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Gender, Decision Making, and Natural Resource Co-management in Yukon

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ABSTRACT. Across the Canadian North, resource co-management has become a central institution for the management of natural resources. Although many multidisciplinary studies have examined the various social and political dimensions that influence the effectiveness of resource co-management, little has been done to understand how gender might affect collaboration and decision making. This gap is particularly evident in the northern Canadian context, where women make up 16% of all current co-management board members. This study examines the relationship between gender and decision making, drawing on the experiences of those involved in co-management boards in Yukon. Our findings indicate that the representation of women within these institutions is important for establishing a holistic decision-making process and a positive institutional culture that facilitates effective decision making. While there were many different experiences with gender, co-management, and decision making, it was generally agreed that male and female board members had equal opportunities to participate in board decision making. Nonetheless, barriers remain that prevent board members from feeling comfortable acting upon these opportunities. These barriers to participation were experienced by men and women in distinct ways. Institutional level barriers—cases where women's skills and knowledge were considered irrelevant to co-management, where their opinions lacked standing within decision making—will be the most challenging for co-management boards to address in regard to effective decision making.

Key words: gender; co-management; natural resource management; Yukon; decision making

RÉSUMÉ. À l'échelle du Nord canadien, la cogestion des ressources est dorénavant une institution centrale pour assurer la gestion des ressources naturelles. De nombreuses études disciplinaires se sont penchées sur les dimensions sociopolitiques qui influent sur la cogestion des ressources. Cependant, peu d'études ont été réalisées pour comprendre en quoi le sexe de la personne exerce une influence sur la collaboration et la prise de décisions. Cet écart est particulièrement évident dans le contexte du Nord canadien, où les femmes représentent 16 % de tous les membres de conseils d'administration actuels en cogestion. Cette étude examine le lien qui existe entre le sexe de la personne et la prise de décisions. Elle s'appuie sur l'expérience de personnes qui font partie de conseils de cogestion au Yukon. Nos constatations laissent croire que la représentation des femmes au sein de ces institutions revêt de l'importance dans la création d'un processus de prise de décisions holistiques et d'une culture institutionnelle positive favorisant la prise de décisions efficaces. Bien que l'expérience différait selon le sexe des personnes, la cogestion et la prise de décisions, on a généralement constaté que les membres de conseils de sexe masculin ou de sexe féminin avaient la possibilité de participer de manière égale à la prise de décisions des conseils. Néanmoins, il reste des obstacles qui empêchent les membres de conseils de se sentir à l'aise lorsque vient le temps de saisir ces possibilités. Ces obstacles à la participation étaient vus de manières distinctes par les hommes et par les femmes. Les obstacles de niveau institutionnel — lorsque les compétences et les connaissances des femmes étaient considérées comme non pertinentes en matière de cogestion et lorsque leurs opinions manquaient de poids dans le cadre de la prise de décisions — seront les obstacles les plus difficiles à surmonter pour les conseils de cogestion en vue de la prise de décisions efficaces.

Mots clés : sexe; cogestion; gestion des ressources naturelles; Yukon; prise de décisions

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INTRODUCTION

The implementation of natural resource co-management in Canada has brought together resource users, various levels of government, and Aboriginal authorities to share responsibility for how natural resources can best be managed. In the Canadian North, many existing co-management institutions emerged from the settlement of comprehensive land-claim agreements that have provided Aboriginal peoples with a decisive role in the management of their traditional territories. The impetus for establishing resource co-management institutions was based, in part, on efforts

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to empower those who had historically been excluded from formal decision-making processes, in particular local resource users and Aboriginal communities (Notzke, 1995). It was also based on an understanding that Aboriginal rights to hunt, fish, and trap must be enforceable, and co-management institutions offer one mechanism through which this can take place (Staples, 1997). In Yukon, 17 co-management boards, councils, and committees now hold a range of responsibilities for the management of fish, wildlife, lands, water, and renewable resources.

The literature pertaining to the conditions that either facilitate or impede co-operation and effective decision making within co-management boards in Yukon has been growing since the mid 1980s. For example, ethnic and political equality within northern land claims boards—measured by the representation and influence of Aboriginal board members, the independence and power of these institutions, and the willingness and capacity to incorporate traditional knowledge into a board's operations—have been tied to more equitable processes for decision making (White, 2008). Natcher et al. (2005) found that the cultural diversity of board members, and their shared colonial history, can limit the institutional effectiveness of co-management boards in the territory. Nadasdy (2003a) has also shown how the political context in which co-management boards function serves as a formidable barrier to building trust between First Nations and territorial government representatives and, ultimately, to the integration of traditional ecological knowledge in management and decision making. Yet one area of co-management that has eluded analytical attention is that of gender and the role it plays in affecting decision making. Although research conducted by Natcher (2013) found that the majority (82/100) of co-management board members in Yukon are male, determining the nominal representation of men and women without exploring its connection to effective participation and decision-making processes leaves critical questions unanswered. Focusing on wildlife co-management boards in Yukon, this paper answers some of these key questions by examining the role that the gender composition of co-management boards plays in decision-making processes, the past and current participatory experiences of women on co-management boards, and the factors and gender-based differences that facilitate or impede effective participation within co-management boards. In exploring these themes, we address an important yet unexplored dimension of resource co-management in northern Canada.

BACKGROUND

Resource co-management has been interpreted and defined in many different ways. Generally, however, co-management has been defined as "a spectrum of institutional arrangements in which management responsibilities are shared between the users (who may or may not be community-based) and government" (Yandle, 2003:180). In Yukon, the creation of formal co-management bodies began with the signing of the Inuvialuit Final Agreement in 1984. This agreement established several wildlife management boards within the Inuvialuit Settlement Region, the western portion of which extends into northern Yukon (Joint Secretariat - Inuvialuit Settlement Region, 2009). Soon after (1985), the Porcupine Caribou Management Board (PCMB) was established pursuant to the Inuvialuit Final Agreement, bringing together Aboriginal, territorial, federal, state, and United States federal authorities into a cross-jurisdictional co-management agreement (PCMB, 2014). In the 1990s, co-management in Yukon was expanded with the signing of the Umbrella Final Agreement (UFA), which laid the groundwork for negotiating individual First Nation final agreements. Creating new and innovative management structures for the management of fish, wildlife, and other resources was an important issue in the land-claim process (Hayes, 2000). In contrast to previous resource management practices carried out by the territorial government, a central aspect of the UFA was to create a resource management system that reflected First Nations values (B. Smith, pers. comm. in Hayes, 2000). Chapters 16 and 17 of the UFA established several wildlife and resource management boards within the territory, including the Yukon Fish and Wildlife Management Board (YFWMB), the Salmon Sub-Committee, and 10 Renewable Resource Councils (RRCs). While the YFWMB and Salmon Sub-Committee operate across Yukon, and the PCMB across Yukon and Northwest Territories (NWT), RRCs function within specific Yukon First Nation Traditional Territories where individual land claims agreements have been signed (YFWMB, 2013). With the exception of the Kwanlin Dün First Nation and the three Yukon First Nations that have yet to sign final agreements (Liard First Nation, Ross River Dena Council, and White River First Nation), each Yukon First Nation is represented by an RRC.

It is important to note that the co-management boards and councils within Yukon and across the Canadian North are diverse in function, jurisdiction, and role. They also vary in level of power or influence. While many co-management boards lack final decision-making power, their advisory role can nonetheless be a potent political tool (White, 2008). Co-management boards in Yukon have evolved within a specific social, cultural, and political context that is distinct from those of the NWT and Nunavut. While the different regions and their experiences with co-management can be compared (e.g., White, 2008), they should not all be painted with the same brush. For example, the North Slope Wildlife Management Advisory Council created under the Inuvialuit Final Agreement has a larger budget, jurisdiction, mandate, and, therefore, level of influence than would a renewable resource council. White (2008) offers a useful overview of four broad categories of land-claim boards in the three Canadian territories, including those responsible for wildlife management (e.g., Yukon Fish and Wildlife Management Board), land use planning (e.g., Yukon Land Use Planning Council), licensing related

to the environment (e.g., Yukon Water Board), and dispute resolution (e.g., Yukon Dispute Resolution Board).

GENDER AND NATURAL RESOURCE MANAGEMENT

The implementation of co-management in Yukon has received both praise and criticism. Some have pointed to its successes in promoting local participation in decision making (e.g., Yukon North Slope Wildlife Management Advisory Council, 2012) and overall improvement in the quality of management decisions (Hayes, 2000). Others have argued that co-management institutions have failed to overcome colonial histories (Natcher et al., 2005) and too often fail to incorporate Indigenous traditional ecological knowledge into decision making (Nadasdy, 2003a, b). These critiques offer some insight into the various political and socio-cultural factors that influence co-management, yet the current literature on northern co-management has yet to analyze these institutions from a gendered perspective, with only a few exceptions. In the context of resource management in northern Canada, what little work has been done on gender has typically focused on the lack of female representation within specific resource management institutions, such as fisheries boards (Sloan et al., 2004), hunters and trappers organizations (Kafarowski, 2005), and, most recently, co-management boards, councils, and committees (White, 2008; Natcher, 2013). Although northern co-management is diverse in its own right and has evolved within a specific historical context, it is nonetheless possible to look at research done elsewhere to understand the critical linkages between gender and natural resource management.

In the context of natural resource management, gender interacts with other social dimensions within a community, such as class and ethnicity, to shape the knowledge, perspectives, and concerns expressed within management institutions (Reed and Davidson, 2011). The perspectives of those involved in resource management are in part grounded in the different roles and responsibilities that men and women have in relation to natural resources (Varghese and Reed, 2012). However, as Agarwal (2001) demonstrates, even when resource management processes are participatory they can also be exclusionary, resulting in the further marginalization of women in decision-making institutions. In her case study of community-based forestry groups in India and Nepal, Agarwal (2001) found that women's participation was determined (and more often than not, limited) by factors including membership criteria, social norms, social perceptions of women, entrenched claims and control over community structures by men, and personal and household endowments and attributes.

At the same time, the intersection of these social dimensions can also affect the daily operations of resource management institutions, in areas such as expectations around membership and styles of participation (Reed and Davidson, 2011). In the context of the Canadian forestry sector, for example, Reed and Davidson (2011) demonstrate the ways in which class and gender influence the types of knowledge that is considered acceptable within participatory meetings and institutions. Moreover, the gender composition of a resource management institution can influence the efficacy of the institution as a whole. While the relationship between different aspects of diversity and institutional efficacy is not necessarily linear (Das and DiRienzo, 2010), Westermann et al. (2005) found a positive association between the representation of women on resource management groups in Latin America, Africa, and Asia and improved collaboration, solidarity, and conflict resolution.

Thus, research has demonstrated the significance of gender to natural resource management in a number of ways. However, these findings have largely been derived from research conducted in "developing" regions, where gender and natural resource management have received considerably more attention than in "developed" countries, such as Canada (Reed et al., 2014). This oversight has been attributed in part to gender too often being a "blind spot," or taken for granted as part of everyday norms and attitudes (Arora-Jonsson, 2008; Varghese and Reed, 2012). Such presumptions, and the consequent oversight in analytical attention, are significant because they can lead to the belief that resource management in Canada is gender-neutral and thus impervious to the ways in which gender influences decision-making processes and management outcomes.

METHODS

Yukon is one of Canada's three northern territories, bordered by the Northwest Territories to the east, Alaska to the west and southwest, and British Columbia to the south. It is home to more than 36 000 people, the majority of whom live in the capital city of Whitehorse (Yukon Bureau of Statistics, 2013). There are 14 First Nations in the Territory, 11 of which are self-governing. First Nation citizens make up approximately one-quarter of the total population, though this proportion is greater in most of the small communities (Statistics Canada, 2011).

In light of the broad definitions of natural resource co-management, this article focuses primarily on the Yukon wildlife co-management boards that were established under the UFA. These include the North Yukon RRC (Vuntut Gwitchin First Nation Traditional Territory), Mayo RRC (First Nation of Na-cho Nyak Dun Traditional Territory), Laberge RRC (Kwanlin Dün First Nation and Ta'an Kwach'an First Nation Traditional Territories), Dan Keyi RRC (Kluane First Nation and White River First Nation Traditional Territories), Alsek RRC (Champagne Aishihik First Nation Traditional Territory), Salmon Sub-Committee (Yukon and Alaska), and YFWMB (Yukon-wide). Although the PCMB (Yukon, NWT, and Alaska) was not created under the UFA, it was also included in this study to capture experiences of co-management at a cross-territorial level.

Data collection took place between May and September of 2013. Semi-structured interviews were the primary method of information gathering. The interview guide was piloted with three current co-management board and staff members, one male and two females. Twenty-nine interviews were conducted, 24 in person and five via telephone. When necessary, follow-up questions were sent by e-mail. Interviewees included both past (9) and present (20) board (20) and staff members (8), though one participant had experience in both roles. More women were interviewed than men, and slightly more non-First Nations individuals were represented than First Nations individuals (Table 1). While each of the age categories was represented, the majority of those involved were in the 40–49 and 60+ age categories.

Interview participants indicated the various boards on which they had served. These co-management boards varied significantly in the current proportions of men and women members, ranging from one board composed entirely of men to one composed almost entirely of women (Table 2). A number of interviewees had served on more than one board. Though some had only recently become involved in co-management, others had been active since the early 1990s. On average, participants had spent 6.3 years involved with one or more co-management boards. While the sample of participants may be considered small, it reflects the limited number of women who have served on co-management boards in Yukon. This sample also captures a diversity of experiences gained during a cumulative 112 person-years of service on co-management boards. Once compiled, data were analyzed using NVivo 10. This method allowed responses to be sorted and coded according to broad themes, and then re-coded as new themes emerged.

RESULTS

The findings of this research relate to two broad themes. The first addresses the relationship between women's representation and board decision making, while the second relates to experiences with board decision making. When participants were asked whether or not the level of female representation on a board influenced decision making in general, including both process and outcome, the responses were divided. While 45% (13) of interviewees thought it did influence decision making, 34% (10) thought it did not. Both men and women followed this pattern; thus, gender was not associated with a participant's responding one way or another. Most of the age categories also followed this pattern of response, with the exception of the 60+ group, which comprised twice as many women (8) as men (4). This group disproportionately thought that female representation had no connection to decision making. Similarly, female board members within a female-dominated board unanimously thought there was no connection between these factors. At the same time, however, individuals who were either previous or current staff members all answered this question affirmatively or were unsure. Co-management staff positions are typically female-dominated (Natcher, 2013). At the time of this study, there were three male staff members on 13 Yukon co-management boards. Although staff members do not necessarily play a direct role in making board decisions, they are an important part of the supporting process. As such, they have unique insight into how decisions are made.

Despite this split in opinion, a major theme in discussing women's representation with participants was that having women on a co-management board was important because they positively influenced the process of decision making. Responses indicated the perception that women were more likely to consider a more holistic approach to decision making. These participants found that women were more likely to consider different perspectives and ask difficult questions, contributing to a more complex discussion. As one male board member said, "when we have female participation on the board we're…less likely to come to a quick decision… we're more likely to bash around other ideas and come to perhaps a bit more of a compromise" (current board member, personal interview, 24 June 2013). Though participants acknowledged that a more holistic process was often time-consuming, it also established a longer-term view of management issues. Furthermore, having women on co-management boards was connected to characteristics of a more positive institutional environment in which decision making could occur. These characteristics included less conflict, more civil and respectful discussions, and improved mediation and communication. It was also pointed out that women were more likely to maintain personal relationships and contribute to a more cohesive board as a whole.

Experiences with participation in decision making on co-management boards were extremely diverse. Co-management boards typically take a consensus-based approach to decision making, which the majority of participants found to be an effective way to meaningfully engage board members. Of the 21 male and female interviewees who were either previous or current board members, only one said she had not always had the same opportunities as other board members to contribute to decision making. She explained that when she first joined the board, she felt that she did not have these opportunities, but that this had changed over time.

Though participants agreed that board members had equal opportunities to contribute to decision making, they were not always comfortable acting on these opportunities. The reasoning behind this typically fell into the four categories of barriers, which in some ways overlap. Logistical barriers were discussed most frequently, but participants also pointed to cultural barriers, the perceptions of skills and knowledge required for the position, and attitudes or personalities of other board members. These barriers were both experienced and observed by interviewees. Seven participants (24%) thought there were no barriers to their own participation.

TABLE 1. Interview participant demographics.

		No (%) of participants	Male (28%)	Female (72%)
Age	20–29	1 (3%)	1	0
	30–39	6 (21%)	1	5
	40–49	10 (34%)	3	7
	50–59	4 (14%)	1	3
	60+	8 (28%)	2	6
First Nations/Non-First Nation	First Nations	12 (41%)	1	11
	Non-First Nations	17 (59%)	7	10

TABLE 2. Current gender representation of boards included in project.[1]

Board name	No. (%) of women	No. (%) of men	No. of interviewees from each board
YFWMB	2 (18%)	9 (82%)	7
PCMB	2 (22%)	7 (78%)	4
Salmon Sub-Committee	3 (30%)	7 (70%)	3
Alsek RRC	2 (33%)	4 (67%)	5
Dan Keyi RRC	2 (33%)	4 (67%)	3
Laberge RRC	5 (83%)	1 (17%)	4
Mayo RRC	0 (0%)	5 (100%)	1
North Yukon RRC	1 (14%)	6 (86%)	4

[1] These numbers capture only the current nominal representation of men and women on co-management boards; it is likely that in some cases, this number would not be accurate for the past board and staff members who were interviewed. Because two interviewees had served on more than one board, the total count here is 31, rather than the 29 individuals interviewed.

Considering demographic information within these categories provided a number of insights. The 30–39 and 40–49 age categories were most likely to find logistical considerations, such as having enough time to attend meetings, as a barrier. This was not surprising, given that these age ranges are most likely to have younger families and prioritize careers. By contrast, the 60+ category was most likely to perceive cultural barriers or find no barriers to their participation. Unlike age, gender was not a demographic variable that influenced which category of response participants were most likely to give. However, these categories did present gender-specific dimensions; as such, men and women did not necessarily experience barriers to participation in the same way.

Logistical Barriers

The most commonly cited barrier can broadly be defined as logistics. As many of the board members involved in co-management also have full-time jobs, the time commitment required for the position can be challenging. Scheduling time and locations for meetings to fit different schedules can also be difficult. For women in particular, the responsibilities within the family for child care added to the challenge of balancing these commitments. Several female board members recognized that they would not have been capable of holding their position if it had not been for the support offered by their families in helping with child care. As one staff member described, "I know we had one board member that had three kids and she also had a career and she was really, really challenged for time. I've never met anybody so busy in my life because she basically had three jobs" (current staff member, personal interview, 10 June 2014). At the same time, there was a general sense that while male board members do face logistical barriers, their time constraints were more likely to be associated with careers.

Cultural Barriers

The term "cultural barriers" typically referred to the perceived hesitation on the part of First Nations board members to contribute to discussions in a boardroom setting. However, this response was almost entirely observed by non-First Nations individuals, rather than reported by First Nations board members themselves. The respondents who made these observations often connected this hesitation to the historically based difference in power between First Nations and non-First Nations peoples. In the two instances when cultural barriers were reported by First Nations board members, these barriers had both an age and a gender component. As one female First Nations board member explained: "I know I have a hard time with that, you know to speak out assertively when there's…elders in the room…you know how we grew up as having men as…the main decision makers" (previous board member, telephone interview, 19 August 2013). This is not to imply that First Nations culture inherently presents barriers to women; rather, that there are cultural norms (Natcher et al., 2007) and traditions (Stevenson, 1997) that can influence participation within certain settings. This example also highlights differences in formal versus informal influence. One First Nations board member described her own

family:

> Back then, when our relationship to men was different, eh? We had to be respectful because they were the decision makers and all…but at home, we got to see how my mum had a lot of influence in the decisions when my dad went to make decisions, [he] was one of the key decision makers so…it was discussed around the table before [the decision was made]...So he didn't go there with his own ideas, he went there a lot with my own mum's [perspectives] and our perspectives were in there.
>
> (current board member, telephone interview, 21 August 2013)

Skills and Knowledge

Another set of factors that influenced the experiences of board members was the perceptions of skills and knowledge required to participate effectively on the board. Co-management boards deal with natural resource issues that require drawing on scientific, policy, and land-based information, and bringing these worlds together can be a challenge for both individual board members and the board as a whole. Both men and women particularly highlighted understanding government procedures and bureaucracies as a barrier on a number of boards, especially with the RRCs. However, the perception that women lack certain types of land-based knowledge was seen as a gender-specific barrier, especially on boards that tended to focus on male-dominated activities on the land. In fact, 32% of all participants identified a lack of women's experience in wildlife harvesting as a limiting factor to female board membership. As one female board member described, "I think women see their barrier more as…what do I know about wildlife and the outdoors and stuff" (current board member, personal interview, 25 June 2013). While both men and women held this perspective, it was most frequently cited by male board members.

In contrast, female board and staff members were more likely to attribute the lack of women on co-management boards to issues with the process of nominating or appointing board members and the over-representation of men within that process. This point brings about an important discussion of institutional barriers to women's participation in co-management. In particular, it raises questions about whether those appointing or nominating board members perceive women as lacking certain skills and knowledge required for participating on co-management boards. While such questions were outside the scope of this study, it is nonetheless a relevant avenue of analysis that frames the discussion of women's participation.

Attitudes and Personalities

The attitudes and personalities of individual board members were also identified as barriers to participation in decision making for some women. In general, participants noted that more assertive or dominant individuals would at times take over the discussion, so that quieter board members had a hard time participating. This was an issue particularly when more aggressive personalities were in the position of chair. Similar obstacles to collaboration within co-management have been noted by Natcher et al., (2005), who found that non-First Nation board representatives typically demonstrated individualistic tendencies that contrasted with the collectivist behavior of First Nation members, who emphasized social equity and an avoidance of public displays of conflict.

Both male and female participants noted that the attitudes of certain boards or individual board members had at times been expressed along gendered lines. As one staff member described, "I've seen instances where if a woman is making a presentation around the board, that the guys will talk to each other. But if the guy does the presentation and these guys do that, then they'll look at them…and they'll stop" (current staff member, personal interview, 10 June 2013). A female board member explained how these attitudes affected her participation within a male-dominated board: "I'm pretty independent and I can be pretty assertive, but …you kind of [have to] repeat yourself and you keep saying…your input over and over before it's heard" (previous board member, telephone interview, 19 August 2013). Again, these attitudes were particularly problematic when they came from the chair, typically a male-dominated position on co-management boards (Natcher, 2013). Several female board members described not being taken seriously or being ignored by the (male) chair of the board they were involved with, in part because of their gender, though other factors such as a young age and First Nations identity were also cited as playing a role.

While many of the board members that were interviewed discussed observing and experiencing barriers to their participation in board decision making, these challenges were experienced differently by men and women. Despite acknowledging that board members had equal opportunities to participate in decision making, five of the 21 female interviewees (24%) noted that their contributions to discussions have not always been valued. These women commonly referred to the need to prove themselves to their predominantly male colleagues. As one woman explained, "women…they really step it up or they really have to prove, it's almost like you're having to prove [yourself] you know and work harder and get acceptance…. always work harder, always" (previous board member, personal interview, 20 August 2013). Four out of five of these women were also First Nations, which each felt was an additional factor in having to demonstrate that they "deserved" to be there. One female participant described how age and gender intersected in this regard: "You have to act like a man. You have to talk like a man in a lot of ways, you know, especially being a young woman. I found that [I asked myself] how do I negotiate or navigate in this environment because I'm surrounded by 50-year-old men?" (current board member, personal interview, 14 August 2013). Women were able to

prove themselves in different ways: by working harder, establishing a positive reputation, or building relationships with other board members. One woman explained that it was not until she had butchered a moose in front of the other (male) board members, thereby proving that she had experience on the land, that she felt she had gained their respect. By contrast, she found it was simply assumed that the men on her board already had credibility based on these experiences. For these women, having to prove themselves was a barrier in and of itself.

An important part of this discussion was the significance of experience on the land to board discussions and board member participation. Having experience on the land was important for male and female, First Nation and non-First Nation participants alike. While it was acknowledged that having a diversity of experiences was important to the board, those with knowledge of the land not only gained the respect of other board members, but also provided an important source of first-hand information for what was happening on the land. As one male participant noted, "I think just being outside, being out there on the land, which I try to do as much as I can….I mean I do that because I enjoy it. But in the same token, when you do that, it also builds some credibility for you" (current staff member, personal interview, 10 June 2013).

Activities on the land have typically been characterized by a gendered division of labour, and in many ways this division of labour still exists. Traditionally, First Nations men in Yukon were responsible for the hunting and harvesting of wildlife, while women processed meat and used hides to make clothing and supplies (Whitehorse Aboriginal Women's Circle, 2010). These roles were both complementary and flexible. Participants reported that these gendered roles still exist, both within and outside of First Nations culture, but are not static. Indeed, four (19%) of the women that were interviewed identified themselves as hunters.

The activities that men and women took part in on the land played an important role in shaping the perspectives and knowledge that they brought to the board. For example, one female board member described her own experiences of working in a fish camp:

> When you look at like a traditional fish camp perspective, the majority of the work, anyways in my culture, is done by the woman. And so you know we're the ones cutting the fish, seeing the fish, doing all the work with them, hanging them, drying them, preparing them. Normally the men are catching the fish but it's that type of involvement….me bringing that perspective of what it's like to have run a fish camp…I think I bring a very different, and I think I bring more of an emotional…perspective to the table.
> (current board member, personal interview, 4 July 2013)

While this example highlighted the roles of women on the land alongside men as the primary harvesters, female-dominated activities on the land outside of fish and wildlife harvesting also play an important role in the knowledge that they contribute to the co-management discussion. As one female participant told us, "Women, you know, a lot of them are harvesters of a different nature, you know, the berry patches, and the roots and the medicinal plants, so the nature of what brings them onto the land brings them to different places than the men" (current staff member, personal interview, 15 August 2013). While these activities may not directly involve fish and wildlife, they do provide unique knowledge of the ecosystem that humans share with wildlife.

The knowledge and activities related to women's roles on the land were engaged to varying degrees by different co-management boards. On several boards, women reflected that their experiences on the land outside of wildlife harvesting were valued in the same way as the experiences of those who hunt, trap, and fish. Women who identified themselves as active hunters expressed similar views, though they were less likely to perceive gender as being relevant to co-management. These women unanimously thought that gender had no influence on their experiences or on the board as a whole. On other boards, however, both men and women stated that because fish and wildlife were the focus of their board, male-dominated activities of hunting, trapping, and fishing were more relevant to their objectives than female-dominated activities such as berry picking. The focus on fish and wildlife harvesting experiences was echoed by members on a number of boards. It was also pointed out that activities like berry picking are rarely subject to regulatory consideration and therefore were considered less important to the co-management discussion.

As one First Nations woman reported, "The women would talk about the medicines and the berries. And the men look at them like, 'What? Berries?'" (current board member, personal interview, 21 August 2013). Elsewhere, women felt that even when the board discussed female-dominated activities on the land, they were still secondary to male-dominated activities: "Activities that women undertake like 'gathering' type activities are considered very occasionally, but not like 'hunting/fishing/trapping' activities. Gathering is a fascinating consideration in the grand scheme because it is traditional, important, …[and] activities such as exploration, mining, roads, and even tourism can have significant effects on it" (current staff member, e-mail, 21 October 2013). Consequently, the engagement with different land-based activities was, for some female board members, an influential part of their experience on co-management boards.

DISCUSSION

As previously discussed, limited research has been done on the relationship between gender and natural resource management in Yukon. The results presented here offer insight into how this relationship plays out within wildlife

co-management institutions in the territory, focusing specifically on board decision making and the experiences of board members. It is important to note that a key finding of this work is that there is no one shared experience with co-management in Yukon. Rather, there are diverse experiences that vary between individuals and boards, experiences which in some ways overlap and in others diverge. Exploring these experiences and their diversity reflects the complexity of the socio-cultural and political context in which co-management exists.

Participants often noted that women's participation facilitated a more holistic decision-making process and a more positive and collaborative working environment. This association is consistent with research from Latin America, Africa, and Asia that has similarly attributed to the presence of women a heightened commitment to consensual problem-solving, conflict resolution, and social reciprocity, conditions that are critical to sustainable natural resource management (Westermann et al., 2005). Given that co-management boards in Yukon are tasked with representing a range of community interests, which at times can conflict, the characteristics noted above are key to building more effective and inclusive institutions for environmental management. These characteristics not only are markers of an effective process, but also result in sound environmental decision making (Senecah, 2004).

The attribution of these characteristics to female board members reflects one way in which socially and culturally determined gender roles influence resource management institutions. For example, a number of participants reflected that outcomes of women's representation, like improved collaboration, were associated with a woman's role as the mother and mediator within the family unit. The skills required by this role, such as effective communication and conflict resolution, come to be considered typically "feminine" characteristics. This view was exemplified by one male participant, who explicitly identified his own style of decision making, which was less "combative," as more feminine than masculine. The influence of gender roles within these boards was apparent in a number of other ways. For example, the perception that women bring a connection to the grassroots community was, for a number of participants, related to the socially embedded role of women as mothers and nurturers, not just of their families, but also of the community.

At the same time, male board members were also influenced by the socially constructed characteristics associated with their gender, particularly their role as the primary harvesters within a community. Associated with this role is the expectation that men would prefer to spend time in the bush and are better suited to being board members, rather than staff. In contrast, staff positions are often associated with stereotypically "feminine" work, such as administrative duties. These archetypes in turn facilitated an image of co-management boards as "old boys' clubs" made up of predominantly male hunters and trappers. However, gender roles are not entrenched; several men filled staff positions on co-management boards and a number of women were active hunters, though both groups were in the minority.

Understanding the experiences of those involved in decision making on co-management boards is a necessary step in gauging the effective participation of board and staff members. Senecah's "trinity of voice" framework provides a useful tool for this purpose, and using gender as an analytical lens within this framework adds further insight. Senecah (2004) argued that effective decision making requires that stakeholders have access, standing, and influence within this process. Access ensures that participants have the opportunity to be heard. For example, the consensus-based approach taken by co-management boards within this project was for most participants an effective way to gain access. Standing requires that the contributions made by stakeholders be valued and respected. This was demonstrated by one participant, who was able to gain standing by demonstrating her experience and skills with wildlife harvesting. Senecah defined influence as the type of meaningful participation that provides opportunities to affect outcomes. One example of how this was achieved was cited by a female board member who found that if she repeated her point often enough, it would eventually be considered important or relevant to the decision being made. These last two examples offer insight into how women were able to create situations in which their participation could be more effective, even where such conditions did not originally exist.

Several of the barriers identified by participants, such as logistical barriers and not understanding government procedures, are issues of access, in that they limit the potential for participants to be heard. These issues are relatively easy to address. Barriers that relate to standing, in contrast, present much more of a challenge (Senecah, 2004). Participants who found that the attitudes or personalities of other board members were a barrier to their participation reflected the perception that their voices were not being respected or considered in discussions. In other words, they lacked standing. This is particularly apparent in the responses of women who felt they had to prove themselves, the majority of whom identified as First Nations. While these women acknowledged that they had access to decision making, in that the opportunities for being heard existed, they lacked the assurance that their contributions would be valued. It was only after board members had successfully proven themselves that they gained standing, as well as influence, whereby their participation could affect outcomes. These experiences make it clear that ensuring an effective decision-making process on co-management boards requires looking beyond whether or not opportunities to participate exist. Rather, it necessitates understanding how different voices are valued within decision making, what factors shape the value these voices are given, and what these dynamics mean for the stakeholders involved.

In this context, one such factor was experience on the land. At times, certain experiences on the land were considered more relevant to a board's discussions and decisions

than others, and gender played a key role in the valuing of these different experiences. The concept of gendered roles on the land has been discussed in a number of northern contexts, though little has been done in Yukon to understand the influence these roles have within natural resource management institutions. As the participants in this project demonstrated, the gendered division of labour in activities on the land, though flexible, is still very much a part of how First Nations and non-First Nations peoples interact with their environments in Yukon. Moreover, because experience on the land was an important part of being a board member for many participants, these roles were apparent in the types of knowledge men and women brought to the table or were perceived as bringing to the table. The ways in which co-management boards engaged this knowledge in turn influenced the scope of their decision making in relation to their mandate.

In theory, the decisions made by co-management institutions are intended to reflect their mandate. Although the mandates of co-management boards responsible for fish and wildlife in Yukon are diverse, there are a number of common linkages. In general, these boards are tasked with managing not only fish and wildlife populations, but also their habitat, while at the same time providing a voice for the community within this process and protecting the interests and values of those people who depend on natural resources. For example, although the purpose of the PCMB is to manage a specific wildlife population (the Porcupine caribou herd), it also sets out to manage its habitat, which expands the scope of its mandate significantly. Similarly, the Salmon Sub-Committee outlines its mission to "provide a fair process for consultation that incorporates *all levels of society* in arriving at their decisions" (emphasis added) (Yukon Salmon Sub-Committee, 2014). At the community level, the RRCs are not only tasked with being the voice of local community members in the management of fish, wildlife, and forestry resources, but also involved with regional land-use planning processes (YFWMB, 2013). Under the UFA, the YFWMB aims "to preserve and enhance the culture, identity and values of Yukon Indian People" (Government of Canada, 2011:153). Thus, the broad mandates provided by co-management boards in Yukon incorporate environmental, social, and cultural factors that reflect the complexity of the management issues these boards confront. Wildlife harvesting is only one piece of this mandate, though undoubtedly a significant piece. However, focusing solely on harvesting activities such as hunting and trapping can lead to the exclusion of other potentially valuable sources of information that are relevant to other aspects of a board's mandate. Moreover, because hunting and trapping are typically male-dominated activities, this focus can mean women's knowledge of the land is seen as less relevant to co-management discourse.

Women's knowledge of natural resources, whether it is gained from running a fish camp or from taking kids out on the land, provides a broader perspective of habitat, the changes it is undergoing, and the ecosystem as a whole, all of which are relevant to the broad mandate of co-management boards. The complexity of this knowledge was demonstrated by a study of Tetl'it Gwich'in women's berry-picking activities. For these women, a successful berry pick required knowledge of plant life cycles, abundance and distribution of berries, various ecological factors, and ecosystem dynamics (Parlee et al., 2014). In narrowing the types of perspectives, knowledge, skills, and experiences considered relevant to their discussion, co-management boards run the risk of narrowing the scope of the decisions that they make. This ultimately has implications for the effectiveness of the board as a whole in achieving its mandate. Furthermore, these findings highlight the subtle ways in which participatory processes can result in exclusionary outcomes.

It is important to note that simply adding more women to co-management boards will not address the challenges experienced by female board members. Such an approach only promotes the tokenistic attitude that women's representation is simply a box that can be ticked off a list for achieving diversity. A number of female board members who were interviewed explicitly stated that they would not want to be appointed to a board simply because of their gender. Moreover, the discourse of focusing on male-dominated activities such as hunting and trapping while ignoring certain female-dominated experiences, as well as the perception that women have to prove themselves to fit into this framework, are not issues that can be addressed by filling a quota. These challenges operate at an institutional level; consequently, any meaningful change that addresses these issues has to be institutional. For example, a number of participants reflected that the government bodies that appoint or nominate board members are typically male-dominated. Female board and staff members in particular saw this as a major barrier to women's involvement in co-management. Considering the way in which the appointment or nomination process is carried out, as well as who is involved, might be a starting place for institutional level change to take place.

CONCLUSION

In 2014, the Canadian Polar Commission released a report on the state of northern knowledge that identified a number of areas where further research is required. In reference to co-management, the report stated: "Further knowledge is needed respecting the dynamics of co-management and other resource governance regimes, including factors that can strengthen or undermine their effectiveness... The regions' resource management and regulatory boards, many born out of Aboriginal land claims, are still in their formative stages. Research is needed to inform the evolving operations of these governance innovations to ensure the developments they regulate proceed with a sufficient degree of 'social license'" (CPC, 2014:11). Our research aimed to address this gap, using gender as an analytical lens, by

exploring the relationship between gender, decision making, and resource co-management in Yukon.

Board and staff members on various co-management boards across Yukon participated in semi-structured interviews for this research. There were two major themes within the findings. First, gender roles and relationships were related to the process of decision making. Specifically, the presence of women on co-management boards was associated with a holistic approach to decision making, as well as a positive institutional culture in which effective decision making could occur. Furthermore, the knowledge, perspectives, and experiences that women brought to the table, based on gendered roles in the community and on the land, are germane to the scope of the decisions that are made, as defined by the boards' mandates. Experience on the land was particularly important to board and staff members, although these experiences were valued by boards in different ways. In some cases, the focus on typically male-dominated activities such as hunting and trapping led to the exclusion of activities outside of this discourse, in particular female-dominated activities on the land such as processing meat and picking berries. In light of their broad mandates to not only manage wildlife populations, but also manage habitat, represent the voice of their communities, and protect First Nations cultures, these boards risk narrowing the types of knowledge and perspectives brought into their decisions.

A second aspect of the findings focused on the experiences of those involved in decision making, in particular female board members, and effective participation. In general, the experiences of women on co-management boards were diverse. Nonetheless, several broad themes emerged. It was generally acknowledged that while opportunities to participate in decision making existed, there were nonetheless barriers to board members' acting on these opportunities. These barriers were at times experienced by men and women in different ways. Such differences were most apparent amongst the women who found they had to prove themselves on male-dominated boards because of their gender, age, or identity. In other words, these female board members lacked standing within the decision-making process and felt their voices were not being valued until they had proven that they "deserved" to be there.

Identifying the experiences of women involved in northern co-management boards is an important first step to take in understanding the connections between gender and resource management in the Canadian North. Nonetheless this should not be the end point of a critical analysis. Even if women are not physically represented within decision-making bodies, it does not imply that their interests or needs are not being represented. Indeed, as Arora-Jonsson (2008) points out, women often play a major role within informal avenues of decision making. While participants involved in this project indicated that these informal networks do exist, further research is required to understand the extent and complexity of these connections.

These findings offer insight into the social and political context of co-management. They affirm the notion that these boards, councils, and committees are not separate from the social structures and power dynamics that shape needs and interests. Moreover, they highlight the importance of understanding how social variables such as gender, ethnicity, and class interact with one another and come to influence the roles and relationships of those involved in co-management institutions. In practice, the results of this work bring to light the importance of paying attention to social differences such as gender, rather than assuming that a community can be represented as a single, homogenous unit. Accounting for these differences is a necessary step in considering the effectiveness of decision-making processes and outcomes on co-management boards.

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