these relationships that prevent joint initiatives to protect and support B.C.'s hunting industries and sustainable land uses in rural parts of the province.

4.1 Stakeholder Relationships and Hunting Practices in Rural Regions

Considering the perspectives of stakeholders is recognized as one of the most effective ways to study complex and controversial topics (Nelson, Bruskotter, Vucetich, & Chapron, 2016). In B.C., hunting stakeholders consist of many groups and individuals. To ensure the longevity of hunting practices, hunters have a shared desire for wildlife and the land wildlife live on to remain healthy. To foster sustainable practices, it is necessary to balance the needs of all hunting stakeholders, with a focus on local communities (Reis & Higham, 2009). What remains unclear is how motivations and perceptions align among and within these different groups, and the state of the relationships between them. In some regions of B.C., several of the main species that are hunted are in decline, including moose, elk, and mule deer, yet they continue to be hunted (British Columbia Ministry of Environment [BCME], n.d.a). To assess the suitability and possibility of working together towards sustainability goals, it is important to understand how different types of hunters, with diverse motivations, interact with one another. Interviewees revealed that these relationships are complicated. For example, wildlife biologist Sean discusses his relationship with the resident hunters, as a government employee and regulation maker, and the impact of the policies he puts into place:

> We have a good relationship in this region with resident hunter groups … some regions don't depending on the decisions they have made in the past and the credibility they have with stakeholders … if you don't have that credibility with stakeholders they don't trust what you are doing … if they trust what you are doing … it's easy… there is no big push backs on the decisions that are made (Sean, personal communication, January 15, 2018).

Sean emphasizes that it is the trust built between himself and the various hunting groups, as well as his experience as a hunter that gives him credibility. As he explained it, his vested interest in hunting helps him maintain an open and effective relationship with the different hunting stakeholders. This was not only the case for

participating resident hunters, but also for guide outfitters and members of Indigenous communities who were interviewed. Paul, a wildlife biologist, attributes this healthy relationship to what he sees as hunters' commitment to conservation:

> Well I think because most resident hunters make conservation their priority as much as they love hunting, if their hunting activities aren't deemed sustainable then they don't want to participate in them …. And I think most people respect that and if there are regulation changes needed to promote conservation…they are fine with that (Paul, personal communication, December 12, 2017).

This commitment to sustainability is also what contributes to a positive relationship between COs and resident hunters. Currently, there is a shortage of COs in B.C. due to under-funding, with only 150 COs to cover the entire province (BCME, n.d.b). Many COs are overworked and unable to cover as much land as is necessary to ensure that regulations are followed. This is particularly the case in the rural regions of the province, which are highlighted in this paper. As a result, much of the conservation responsibility has been put on hunters themselves. An example of this is the responsibility for hunters to report violations that they witness. Jack explains what this means for him as a CO:

> I think that an honest hunter … which most are … is a huge asset for us and our jobs as enforcement officers because there is only so many COs… even if there were lots of us we still can't be everywhere at once … and the hunters that are out there they want to keep their cohorts honest. So, when there are people out there breaking the rules, hunters are often the first ones to see them and they are the ones that call us and let us know what is going on and where…so that we can go out there and do our job (Jack, personal communication, November 23, 2017).

Maintaining positive relationships among hunting stakeholders is crucial to moving forward with conservation and sustainability goals, as well as ensuring that hunting is carried out according to regulations.

While, based on interviews, it appears that regulation-makers and enforcers have overall positive relationships with resident hunters, these relationships are inherently different with Indigenous peoples. As reinforced, at least initially, by the amended Indian Act (1951), Section 35 of the Constitution Act (1982), and historical and contemporary treaty agreements, Indigenous communities have a right to the land and to pursue cultural and subsistence practices, such as hunting, in many territories throughout the province of BC. In some circumstances, this means they are exempt from some hunting regulations. While legislation states that Indigenous peoples are allowed to hunt as they traditionally have throughout the province, this exemption does not apply to federal and provincial parks or protected areas (BCG, 2016). While some Indigenous communities engage in less regulated hunts, many Indigenous traditional lands overlap with parks and protected areas, and consequently,

Indigenous peoples are excluded from hunting in those areas. As well, government officials and Indigenous communities maintain a partnership when it comes to wildlife sustainability through consultation with Indigenous groups when making or changing policies and regulations. The importance of considering Indigenous peoples' perspectives is described by wildlife biologist Jeremy:

> I think we have a lot to learn from Indigenous perspectives on hunting… I think it's a basic idea. You have a group of people who have been living off this land for tens of thousands of years and there are stories … histories there that we would all benefit from … so that's kind of a philosophical perspective I guess on the practical wildlife management side of it … I know that First Nations' hunting is not regulated. That is a real difficult factor to work into a formula for wildlife managers who are trying to kind of set sustainable limits on big game animals that we hunt. (Jeremy, personal communication, January 12, 2018).

There is often misunderstanding about the laws and regulations in place for Indigenous hunters, and many people in B.C. mistakenly believe Indigenous hunters are not regulated. While Jeremy is in support of consultation with Indigenous communities and recognizes the unique value that Indigenous perspectives bring to wildlife management, he also suggests that the hunting rights afforded to Indigenous people in Canada contribute to species decline. This is complicated in part because of the confusion over the regulations for Indigenous hunters, but also as a result of Canada's history of colonization. While many Indigenous communities work with governments on conservation initiatives, resistance from some Indigenous communities to work with government officials stems from generations of colonial violence, legislation designed to repress and assimilate Indigenous cultural practices, and the policies that displaced Indigenous communities and excluded Indigenous hunters from key harvesting sites. This occurred in numerous locations throughout Western Canada and remains a source of conflict in many communities (Mason, 2014). These processes of hunting regulation were justified in the name of "conservation" as Indigenous subsistence practices were blamed for declines in wildlife populations. This exclusion negatively impacted the ability of many communities to access critical food sources and resulted in a loss of traditional cultures and practices (Binnema & Niemi, 2006).

Aaron, who is trying to build relations in his own community and reduce conflict, also talked about a desire for all hunting stakeholders to work together to manage wildlife health and numbers:

> I am just starting to create a relationship with conservation officers … and we need to start working together because I find that is the only way changes are going to happen…. I find if we just sit back and don't do anything then we are just leaving ourselves out of things … So I find that the only way that the First Nations communities can kind of be involved in every way is to have these relationships with government agencies … so that we know

> what they are doing and they know what we are doing so that we can be on the same page (Aaron, personal communication, January 23, 2018).

While there is movement towards government agencies and Indigenous bands working together, the relationship between Indigenous hunters and resident hunters, two of the main user groups, remains complicated. Aaron shares his perspective on the topic:

> I know a lot of non-Native hunters look at First Nations badly about [being unregulated] …. I know there are a lot of people out there that do know First Nations are very conservational towards preserving wildlife as well… And I find that the relationship between those hunters are really good because they know we are not out there to kill every animal…. And then there has always been haters no matter what … I kind of find it challenging for First Nations sometimes because of that view … that we don't have to follow rules and we always get stereotyped…. it's a challenge trying to explain to people that we are not that way (Aaron, personal communication, January 23, 2018).

The relationships and communication between the different groups are key factors in mitigating conflict that originates from a lack of understanding on the part of some Euro-Canadian hunters, of Indigenous traditional practices and land rights. Janelle explains:

> There is definitely a little bit of clashing between the predominately white town and the First Nations communities … it's a kind of drama back and forth of whether the land is being used for the right purpose or whether the community is being selfish for hunting more than communities or whether you are taking it for granted that they can. I think it's misinterpreted … it creates a lot of racial tensions between the communities because they think they are getting special treatment or something but it's something that is traditional in the community and it has been going on for hundreds or thousands of years (Janelle, personal communication, November 22, 2017).

The right to access lands is an area of major contention and conflict between hunting groups. Some of the Indigenous participants talked about being resentful towards upper-middle-class hunters from urban centres, such as Vancouver, for the exploitation of their resources. Some participants said that these Indigenous communities have trouble harvesting enough food for their own subsistence and ceremonial purposes. The question of what hunting rights someone who resides in another region of the province should be able to exercise, especially in the context of unceded Indigenous territories, is one filled with complexity and conflict. However, it is not just a lack of knowledge and understanding between various

groups of hunters that causes turmoil, but also an increasing scarcity of resources. Many of the Indigenous participants highlighted the frustration that stems from mounting food insecurity for northern and rural Indigenous communities, and this is well supported in scholarly research (Robidoux & Mason, 2017; Dowsley, 2009). This growing concern over the lack of resources is exactly why several hunters emphasized the importance of hunting groups starting to collaborate more often. Much of the conflict centres around misperceptions of each groups' practices and their perceived compatibility with sustainability (or lack thereof). These issues highlight both Indigenous and non-Indigenous participants' passion towards conserving wildlife, yet their ability to communicate and work together still needs to be improved across the province.

Animosity between guide outfitters and resident hunters was also noted in the interviews, as these groups also fight over dwindling wildlife hunting resources. Wayne, a resident hunter in the province, explains why allocation among different hunting groups is the reason for conflict and shares his views on the right of resident hunters to hunt within B.C.:

> I'm not happy with the allocation process, you know … to give to foreign hunters and all that … With the allocation process it's just that how much… how many animals they say the guide outfitters can harvest… If they give more to them then they are going to cut back on us, the resident hunter … they have to keep close track of it and actually it's a British Columbian resource … so I think they have to look after the resident hunter…. Sure, have some out of province and out of country hunters… but I don't think they should really be increasing it if they are going to cut back on what we are allowed to harvest (Wayne, personal communication, November 23, 2017).

While there are various opinions and issues within and among the different groups, it seems that at the core of these issues is a concern for wildlife conservation in order to ensure the longevity of hunting within the province. Aaron sees the need for more sustainable harvesting efforts in his community, which is why he is hoping to implement more policy:

> We are actually just talking at work … my co-workers and I, on how to write a hunting policy for First Nations' peoples on our reserve here …. So, we are working on that and how to preserve our deer for future generations so that our younger kids will have food when they get older .... we need our deer populations to stay strong for future generations….(Aaron, personal communication, January 23, 2018).

The relationships between different hunting groups are devolving as everyone faces a declining resource base, changing regulations, and implementation of emerging rules and rights. There certainly is stereotyping and blame placed on different types

of hunters, with Indigenous hunters encountering the bulk of criticisms of their harvesting practices. Issues around Indigenous hunting are much more complex than simply groups of hunters having different viewpoints. In the context of B.C., over a century of colonial violence—which has in many cases redefined Indigenous subsistence hunting as illegal—fuels contemporary tensions between non-Indigenous and Indigenous hunters, particularly in rural areas. Systems of colonial repression regularly aligned government officials with COs and the police to target Indigenous subsistence practices (Furniss, 2000). For obvious reasons, and as indicated above, there is a lack of trust and respect concerning hunting, fishing, and harvesting practices in many Indigenous communities throughout the province. Instead of offering clarity, legal precedents on Indigenous harvesting practices (R. v. Sparrow, 1990) and land claim decisions in the province (Nisga'a Treaty, 2000) have only served to intensify animosity between groups around issues of who has the authoritative power to make decisions about hunting and who determines access to key hunting territories.

While conflict among user groups who share natural resources has been studied (Reis & Higham, 2009), the emphasis is typically put-on hunters in conflict with other user groups, such as wildlife viewers and hikers (Lovelock, 2003; Eliason, 2016). Very few studies exist that examine the conflicts between different hunting stakeholders. Communication and collaboration between the groups, as well as a willingness to work together, would be useful in the face of increased social pressure and negative public perceptions of hunting, regulation changes, and highly publicized hunting incidents that call into question the validity of hunting practices and industries.

4.2 Rural Land Use Management, Policy Development, and the Grizzly Bear Ban

As climate change threatens wildlife populations globally, researchers and activists continue to assess the necessity of consumptive wildlife activities in the name of conservation (Creel et al., 2015). Hunting, a consumptive activity, is often questioned because it involves killing wildlife (Tremblay, 2011). One recent example of the controversy around hunting and conservation of wildlife species is grizzly bear harvesting in B.C. These large apex predators are an integral part of North America's ecosystem, a symbol of ecological integrity, and an important part of Indigenous cultures, especially in B.C. and throughout Canada's Northwest (Clark & Slocombe, 2009). The species is on the national Species at Risk Public Registry in Canada due to dwindling numbers (Committee on the Status of Endangered Wildlife in Canada [COSEWIC], 2018). While it is clear that grizzly bears are in decline continent-wide, in 2012 it was estimated that B.C. has approximately 15,000 bears, a quarter of the total population in North America. Nine of the fifty-six population units in B.C. are classified as threatened. Besides a one-time season ban in the spring of 2001, hunting grizzly bears has been permitted in most of the province, with an average of 297 bears harvested annually (Environmental Reporting BC, 2012).

The British Columbia New Democratic Party, when elected as the provincial government in June 2017 (recently re-elected with a majority government in October 2020), promised to put an end to the grizzly bear hunt. As social concern grew, the polarizing controversy was consistently covered in the media. The December 18, 2017, announcement of a ban on the hunt was based largely on the government's

public consultation which found that the hunt did not align with the general public's values (Pynn, 2017). Participants point out that many guide outfitters and hunters were concerned about the repercussions of this decision. They argue the ban was dictated by social influence and pressure, as opposed to scientific evidence. Furthermore, the ban will negatively affect the Guide Outfitters Association of B.C. as it will eliminate a significant portion of their business. Numerous participants explain that many outfitters are reliant on allotted grizzly bear tags, and without this source of income, their businesses will not be viable. If these outfitter and guiding businesses closed, detrimental impacts are anticipated for some rural economies in the province where there are few employment or economic alternatives. A similar result was experienced by some Inuit communities in the arctic when polar bear tags in Nunavut were reduced (Dowsley, 2009; Foote & Wenzel, 2007). This controversy serves as an ideal case study of how wildlife conservation regulations are made, the role of public opinion in these processes to impact the future of hunting industries and the rural livelihoods they support. Sean discusses the regulation change in his role as a wildlife biologist:

> With the grizzly bears it's crazy … it's entirely a social political decision [the government] made … we have a lot of great science on grizzly bears … [the regulation change] kind of undermines our jobs … and over time, due to the pressure from these anti-hunting groups and the rest of them … like we even manage grizzly bears at a way lower level than we could to keep their numbers stable … and so it had nothing to do with us … I mean we learned about it the same day everyone else did … there are not too many of us who are happy about that (Sean, personal communication, January 15, 2018).

Sean expressed genuine confusion about the regulation change. Much of the discussion about the grizzly bear hunt took place in the peer-reviewed literature, with researchers on both sides of the debate presenting evidence. However, this evidence is not always available to, or easily accessed by, hunting stakeholders.

Not all the participants were upset by the actual ban, but rather did not understand the process of how the regulation was made. The most important concern for many of the interviewed hunters seemed to be how this type of regulation change might impact future policies and hunting rights:

> I think the danger is ... especially with this grizzly bear closure … not that I am pro hunting of grizzly bears, but the scary part is…that it really seems like it's a decision that is made by people in large urban areas that are completely disconnected with these wild places and that has put a lot of fear in the hunting community because it's a slippery slope… (Jeremy, personal communication, January 12, 2018).

Participants state that the key issue from their perspective was that the decision did not appear to be founded in research; it was derived from social pressures and only

considered the short-term repercussions of hunting. This issue stems from a lack of communication between researchers and hunting stakeholders. While the research is available, hunting stakeholders do not always have access to the journals in which it is published or know where to find it. Without a means of communicating academic research to the people who are affected by it, this will continue to be a barrier to understand new regulations.

When changing hunting policy, decision-makers consult and consider the opinions of hunting groups, biologists, lobby groups, and the general public. The consultation process includes giving all relevant stakeholders opportunities to bring forward and discuss objectives. Multiple participants highlight that one problem with this approach is that stakeholders on all sides often present only the research that supports their claims, without necessarily including information from perspectives beyond their own. Jeremy thinks that governments consider the opinion of the public equally with that of trained biologists or experienced hunters. He also suggests that there is a very effective lobbyist communication that may outweigh research, or the evidence that emerges from it, with regard to regulation and public support:

> [It] has nothing to do with the science piece ... they tried to cast doubt on the science regularly ... but even the Auditor General's Report that came back and said that science confirms that the B.C. grizzly bear population is sustainable and environmental issues are more of a factor than hunting in its sustainability… but anti-hunting groups, like Rain Coast [Raincoast Conservation Foundation], have the communication piece figured out… but it is heavy on the communication quite often…and light on the science (Jesse, personal communication, January 24, 2018).

Participants indicate that they think regulation is highly influenced by social perception and that some mainstream media are biased against hunters. However, it is critical to highlight that anti-hunting groups are not the only ones lobbying various levels of government. There is a long history of hunting organizations in Western Canada, for example, Rod and Gun Clubs, who have effectively controlled the direction of hunting legislation to ensure access to public lands and wildlife resources (Binnema & Niemi, 2006). In B.C., organizations such as the BCWF and Outfitter Associations are a component of powerful hunting lobby groups who are well-organized and have influenced policies in B.C. for decades (Boulé & Mason, 2019). While many of the hunters have concern over the research utilized in decision-making, it is important to note that not all hunters are better positioned to assess wildlife or the health of ecosystems than many groups that are characterized as anti-hunting. Moreover, both groups utilize research that supports their argument, which demonstrates how lobbyists can inform the discourses of research that shape, and are shaped by, conservation policies.

Participants recognize that hunting stakeholders should work together and effectively communicate their shared goals for wildlife conservation. This is especially important because there are specialized hunting groups that concentrate primarily on their own needs rather than a singular hunting community that effectively communicates as a group. Aaron agrees that there is a need for all hunters to work together for effective wildlife conservation:

> When it comes down to it, we are all trying to do the same thing … and I just wish all the hunters could be on the same page because we're conserving but still hunting …. It would be good to have all these groups sit down and meet … and probably even involve conservation officers and government agencies that want to help conserve these animals… so that we can all be on the same page …. Instead of having groups fighting about this and that … I think if, even from First Nations to non-Native…if we are all on the same page it will work way better (Aaron, personal communication, January 23, 2018).

Rochelle (personal communication, October, 26, 2017) thinks more opinions and voices need to be heard, highlighting the need to work together and the desire for a greater inclusion of hunters in regulation-making. It is critical for stakeholders to engage with Indigenous communities to produce effective wildlife management and conservation strategies (Clark & Slocombe, 2009). This is particularly important in rural B.C., where much of the province is situated on unceded Indigenous territories.

Based on his observations, Jesse points out that the general public is not necessarily anti-hunting, but that media representations of hunting can be an issue:

> Hunting still enjoys wide-spread public support in the province, but what hunters I think don't get … is that you are not trying to convince anti-hunters or hunters that what you are doing is good … you are trying to convince the public and politicians…so I think in terms of the media and hunters…. hunters haven't understood how media works and so that affects their relationship with media … and media likes to sell controversy … quite often they like to see what's interesting to the public as opposed to what's in the public interest (Jesse, personal communication, January 24, 2018).

Many of the participants discuss that they think the media depicts hunting in an unrealistic way. Hunters have to better communicate what they actually do and improve their messaging. In a time when social media dominates communication for many demographics, it is imperative that hunters are aware of what they are posting. Particularly, some participants suggest that hunters should move away from sharing graphic images of harvested animals, and focus more on sharing their hunting experiences and time spent on the land. Participants emphasize the need for hunters to reconsider and change their messaging as a way to gain wide-spread support.

Some participants point to the idea that of all the threats to wildlife populations, hunting is obviously not the biggest concern. A CO who was interviewed suggests:

> Well certainly… habitat protection is a pretty key part of wildlife management and without habitat of course there is no wildlife … so money in that direction and enforcement of the various rules that protect habitat

> …and of course we can always use more personnel in the field… (Colin, personal communication, September 21, 2017).

The effects of other industries, such as forestry, mining, and tourism on wildlife populations and habitat are also a concern for the interviewees. As Paul states:

> [Hunting] is not a threat … yeah with regulated harvest like we have, I would say there is no threat to conservation … there are a bunch of industries like mining, forestry, tourism … when you look at the mines in our area like Elk Valley and they aren't paying any type of money for conservation for removing entire mountains … it is like…really? … I think it's lobbying for the right cause. Trying to make change in some of the industries that are impacting wildlife negatively (Paul, personal communication, December 12, 2017).

Participants unanimously agree that hunting was not the most pressing threat to wildlife and land use management. Instead, they made statements about the destruction of habitat and lack of support for habitat protection from resource extraction industries. Since the 1960s, there has been an incredible amount of growth in resource extraction sectors throughout the province, including forestry and mining, and multinational companies continue to exploit provincial resources (Jackson & Curry, 2004). As a result, many lobbying groups in B.C., particularly those against resource extraction industries, also exist. While some participants suggest that everyone, including both hunting and anti-hunting groups, should reconsider where conservation efforts should be directed, it is evident that many of these activist groups, including Raincoast, have also been lobbying against unsustainable methods used in big oil, mining and forestry industries throughout the province. Despite hunters' perceptions, and the fact that many of these groups are not in favour of hunting, it is not as simple or as polarizing as environmental activists against hunters. Jesse points out that hunters should connect with some of these diverse groups and contribute to joint conservation efforts, rather than only focusing on hunting itself:

> Hunters have been so focused on hunting regulations in B.C. for the last four years…but not advocated for the things that actually grow wildlife…. The regulated hunting side, it is not what is driving the bus … the evidence and what the ecologists tell us … changing the hunting regulations are not going to fix your problem (Jesse, personal communication, January 24, 2018).

This comment suggests that hunters must consider their own biases and reconsider what is affecting wildlife populations. Some participants contend that hunters should be focusing on research related to conservation, rather than fixating on social issues. When it comes to wildlife conservation, many of the government officials who were interviewed state that funding is the answer to wildlife sustainability:

> I think it all starts with funding … we need to have funding that goes back into the resource, money generated from hunting license sales … and I think the industries that aren't hunting-related but still impact wildlife…I think they need to pay in as well (Paul, personal communication, December 12, 2017).

It was clear to participants that this initiative should come from government, as an increase in funding would allow for independent research to inform decisions. Independent research has the potential to bridge rural-urban divides and curb the animosity surrounding what hunters perceive as a lack of wildlife studies conducted on species population numbers and overall health. Participants also talked about the need for more research on B.C.'s wildlife management to better inform policy-makers of what is needed to support healthy ecosystems at localized levels.

5.0 Conclusion

As entire ecosystems become more affected by human encroachment and higher demands for resources, the role of hunting in wildlife and land use management in rural regions must continue to be examined at local levels. It is essential that land and wildlife managers consider the complexity of relationships between wildlife, humans, and hunters when assessing and formulating land use policies and regulations. Evaluating and defining these relationships will improve understandings of hunting practices, as well as help to support the long-term sustainability of both regional lands and rural economies within the province.

In B.C., as elsewhere in Canada, hunting represents much more than a recreational activity as it is considered by many to be a powerful cultural and socio-economic practice. It allows peoples, Indigenous and non-Indigenous, to connect with land and culture in many ways, and it can foster a desire to preserve hunting as an inter-generational practice (Arnett & Southwick, 2015). In this manner, hunting does support peoples' involvements with rural conservation efforts. In the case of guided, commercialized hunting, it is also part of global entertainment markets (Dunk, 2015) as hunters and hunting organizations contribute billions of dollars to wildlife management and conservation (Heffelfinger, Geist, & Wishart, 2013). Hunting practices can foster thoughtful observation of lands and wildlife systems—producing knowledge that supports critical research that includes the voices of hunting stakeholders in policy management.

In addition to more localized research about the impacts of hunting industries on rural economies, there is a need to closely consider the human dimensions of ecological and conservation practices. There is also a need for research that demonstrates how the human dimensions of conservation and natural resource management can be improved by considering alternative methods to assess and improve stakeholder engagement (Bennett, Roth, Klain, Chan, Christie, Clark, Cullman, Curran, Durbin, Epstein, Greenberg, Nelson, Sandlos, Stedman, Teel, Thomas, Veríssimo, & Wyborn, 2017).

Large-scale studies on the themes discussed in this paper could help better inform the public about hunting and hunting cultures in rural B.C. Hunting is increasingly characterized by multiple communities of practice, and looking at the perspectives of hunters with diverse cultural backgrounds can broaden understandings of current

hunting cultures in western Canada (von Essen, van Heijgen, & Gieser, 2019). The participant base should be expanded in future research to allow for more perspectives to emerge on the range of hunting and conservation practices. Significant gaps still exist, particularly if you consider that very few studies are centred on the perceptions of female hunters (Reis, 2014). Research should also expand sample sizes through focus groups and surveys to gain a broader viewpoint of hunting practices across the province. More research that considers food security in rural and Indigenous contexts could deepen understandings of the significance of hunting to support the overall health and cultural continuities of communities. This requires investing in work that profiles the diverse cultural connections to rural lands that in some cases are maintained through participating in hunting local resources and other land-based harvesting practices.

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