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The Socio-Cultural Interrelations and the Socio-Spatial Dynamics between Dogs and Peoples in Subarctic Communities: The Case of Kawawachikmach, Matimekush-Lac-John and Schefferville.

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Ce mémoire intitulée

The Socio-Cultural Interrelations and the Socio-Spatial Dynamics between Dogs and Peoples in Subarctic Communities: The Case of Kawawachikmach, Matimekush-Lac-John and Schefferville.

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Abstract

The following research focuses on sociocultural relationships and sociospatial dynamics between humans and dogs in the Naskapi Nation of Kawawachikamach and in the Innu Nation of Matimekush-Lac John and the town of Schefferville. These communities face multiple issues related to dogs including the lack of veterinary services, coupled with issues related to canine overpopulation, and the transmission of zoonoses such as rabies from contact between dogs and wildlife. We examined the role of dogs and their keepers in these subarctic communities. We also explored how dogs impact the wellbeing of the population living in said communities and how keepers impact the wellbeing of dogs. Despite being described as a pet rather than a working dog, specific roles are assigned to dogs by research participants, particularly the provision of protection and companionship. However, the findings of the study indicate that keepers also plays an essential role, not only through protection and companionship, but also by tending to their dog(s). The evidence from this study suggests that dogs and their keepers have mutually beneficial relations. These research results suggest that the narrative portrayed through mainstream media outlets disregard the daily roles played by dogs and their Indigenous keepers within the communities of Kawawachikamach and Matimekush-Lac-John.

Key words: First Nation, subarctic, dogs, wellness, social inclusion, participatory research

Résumé

Ce projet de recherche porte sur les relations socioculturelles et la dynamique sociospatiale entre les humains et leurs chiens dans la nation Naskapi de Kawawachikamach, la nation Innu de Matimekush-Lac John et la ville de Schefferville. Ces communautés sont confrontées à de multiples problèmes liés aux chiens, y compris le manque de services vétérinaires, couplé à des problèmes liés à la surpopulation de chien et à la transmission de zoonoses telles que la rage par contact entre les chiens et la faune. Nous avons examiné le rôle des chiens et de leurs gardiens dans ces communautés subarctiques ainsi que l'impact des chiens sur le bien-être de la population vivant dans ces communautés et l'impact des gardiens sur le bien-être de leurs chiens. Bien que le chien soit décrit comme un animal de compagnie plutôt que comme un animal de travail, des rôles spécifiques lui sont attribués par les participants, en particulier le rôle de protecteur et de compagnon. Cependant, les résultats de cette étude indiquent que le gardien du chien joue également des rôles essentiels, non seulement celui de protection et de compagnon, mais aussi celui de « prendre soin » de son (ses) chien (s). Les données de cette étude suggèrent que les relations des chiens et de leurs gardiens sont mutuellement bénéfiques. Ces résultats suggèrent que le récit présenté sur les chiens dans les communautés du nord par les principaux médias ne prend pas en compte les rôles quotidiens joués par les chiens et leurs gardiens autochtones au sein des communautés de Kawawachikamach et Matimekush-Lac-John.

Mots-clés: Première Nation, subarctique, chien, bien-être, inclusion sociale, recherche participative

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IPDW*:* Indigenous Peoples, Dogs, and Wellness

CBPAR: Community Based Participatory Action Research

This thesis is dedicated to the First Nation communities

of Kawawachikamach & Matimekush-Lac-John.

Preface

I am a twenty-seven-year-old cis women born in Tiohtiá: ke (Montréal), unceded territory of the Kanien'kehá: ka Nation and a traditional gathering place for many First Nations. I would like to begin this thesis by locating my relations and myself to the lands on which this research was carried out.

While I live and study in Tiohtiá: ke, my heritage is not from here. My name, Elisa Emily Cohen-Bucher, can be used to trace my family history and heritage. My father was born in France to Jewish Algerian parents and grandparents. I was given his grandmother's first name, Elisa, as she was an important part of his life. I also hold my father's last name, Cohen. My mother was born in British Columbia to a Polish and Swiss father and a Metis mother. From this side of my family, I have my Metis grandmother's name, Emily, as she passed away a few months before my birth. My great-aunts, her sisters, believed the first child born into the family after her death should carry her name. I was also given my settler grandfather's last name, Bucher. My full name represents the diversity of cultures into which I was born. In recent years, my family's ancestral roots have become increasingly important to me at a personal level but also in my studies and in the career path I have chosen.

I graduated from Concordia University with an honour in human environment, specializing in climate change policy and Indigenous knowledge. My bachelor's thesis focused on the "Incorporation of Indigenous Knowledge and Participation in Québec's Climate Change Adaptation Strategies". My research examined the inclusion of Indigenous knowledge and participation, as well as the representation of Indigenous peoples through an analysis of the narrative and images used in Government reports. An important part of my knowledge is also grounded in the work I have done as Coordinator for Mikana, an Indigenous-led non-profit organization. Our mission's aim is to contribute to social change through education and raising awareness on Indigenous experiences and realities but also to empower Indigenous youth and create systemic changes through long-term collaboration with different institutions.

I brought these experiences with me to my master's research at the Université de Montréal within the Indigenous People, Dogs, and Wellness research project. While my undergraduate research had given me some experience with interviewing urban Indigenous folks, I had no practical experience working with Indigenous communities. Yet, I believed I had the awareness necessary to join the research project, but more importantly to work with rural Indigenous communities. My academic education had given me the opportunity to read works by Indigenous authors and to be aware of ethical considerations to be taken into account in research. My personal background has given me experience in adapting to new environments quickly, working constructively and making connections with people from a wide diversity of cultural backgrounds.

This research project was my top pick for my graduate studies due to its multidisciplinary nature as well as the possibility of travelling to subarctic communities and collaborating with Indigenous First Nations. I was also enthusiastic about the possibility of working with faculty members whose work incorporates Indigenous knowledge systems as well as decolonial and participatory methodology. Defining my Indigenous identity and reflecting on my personal theory is something that has received very little place throughout my higher education; therefore, this conversation is continued in the postface of this thesis.

Acknowledgements

I would like to first thank the communities of Kawawachikamach, Matimekush-Lac-John, and Schefferville for their warm welcome. With a special thank to the Chiefs and Councils, as well as the members of the steering committee. More specifically, I would like to express my gratitude to Kabimbetas Mokoush, Rita Tooma, Caroline Einish and Quencitat McKenzie for working with me and for their dedication to "the dog project". I would like to give thanks to Michel Vollant and Arthemise Fontaine for hosting me at the local radio station when I didn't have access to the internet, but also for helping to recruit informants among local community members. Thank you for your time during my six weeks with you and for sharing your knowledge.

To Ashley Guanish and Marie-Josée Guanish, I give thanks for trusting me and inviting me to your family hunting camp. I would also like to thank Benjamin Jancewicz for accompanying us and photographing our field trips. And finally, thank you to Oksana Choulik for having hosted and fed me amazing food during my field visits, for being my family away from home, and to your four dogs, Maya, Scrappy, Big Dog and Max, for keeping me safe from other dogs.

A special thanks is necessary to my supervisors and family who supported and guided me over the last three years. To my co-supervisor Laine Chanteloup and Liliana Perez, I thank you for your patience and guidance through this process. To Thora Herrmann, for her guidance in developing the conceptual framework that created space for alternative views and Indigenous voices. To my family, partner and friends for listening to my rants about dogs and for never giving up on me. But most importantly I thank my mother, Debbie Bucher, for her unrelenting support and her invaluable editing skills.

Introduction

Dogs play an important role in many creation stories of Indigenous peoples around the world. The "Ininewuk [Cree] perspectives of astronomy" recount for instance the story of the creation of dogs based on Altima Atchjosuk or the Dog Star (Buck, 2009, p. 73).

> "Long ago, the people had no dogs. There was no companion for a lonely child or help for the Elders on long forced marches to new campsites in search of food during times of famine. The people were always surprised when visitors, raiders, and marauding animals entered their camps; they had no warning system that would tell them when danger was near. Our natootimuk, our relatives; the Wolf, Coyote and Fox saw this and were concerned. The wolves held a council and it was decided that they would send two of their own to live with the people. The Council of Coyotes and council of Foxes also decided this same action. Two pups from each of the councils were sent to all the four directions of humankind. They came, adapted, changed and flourished. From these gifts came all the dogs that now inhabit the world. These dogs now guard our homes, communities, camps, and loved ones" (Buck, 2009, p. 73).

The roles of dogs are shown to be those of helpers and protectors, and the story also highlights the Indigenous concept of "all my relations" (further description in Chapter 1, p. 26). The roles and importance of dogs in Indigenous cultures, spirituality and modes of subsistence are also present in numerous other legends (Mazzullo, 2018), primarily the role as alarm systems in Northern communities (Davydov & Klokov, 2018; McCormack, 2018), as hunting partners (McCormack, 2018; Oehler, 2018), as herders of undomesticated animals (Davydov & Klokov, 2018; Mazzullo, 2018), and as a means of transportation (Davydov & Klokov, 2018; McCormack, 2018; Strecker, 2018).

While numerous studies have been done on the changing roles of dogs (Tester, 2010; Riche, 2015; Mazzullo, 2018), they have failed to address the roles dogs play in wellness in contemporary First Nations communities in Northern Québec. Dogs are central to the reality of contemporary Northern Indigenous communities, as they are an integral part of the physical, social and cultural environment but they are also identified as a source of health risks. Attacks, bites, injuries, and the transmission of deadly rabies and other microbes are part of life in Northern communities (Aenishaenslin et al., 2019). These dog-related health issues are exacerbated by the lack of, or

limited access to, veterinary services and other chronic issues, such as the presence of free-roaming dogs and dog overpopulation (Baker et al., 2020).

To tackle these real and reoccurring health issues, a transdisciplinary and multi-university research project has been put in place to promote community wellness within human-dog interface in the North-Eastern Canadian Arctic.

Indigenous peoples, Dogs and Wellness (IPDW)

The research project entitled "Balancing Illness and Wellness at the Human-Dog Interface in Northern Canada" (In Short: Indigenous Peoples, Dogs, and Wellness; hereafter: IPDW) (see Appendix A). This research project has been taking place since 2015 with the goal of improving the health and wellness of Inuit, Cree, Naskapi, Innu and other peoples living in Northern Canada by mitigating dog-associated health risks and by supporting the roles of dogs in health and wellness in Northern communities. The communities implicated in the project include the northern village of Kuujjuaq, the northern village of Kuujjuaraapik, the Cree First Nation of Whapmagoostui, the northern communities of Iqaluit and Cambridge Bay, the Naskapi Nation of Kawawachikamach, the Innu community of Matimekush-Lac-John and the municipality of Schefferville. These communities have experienced human health issues related to dogs over a number of years and have expressed a desire to resolve them.

This research project is guided by a 'two-eyed seeing' model (Bartlett, Marshall & Marshall, 2012; Peltier, 2018), a One Health theoretical framework (Zinsstag et al., 2015) and an ecosystem approach (Harper et al., 2012 ; Aenishaenslin et al., 2019).

A 'two-eyed seeing,' model permits seeing "from one eye with the strengths of Indigenous ways of knowing, and to see from the other eye with the strengths of Western ways of knowing, and to use both of these eyes together" (Bartlett, Marshall & Marshall, 2012, p. 335). This model will take into consideration the diversity of perspectives between and within communities, which is essential in contributing to a comprehensive understanding of the health impacts and benefits of dogs (Peltier, 2018).

A One Health theoretical framework is applied “as a problem-solving concept combining research and public health action in an iterative process” (Zinsstag et al., 2015 p. 18). This framework permits taking into consideration the diversity of worldviews affecting the management of dog populations in Northern Québec. One health recognizes the link between human-animal relations and culture, but also the importance of adapting practices to a local context, and by “considering all forums of academic and non-academic knowledge for practical problem solving at the animal-human interface” (Zinsstag et al., 2015, p. 18).

An Ecosystem Approaches to Health (Ecohealth) permits transdisciplinary research, a participatory and action-oriented approach, an emphasis on sustainable solutions, and explicit considerations of gender and social equality (Webb et al., 2010; Aenishaenslin et al., 2019). “Ecohealth approaches are thus participatory, systems-based approaches to understanding and promoting health and wellbeing in the context of social and ecological interactions (Waltner-Toews, 2009, p. 87). This framework is both “flexible and adaptive” (Harper et al., 2012, p. 90), and is instrumental to address health issues impacting vulnerable communities (Webb et al., 2010).

This project is divided into three phases. The first phase seeks to understand the sociocultural interrelationships between people and dogs and to identify the issues of concern and benefits related to dogs in each participating community. The second phase focuses on 'brainstorming' with each community to determine feasible, acceptable and effective solutions in their specific context. To conclude, the third phase aims to implement and evaluate concrete and culturally relevant solutions tailored to the local context of each of the communities implicated in phase 2 of the project. To accomplish the overall goal of the project, research teams have been established in each community and for each phase of the project.

Research Context and Objectives

The following thesis falls within the first phase of the IPDW project. This research seeks to better understand the socio-cultural and socio-spatial dynamics between dogs and humans and to call into question the current narrative in mainstream media of the relationships between Indigenous keepers and their dogs.

This research was done in collaboration with the Naskapi community of Kawawachikamach ᓇᐢᑲᐱ ᐃᔪᐤ ᐅᑕ ᑲᐋᐋᒋᑲᒪᒡ, as well as the Innu community of Matimekush-Lac-John, both located in North Québec in close proximity to the municipality of Schefferville (Figure 1).This study concentrates on the socio-cultural relations and socio-spatial dynamics between humans and dogs in the Naskapi Nation of Kawawachikamach and the Innu Nation of Matimekush-Lac-John in Northern Québec. This research aims to improve the health and wellness of the people in these communities not only through identifying dog-associated health risks, but also through supporting the role of dogs in promoting health and wellness in these Northern communities. My overall research question is: What are the interrelations between people and dogs in the Naskapi First Nation of Kawawachikamach and the Innu Community of Matimekush-Lac-John and what effects do they have on the wellbeing of the population living in said communities?

This research question will be answered through two objectives:

An analysis of the sociocultural interrelations between humans and dogs in Kawawachikamach, Matimekush-Lac-John and Schefferville

A description of the socio-spatial dynamics between humans, dogs, and wildlife in these communities.

This research concentrates on identifying dog-associated health risks and by supporting the role of dogs in health and wellness in these communities. The investigation of the interrelations between the residents of Schefferville, the Naskapi Nation of Kawawachikamach, the Innu Nation of Matimekush-Lac-John and their dogs was done through a wholistic and Indigenous understanding of the issues surrounding the overpopulation of dogs. To answer the research question and objectives the following research is guided by key concepts derived from decolonial geography, animal geography, and Indigenous wellbeing.

Source : MERNQ - Minister of Energy and Natural Resources of Quebec, Geographical and Administrative Database, scale 1:5 000 000 (BDGA 5M), April 2004. www.mern.gouv.qc.ca/territoire/portrait/portrait-donnees-cinq.jsp

Figure 1. – Location of Study Sites

The following thesis is divided into six chapters. The first chapter gives an overview of the theoretical framework and key concepts used to support this research. The second chapter includes the methodological frameworks, presenting the study sites, the three research methods, and the data analysis. Chapter 3 consists of an academic journal article written for the submission of this thesis. The article is entitled *Wellness, Dogs, and their Keepers in Two Subarctic First Nation Communities* and is based on the results of this study and is pending publication until after community consultation. Chapter 4 goes on to discuss limitations of the research and efforts taken to counterbalance them. This is followed by the outputs of the action research in chapter 5. And finally, the conclusion is in chapter 6.

Chapitre 1 – [Conceptual Framework]

This chapter examines the literature and theoretical framework that guides this research. It begins with a focus on decolonial geography by covering the increasing number of published studies describing the role of decolonization in Indigenous research and in academia. This section will mobilize Indigenous voices and scholars to highlight diverse perspectives, alternative research methodologies, Indigenous conceptions of wellbeing, and the importance of social inclusion. Next, concepts from animal geography are discussed to examine the role of decolonial geography in animal studies and colonial impact on wildlife management. To have a better understanding of the role of dogs in northern Indigenous communities, this section compiles knowledge on human-dog relations from Arctic regions around the world. Finally, the closing section of this chapter presents Indigenous conceptions of wellbeing, as a means to further examine the impact of current dog management strategies and to surpass the physical components of health, to include spiritual, social, cultural and emotional health.

1.1 From 'Post' Colonial to Decolonial Geography

Decolonial geography offers a framework to analyze the findings of this research in terms of human-dog relations in an Indigenous context. It creates a means to leave the colonial paradigms behind so as to examine new power relations between humans and animals (Belcourt, 2015). As outlined by Vickers (2007), "Colonization has a world history of violence and oppression based on the delusional belief that the Indigenous are inferior and subhuman needing to be subdued, civilized and controlled" (p. 598). A theme that emerges from the Judeo-Christian traditions is the view of humankind as superior to nature, including all other animals and plants (Aikenhead & Ogawa, 2007). This conception of nature permits humans to "investigate, rule and exploit nature" (Aikenhead & Ogawa, 2007, p. 549). Such a worldview "was embraced by 17th-century natural philosophers and enthusiastically taken up by 19th-century scientists," and to this day, the dichotomy of humans and nature still lives on (Aikenhead & Ogawa, 2007, p. 549).

Several authors have attempted to break down the binary constraints of colonialism, leading to the development of postcolonial theories, studies and geography (de Leeuw & Hunt, 2017,

Sidaway, 2017; Whyte, 2017). Noemi Klein (2016) demonstrates that Edward Said's conception of "othering" permits, "denuding the humanity of another culture[s], people[s] or geographical region[s]" (p. 12). The theory of Orientalism, as developed by Said, describes a dominant and superior attitude towards other cultures and the foundation for postcolonial studies: "Postcolonial theory remains […] an intellectual space in which subaltern, often, people can deconstruct and contest colonial thought and structures of power" (de Leeuw & Hunt, 2017, p. 4).

Decolonial geography provides a means by which alternative forms of knowledge production can be recognized and given space within this research. The aim of including Indigenous epistemology when developing decolonial methodologies is to ensure that the research takes the social and cultural context of the Indigenous community affected into account. North American Indigenous scholars have adopted this methodology in which the focus is on decolonization "deployed as a means of interrogating ways that knowledge–making practices marginalize or discount specific people and places" (de Leeuw & Hunt, 2017, p. 3). More often than not described as a practice from the past, Reimerson (2013) maintains "that colonialism is not a terminated enterprise but continues in new forms" (p. 994), which is demonstrated in the Western approach to the issues affecting Indigenous peoples and dogs in Northern Québec. Historic assimilation strategies implemented in Canada included the residential school system (Hurley & Gordon, 2009; Indian Act, 1876) but also the RCMP-led slaughter of Northern dogs in the 1960s (Makivik Corporation, 2013), examples of the perpetuation of colonial attitudes in the treatment of Indigenous peoples (Lévesque, 2018b).

In recent years, there has been a growing interest in decolonial geography, outlined by de Leeuw and Hunt (2017) "as emerging within an understanding that settler colonialism is persistent, relentless, and normative" (p. 9). Through creating "counter realities and alternative ways of knowing and being," Indigenous scholars work within academia seeks to dismantle settler colonialism (de Leeuw and Hunt, 2017, p. 6). In including alternative voices and forms of knowledge, decolonization seeks to feature Indigenous peoples and their systems in the discipline of geography, including, but not limited to, the citation of Indigenous literature, epistemology and traditional knowledge (de Leeuw and Hunt, 2017). The use of decolonial and Indigenous

methodology has increased over the last six to seven years, changing "the very ways geographic knowledge is produced" (de Leeuw and Hunt, 2017, p. 6). Such methodology comprises *community-based participatory action research* (hereby: CBPAR), which was used to inform and guide the following research method with the Naskapi Nation of Kawawachikamach and the Innu Nation of Matimekush-Lac-John.

Social Inclusion

This study seeks to establish social inclusion of community members from both Kawawachikamach and Matimekush-Lac-John, in the research in a wholistic manner by including their "perspective, approach and application" (Absolon, 2016, p. 48). Social inclusion emphasizes that embracing culture leads to "positive results in healing and wellness" (Absolon, 2016, p. 48). Brondizio and Tourneau (2016) offer the idea that while it has been recognized at an international level, including Indigenous knowledge at the local level, is lacking, if not non-existent in most research; nonetheless, through the creation of ethical spaces, management methods have the potential to be culturally appropriate. Constable, Dixon, Dixon & Toribio (2013) reveals that the most successful cases of dog management in Australian Indigenous communities occurred when importance was placed on "listening (community consultation), developing and maintaining relationships [with community members], community involvement, and [local] employment" (p. 322). Similarly, Davies et al. (2013) observe that traditional stewards of the land have a "greater sense of ownership of management plans," and were more likely to implement those if they "reflect their worldview."

There is a considerable amount of literature on the differences between Western and Indigenous worldviews (Loo, 2006; Yarbrough, 2015); however, previous work has predominately focused on Western approaches to solving health issues in relation to Indigenous peoples (Mundel & Chapman, 2010). Not accounting for the cultural context of the affected Indigenous communities creates culturally inappropriate solutions which have lower chances of being successful (Dhillon et al., 2016). Most dog management studies have unilaterally focused on the veterinary sphere of the problem; further, they have been enacted by outsiders onto and imposed on Indigenous communities (Constable et al. 2013). As recommended in previous literature (Constable et al.

2013), this research included members from both First Nations communities in the development of the [1]project to ensure that their needs and wants were taken into account in research questions and methodologies.

In recent years, geographers focusing on more-than-human and animal geography have "voiced a need to decolonize both our discipline and postcolonial theory by placing and engaging indigenous worldviews" (de Leeuw & Hunt, 2017, p. 4). Belcourt (2015) grapples with the idea that to "dismantle speciesism or [to] reimagine human-animal relations in the North American context [the] dismantling [of] settler colonialism and [the] re-theorizing [of] domesticated animal bodies as *colonial subjects…* must be centred in decolonial thought" (p. 3).

1.2 Animal Geography

Armstrong (2002) identifies two themes in postcolonial geography that are relevant to animal studies: (1) European colonization has played a leading role in the binary construction of humans and animals, and (2) "Indigenous cultural knowledge […] poses radical challenges to the dominance of western value systems" (p. 441). Hovorka (2014) also states that animal geography can "demonstrate how Western ideas of how humans should relate to nature (dominate, commodify, protect) are exported around the world through policies and management strategies" (p. 388).

> Just as post-colonialism has tried to remember the differences between systems of thought derived from Europe and those of the other cultures it seeks to understand, animal studies must respect animals for their differences from, rather than their similarities to, the humans with whom they have to live (Armstrong, 2002, p. 417).

Animal geography has "arisen in… response to our political and ethical responsibilities to the species who share our planet" (White, 2015, p. 21). The term "animal geography" is understood to refer to the establishment of "general laws on how animals arrange themselves across the earth," including human-animal divides and how identity is shaped by "ideas and representation of animals" (Emel, Wilder & Wolch, 2002, p. 408). However, the representation of animals has been depicted as stemming from an "anthropocentric, speciesist, and humanist" ideology (White,

[1]

2015, p. 21). Belcourt (2015) posits that “animal domestication, speciesism, and other modern human-animal interactions are only possible because of and through the historic and ongoing erasure of Indigenous bodies and the emptying of Indigenous lands for settler-colonial expansion” (p. 3). Animals are seen as passive creatures that are unable to enact agency, “rather than complex beings,” demonstrating the embedded concept of human superiority (Rasmussen, 2015, p. 61). The concept of speciesism, conflicts with Indigenous epistemology, and therefore its normalization “Within Indigenous communities [was necessary] to obfuscate the radicalness of Indigenous-animal relations” (Belcourt, 2015, p. 9).

Overall, Western wildlife management methods used in the past have placed the interest of animals second in comparison to the interests of “the affluent white men,” whose priorities consisted of ensuring continued leisure activities such as hunting and fishing (Yarbrough, 2015, p. 115). As Hovorka (2014) mentions, “Indigenous and animal circumstances, experiences, and standpoints have been plundered alongside one another through dominant Western worldviews and imperialist projects” (p. 389). The predominance of Western conceptualization of nature and of human-animal relations have silenced the role of Indigenous epistemology and prevented animal and human wellness from being of central concern.

This research seeks to apply animal geography, as outlined by Hovorka (2014), to “expose the extent to and ways in which Indigenous perspectives and approaches are excluded from wildlife or wilderness management” (p. 389), including the management of dogs. Belcourt (2015) notes a gap in Indigenous studies in the “recognition of animals as colonial subjects” (p. 8). He argues that a “decolonial animal ethic must operate […] by using Indigenous cosmologies as frameworks for a non-speciesist and anti-colonial animality” (p. 8).

Animal geography demonstrates the colonial impact that shapes the perception of human-animal relations. Through acknowledging that different people have different relations with animals, Hovorka (2014) argues that animal geography can illustrate and provide space to create a global and more inclusive “perspective on human-animal relations” (p. 383). She also argues that the engagement of animal geography in postcolonial geography provided “subaltern human voices” with a means to “express their worldviews” (p. 389). Similarly, Belcourt (2015) proposes that

decolonial thought prioritizes the use of Indigenous cosmologies and oral traditions to recall the traditional representation of animals—a technique that has already started to take shape in the community of Kawawachikamach with the development of oral legends into books, both for adults and children. [2]

In her article, Todd (2014) examines the need to further the understanding of human-fish relations, considering the "heavy regional policy and academic focus on charismatic megafauna," and how Indigenous human-animal relations challenge the current wildlife management methods (p. 218). This can be seen in dog management strategies implemented in northern Québec, which have failed to take Indigenous epistemology into account (Lévesque, 2018a). Todd (2014) describes Indigenous epistemology as being "rooted in dynamic relationships between people and their world, relationships that extend temporally to time immemorial (ingilraani)" (p. 218).

Challenges in including Traditional Knowledge in Western management techniques have been depicted by Todd (2014) as being "massaged to fit into existing scientific-legal discourses employed by the processes of the State" (Todd, 2014, p. 221). The primary objective is to create a space within animal geography, where the "positions, experiences and claims of all humans and all non-humans [are taken] seriously without privileging anyone presumptively" (Hovorka 2014, p. 389).

Human-Dog Relations in the Arctic and Subarctic

More specifically animal geography will provide a space to explore the importance place on dogs in circumpolar communities. The significance of dogs has been said to steam from their roles as alarm systems (Davydov & Klokov, 2018; McCormack, 2018) to being hunting partners (McCormack, 2018; Oehler, 2018), as well as helping with the herding of undomesticated animals (Davydov & Klokov, 2018; Mazzullo, 2018) and providing modes of transport (Davydov & Klokov, 2018; McCormack, 2018; Strecker, 2018).

Davydov and Klokov (2018) draw attention to the use of dogs as alarms by standing guard and barking when predators or other humans approach, an ability that was facilitated by their "fine

[2] For details on books of Naskapi ledgends see: http://billjancewicz.com

sense of smell, and [their] sensitive[ity] to predators" (p. 56). Their sense of smell is also ideal to participate in hunting activities with their humans (Davydov & Klokov, 2018). A growing body of literature examines dogs' ability to travel over "crusted" snow and to participate in hunting practices by trapping animals until the hunters arrive (Davydov & Klokov, 2018; McCormack, 2018; Oehler, 2018). Kuhnlein and Humphries (2017), for example, present the use of dogs in Indigenous moose hunting methods, such as the "running down strategy" which consists of tiring the moose out, and a "semicircular tracking… [where] dogs assist the hunter by cornering the moose or forming semicircles around it." Similarly, Mazzullo (2018) argues that dogs were found as indispensable to reindeer herders due to the numerous tasks that they fulfilled; therefore, a high level of importance is placed on dogs and their role as "co-worker[s] and companion[s] by Sámi" people (p. 252). Even today, dogs are considered family members, animals that "should not be kept in captivity" (Mazzullo, 2018, p. 252).

Several studies, including those of Mazzullo (2018), McCormack (2018), and Strecker (2018), have outlined the role children play in raising dogs in various Northern Indigenous communities and the relations between children and puppies. Dog training methods are described by Mazzullo (2018) as resembling the way children learn "By doing, not by training… [they] must learn on [their] own accord and with [their] own speed, without too much pampering" (p. 257). McCormack (2018) also examines the similarities between the treatment and role of children and puppies. She labels them as equally "spoiled, [and] played with" (p. 128). In fact, both children and puppies receive names and are "understood to have individual personalities" (McCormack, 2018, p. 128).

The qualities associated with dogs described above in Arctic and subarctic Indigenous communities demonstrate the importance of dogs and their influence on their keepers' daily lives. Colonization in Canada has altered the traditional roles of dogs in Indigenous communities; however, understanding their importance and utility is crucial to comprehend and position dogs within a larger context.

1.3 Indigenous Wellbeing

The colonial policies that aimed to assimilate Indigenous peoples (eg: the Indian Act of 1876, Canada) have altered their lifestyle and created an environment where their values, traditions, conception of wellbeing and traditional knowledge are not only not well understood but also undervalued (Mundel & Chapman, 2010). "The ways in which Indigenous peoples can use and relate to environmental and non-human resources within their traditional territories" has been significantly altered (Montesanti & Thurston, 2016, p. 347). Loo (2006) outlines a clear historical evolution of the treatment of wildlife in Canada, as well as the social and cultural views held towards nature and wildlife. The past focused on the use of Western science and values to develop environmental management methods (Loo, 2006). However, the validity of using Western perspectives to solve problems affecting Indigenous peoples is now being called into question.

Indigenous worldviews are different from one nation to another and even within communities from the same nation; however, similarities exist between Indigenous peoples around the world (Amadahy & Lawrence, 2009). The primary similarity is the relationship Indigenous peoples have with other animate and inanimate beings, a principle that comes from the interdependence and interconnectivity between all things in the environment (Little Bear, 2000; Amadahy & Lawrence, 2009).

> "Indigenous peoples across the globe share a deep understanding of their land, and its spiritual connection with the people, a connection that plays a key role in providing safe and healthy environments (Burgess et al., 2009). The land is therefore a fundamental component of Indigenous culture and identity, having physical, spiritual, cultural and emotional bonds" (Montesanti & Thurston, 2016, p. 346).
>
> "If everything is animate, everything has spirit and knowledge. If everything has spirit and knowledge; then all are like me. If all are like me, then all are my relations (Little Bear, 2000, p. 78).

The quote above demonstrates that "when everything is related and relationships require responsibilities, the whole of existence is comprised of a web of interrelationships sustained by concomitant responsibilities" (Aikenhead & Ogawa, 2007, p. 558). The conception of

interrelations between Indigenous peoples, the land, and everything found in nature, creates both importance and a sense of responsibility that cannot be ignored when implementing management methods for dogs. The land rests at the heart of Indigenous culture, spirituality, and conception of wellbeing. Indeed, "the physical displacement of Indigenous peoples from their traditional lands and territories, in Canada and around the world, has negatively affected the collective wellbeing of Indigenous populations" (Montesanti & Thurston, 2016, p. 347).

Culture and language are interrelated since language "reminds us of who we are; it is deeply entwined with personal and cultural identity. Language matters because it holds within it a people's worldview […] one must therefore assert the interrelationship between indigenous language structure and worldviews" (Kovach, 2010 p. 59). Kovach (2010) acknowledges that it is therefore not surprising that the "first approach to erasing a culture is to attack its language because language holds such insight into the social organization of a people" (p. 60). Language has been identified as a central component to Indigenous epistemology and ontology. Consequently, language needs to be taken into account when developing culturally appropriate dog management methods, and especially given that the loss of language has historically been associated with the loss of culture.

> "Indigenous ways of living in nature are communicated and learnt in the oral tradition through listening to stories, singing songs, reciting prayers, dancing at celebrations, and participating in spiritual ceremonies; all of which are passed on from generation to generation" (Aikenhead & Ogawa, 2007, p. 554).

The use of decolonial geography in this research project provides space to capture alternative forms of knowledge and worldviews, such as songs, stories and dances, and diverse worldviews. Constable et al. (2013), outline the importance of including the worldview of the community affected as it may fundamentally differ from that of the researcher. This can explicitly be seen in the differences between the Western conception of wellbeing and that of Indigenous peoples. Indigenous worldviews include a holistic aspect, which is also transmitted to the conception of health and wellbeing (Parkes, 2011). Rather than focusing on the physical components of health, "In many Indigenous world views, health is not just the absence of disease, but optimal

functioning of mind, body and spirit, and interlinks with the social, emotional and cultural well-being of the whole community" (Constable et al., 2013, p. 323).

Wholistic View of Wellbeing

The current solutions implemented to combat "dog problems" affecting Indigenous communities in Northern Québec are inconsistent with their cultural and spiritual practices (Mundel & Chapman, 2010; Kral et al., 2011). At the heart of this problem nests the difference between the Euro-Western conception of wellbeing and that of Indigenous wellbeing (Parkes, 201; Constable et al., 2010; Hovorka (2014).

> "In a majority of Indigenous communities with a close linkage to the land, the concept of health is holistic, involving physical, social, emotional, spiritual, cultural and environmental wellbeing (Committee on Indigenous Health, 1999; Lutschini, 2005; Boulton-Lewis et al., 2002) and is based on relationships with people and the land" (Montesanti & Thurston, 2016, p. 349).

Kral et al. (2011) demonstrate that the connection Indigenous peoples have to the land goes hand in hand with their conception of wellness/wellbeing. Unlike the Western perspective, for Indigenous peoples, the concept of personhood functions in relation to social and environmental ties to their family and land (Kral et al., 2011). A growing body of literature has identified that the central theme associated with Indigenous wellbeing is kin, as well as the ability to go out on the land with one's family (Kral et al., 2011; Durkalec et al., 2015). Communication between family members is also identified as an essential component of wellbeing, especially in situations where negative feelings arise (Kral et al., 2011). Kral et al. (2011) also bring attention to the physical components of wellbeing, such as eating country food and participating in traditional activities. They identify the absence of "family, talking or communication, and traditional Inuit cultural values and practices" as being linked with unhappiness (Kral et al., 2011, p. 433). Nadasdy (2003) attributes the importance of dogs in Inuit culture to their role in accessing food sources and providing safety. Inuit elders recognize dogs as family members because of the intimate and important relationship they have with them (MacDonnell, 2017). Similarly, the Cree Nation of Whapmagoostui, located in Northern Québec, identify health as:

> "living a 'Cree way of life' that is imbued with robust connections to the physical and spiritual northern landscape (Adelson, 2000, p. 62). Health is 'Inseparable from being able to hunt, pursue traditional activities, live well in the bush, eat the right foods, keep warm, and provide for oneself and others' (Adelson, 2000, p. 97). Anthropologist Naomi Adelson (2000) translates the Wemindji Cree term for 'health' as the subjective experience of 'being alive well. This concern for 'being alive well' encompasses the wildlife and the land" (Montesanti & Thurston, 2016, p. 349).

In recent years, there has been a growing interest in how the inability to participate in cultural practices affects the mental health of Indigenous peoples (Kirmayer, Simpson & Cargo, 2003; Mundel & Chapman, 2010; Durkalec et al., 2015; Montesanti & Thurston, 2016). Durkalec et al. (2015) highlighted that the connection Indigenous peoples have with the land and with all living and nonliving entities on the very land, including dogs, is embedded in their culture. Participants equate being disconnected from the land with losing part of themselves (Durkalec et al., 2015). This is seen in the representation of ice as freedom of movement that permits Indigenous people to escape their society, where they are free to make their own decisions and have the liberty to go where they want (Durkalec et al., 2015). Travelling across the land constitutes a way to escape back to how their ancestors lived, a way to withdraw from the social problems of their community (Durkalec et al., 2015; Rietveld, 2015). Participating in traditional activities on the land is also seen as a form of social activity, giving Indigenous peoples the opportunity to connect with friends and family (Kral et al. 2011; Durkalec et al., 2015). Inuit Qaujimajatuqangit, for example, which is the traditional knowledge of the land and traditional practices, signifies an essential determinant of wellbeing within the Inuit population (Kral et al., 2011). Traditional knowledge and practices are connected with family and communication; one is not possible without the other (Kral et al., 2011).

Chapitre 2 – [Methodological Framework]

The following section presents the study site, the research question and the objectives used to guide this study, as well as the Community-Based Participatory Action Research (hereby: CBPAR) approach that was applied. The methodologies used for data collection, semi-structured interviews, photovoice and participatory mapping, are outlined in detail. This section also covers the methodology used for the selection of research participants as well as the data analysis used.

2.1 Community Based Participatory Action Research (CBPAR)

This research was a collaborative project, guided by the key principles of decolonial geography, which prioritized ways to best serve the interest of the communities studied rather than the interests of academics involved in this research (de Leeuw and Hunt, 2017). This permitted the creation of a methodological framework based on community participation, including implementation of CBPAR "to change the very way that geographic knowledge is produced… [by] looking at geographic tools and calling for practices to be undertaken in partnership with Indigenous peoples and communities" (de Leeuw & Hunt, 2018, p. 7). This research project used the following definition of CBPAR:

> "Collaborative approach to research, [CBPR] equitably involves all partners in the research process and recognizes the unique strengths that each brings. CBPR begins with a research topic of importance to the community with the aim of combining knowledge and action for social change to improve community health" (Minkler et al., 2003, p. 4).

Our methodology is grounded in a research question based on community needs and concerns, involves researchers and local partners in all stages of the research process, from design to dissemination, and aims to enact social change by sharing the community perspectives and experiences with human dog relations. CBPAR was selected for this project because it fits the local context of the Naskapi and Innu Nations and allows for co-designing of the research methodology and the co-collection and co-analysis of data with community partners such as dog keepers, teachers, business owners and dog vaccinators, etc. CBPAR facilitates building trust and mutually

respectful and productive relations between the members of our research team and the communities with which we collaborate.

This research project was presented to the Band Council of the Naskapi Nation of Kawawachikamach during a preliminary field session in April 2018 by the research team[3]. At the council meeting, research objectives and activities were determined as well as the nature of collaboration with the Naskapi Nation. A second meeting with the members of the research steering committee, the band council and the local coordinator was held in Montréal in August 2018. During this meeting, the main outputs of the research were discussed (further description in Chapter 5, p. 72). The research received written approval from both First Nation Band Councils, as well as the support of the Administrator of Schefferville (see Appendix B).

A steering committee was set up to oversee, guide and give advice to the research process and activities for the duration of the project as well as to determine the priorities actions to be undertaken. The steering committee is composed of members that represent the different organizations and communities of interest within the community of Kawawachikamach including the local vaccinators, a representative of the wellness and health committee, a representative of the police department, a representative of the Band Council/municipality.

In April 2019, the communities of Matimekush-Lac-John and Schefferville were added to the research project upon the request of the Naskapi steering committee. The research project was presented during a meeting with the General Director of the Innu Band Office of Matimekush-Lac John, following which the research project received an official letter from the General Director highlighting the community's interest in participating. The project was also presented to the Administrator of Schefferville (a position equivalent to that of a mayor), who also expressed support for this research project.

Local coordinators were recruited to contribute to all aspects of the research in both First Nation communities. Moreover, regular meetings were held during the entirety of the project with respective community authorities (i.e., Chief and Band Council of the Naskapi Nation of

[3] The refference to the research team is in relation to this masters research and includes myself (student researcher) two supervisors and local coordinators.

Kawawachikamach, Chief and Band Council of the Innu Community of Matimekush-Lac-John), key stakeholders in charge of dog management and knowledge holders concerning dogs (i.e., Elders, local dog experts) (2018-2020).

We followed the provisions outlined in the 2014 Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans and those outlined in the First Nations Information Governance Centre. In accordance with the First Nations Principles of OCAP™ (ownership, control, access, and possession), a research framework was developed to give participants of each community access to and possession over their data. To ensure ethical collaboration, the results of this research and any scientific publications will be first presented and discussed with community members to validate, better contextualize and co-analyze the findings. The research team co-wrote scientific publications, reports, and posters with community members. In the case that the research findings are presented in a conference, the research team will co-present with community members.

As described above, we requested and obtained approval for the project by relevant bodies prior to conducting data collection and analysis in participating communities. An ethics certificate was received from the University of Montréal in October 2018, with modifications approved in December 2020. [4]

2.2 Study Site

The province of Québec officially recognizes eleven Indigenous Nations, including the Naskapi Nation of ᑳᐧᐋᐧᐄᒋᑲᒫᒡ Kawawachikamach, and the Innu Nation of Matimekush-Lac-John, located in proximity to the municipality of Schefferville (Gouvernement du Québec: Secrétariat aux affaires autochtones, 2020). All three communities are geographically isolated, located some 510 km North of Sept-Îles, and can only be reached by a 14-hour train ride or by plane (Figure 1).

The Municipality of Schefferville was founded in the 1950s by the Iron Ore Company of Canada and counted a population of 4,500 (Ellingson, 2020). According to community archives, the town

[4] Université de Montréal Ethics Certificate: Projet CERAH-2020-122-D

of Schefferville was built very quickly for mining purposes with the Naskapi people and members of the Innu communities of Uashat and Mani-team moving to Schefferville in search of economic opportunities (Nametau Innu, 2010)

Kawawachikamach is the only community of the Naskapi Nation recognized in Québec (Gouvernement du Québec: Secrétariat aux affaires autochtones, 2020). The traditional territory of the Naskapi Nation ranged from the Bay of Ungava to the coast of Labrador in the east and to the Hudson Bay in the west (Marquis, 2009; Lévesque, Geoffrey & Poles, 2016). Since the arrival of Europeans, the Naskapi Nation has been relocated many times in accordance with the movement of trading posts (Henriksen, 1973; Cooke, 1976). The Indian Affairs government branch "urged the Naskapis to move near Schefferville where they would find familiar territory and have prospects of employment" (Blumberg et al., 1964, p. 266). The final relocation of the Naskapi Nation was to their current site, 16 km from the Municipality of Schefferville, on land they received in accordance with their signing of the James Bay and Northern Québec Agreement in 1978 (Government of Canada; Indigenous and Northern Affairs, 2014).

The Innu community of Matimekush-Lac-John is the most northern of nine Innu communities in Québec (Gouvernement du Québec: Secrétariat aux affaires autochtones, 2020) [5]. Nitassinan, the traditional territory of the Innu Nation, expands beyond the provincial border of Québec into the province of Newfoundland and Labrador (Higgins, 2008; Pollock, 2008). The community of Matimekush-Lac-John is made up of two separate locations, Matimekush and Lac-John. Oral traditions state that the Innu population first lived in tents near the Schefferville airport, before being relocated to the area known as Lake John situated 3 km away (Nametau Innu, 2010). Lac-John was transferred from provincial to federal jurisdiction in 1960, "during the golden age of neighbouring iron ore mining exploitation" (Nametau Innu, 2010). Eight years later, the community of Matimekush was also transferred to federal jurisdiction, creating Matimekush-Lac-John under the Indian Act (Nametau Innu, 2010).

[5] Pessamit (Betsiamites), Essipit, Unaman-Shipu (La Romaine), Mashteuiatsh, Ekuanitshit (Mingan), Natashkuan (Natashquan), Pakut-Shipu (Pakuashipi, St-Augustin), Uashat-mak-Mani-utenam (Maliotenam).

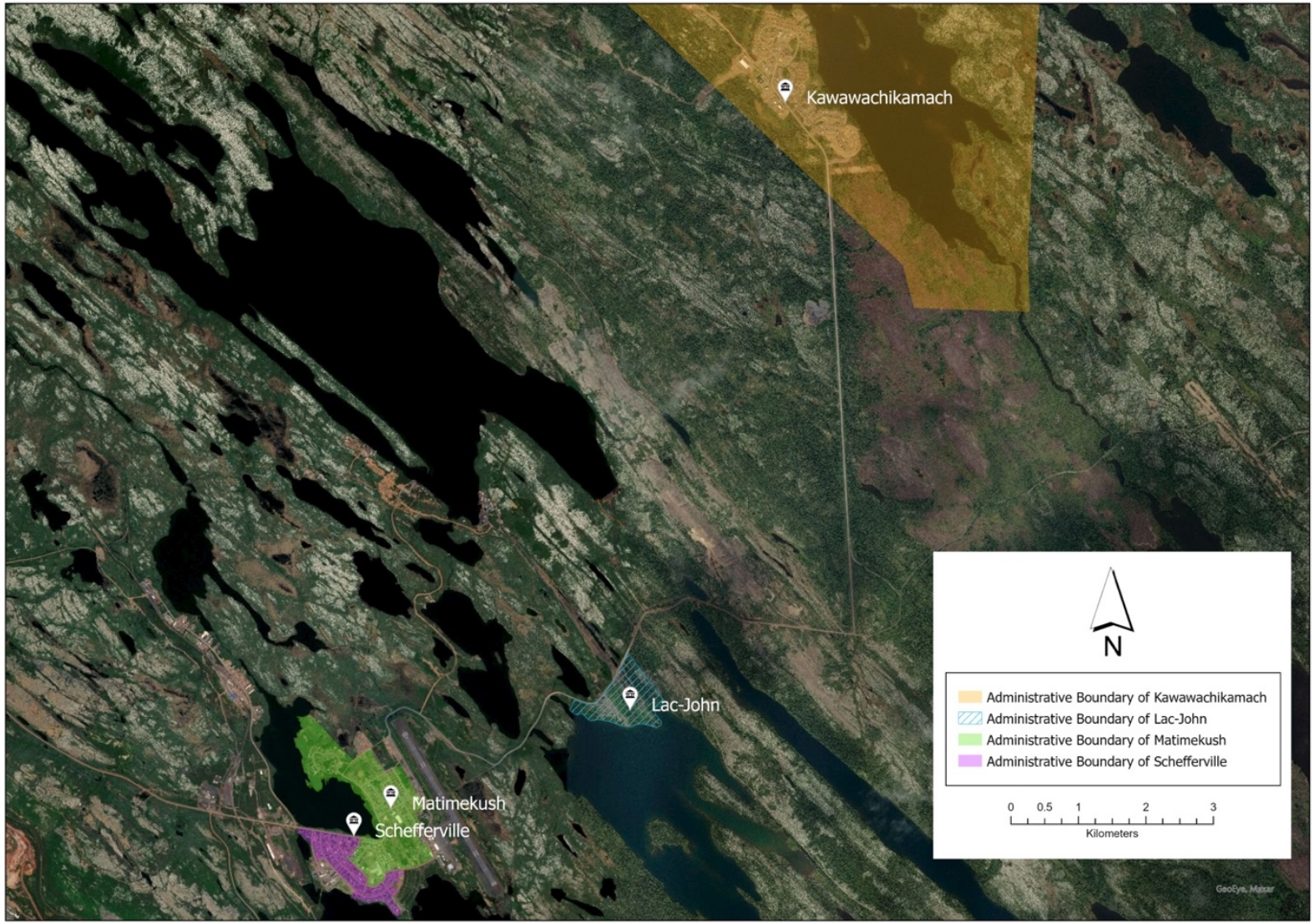
These two First nations not only have different colonial experiences and reasons for relocating to Schefferville, both First Nations are culturally distinct. Today the Naskapi nation counts a population of 1,056 band members (Naskapi Nation of Kawawachikamach, n.d.), they primarily speak their native language, Naskapi, as well as English and they "belong to the Anglican church" (Dyke, 1970, p. 47). On the other hand, the community of Matimekush-Lac-John has a population of 750 people (Nametau Innu, 2010), who speak primarily Innu, with French as their second language, and "adhere to the Roman Catholic faith" (Dyke, 1970, p. 47).

Both First Nation communities have reclaimed their self-government and self-determination, for example, they are the first nations to own and operate a railroad in Canada (Ellingson, 2020). "Since 2005, it has been run by the three First Nations that it connects the Innu nations of Uashat Mak Mani-team and Matimekush-Lac John, and the Naskapi nation of Kawawachikamach" (Ellingson, 2020).

These three communities are geographically isolated, but they are in close proximity to each other and they each have their own jurisdiction and governing systems (Figure 2). For example, while the Innu Nation falls under the Federal Indian Act, the Naskapi Nation is a beneficiary of James Bay and the Northern Québec Agreement, giving them jurisdiction over a larger expanse of land but also giving them access to a "range of services and programs" funded by the federal and provincial governments (Government of Canada; Indigenous and Northern Affairs, 2014). The town of Schefferville, on the other hand, is a municipality under provincial jurisdiction. This division of jurisdiction can be seen in the differences in the services offered in the three communities. While each community has their own health centre (CLSC), Kawawachikamach also has an independent police and fire service, as well as a primary and secondary school. Matimekush on the other hands, only has a primary school, and is served by the provincial police (sûreté du Québec, SQ) and the Schefferville fire service.

Despite these jurisdictional differences, the free-roaming dog population does not respect the administrative boundaries and interact with people from all three communities. For this reason, the Naskapi steering community highlighted the importance of including their neighbors in the following research project.

Figure 2. – Study Site Map



Source: ESRI - Geographic information system company, Produced by Liliana Perez (dec. 2020)

2.3 Data Collection

This research project was conducted using three data collection methods: individual semi-structured interviews, a photovoice contest and participatory cartography. The field work took place in two trips. The first session took place from mid-April until the end of May 2018, the second was done in April 2019. Over the course of the field visits, the researcher (myself) worked with a local Naskapi and an Innu coordinator/ co-researcher (Kabimbetas Noah Mokoush, Rita Tooma and Kuanceeta Mckenzie) and the research project steering committee.

The multiple trips to the community were planned to ensure a continued collaborative research process that gave participants the chance to be involved at all levels of the research, including reflection on, modification of and continued development of the data. The length and frequency of the field work ensured accessibility of the research team to community members and fluid and long-term communication.

2.3.1 Interviews

Individual, semi-structured face-to-face interviews were conducted on participants' perceptions, feelings, memories, observations and experiences regarding their own dogs, their children's relations with dogs, as well as the implications of today's high dog population on community members and the solutions currently being used to tackle these issues.

The semi-structured interviews were conducted using an interview guide to steer the discussion with the participants (Galletta, 2013). This method was chosen because of its ability to allow for a dialogue between the researcher and the participants (DiCi Bloom & Crabtree, 2006). The interview guide was developed based on the literature review of this research project and the concerns highlighted by the steering committee, both of which emphasized the knowledge gaps in relation to the role and importance of dogs in the Naskapi culture and their role in the wellbeing of community members. Amongst the themes covered in the interviews were pet demographics, pet care, attitudes towards dogs, the cultural role of dogs, and personal experiences with dogs.

Interviews were done on a voluntary basis, following an interview guide developed with the steering committee to ensure its cultural relevance (see Appendix C). Over the course of six weeks, 14 interviews were conducted in Kawawachikamach, 14 interviews in Matimekush-Lac-John and 7 interviews in Schefferville. The interviews took place at the participant's desired location, ranging from their home, office, restaurant, cars and hunting camps. The interviews lasted on average 40 minutes and were recorded for transcription purposes. The participants had the choice of either written or oral consent forms created for this project.

2.3.2 Photovoice

A photovoice contest was carried out during the 2019 field session. All community members from both First Nation communities were invited to submit a photograph representing the importance and/or the roles of dogs in their community. Each photo was accompanied by a caption that explains why the person chose that particular photo. Photovoice is a "participatory visual research methodology" (Higgins, 2014, p. 208) that aims to create a dialogue between community members affected by the current dog management methods and policy-makers (Castleden, Garvin, & Huu-ay-aht First Nationm, 2008). Photovoice has been found to be "an effective method for sharing power, fostering trust, developing a sense of ownership, creating community change and building capacity" (Castleden, Garvin, & Huu-ay-aht First Nationm, 2008, p. 1401).

Through a voluntary call out, using an advertisement poster and radio call out (see Appendix D), community members were invited to submit a picture and an accompanying caption to the researcher. The radio announcement in Kawawachikamach was done with the research team and the local coordinator in Naskapi and in English. For the Community of Matimekush, the announcement was done with the research team and local radio host in Innu and in French. All photographs submitted were compiled into a calendar for 2020, three copies of which were given to everyone who submitted a picture (see Appendix E). The photographs were also included in a digital photo gallery on the story map (future details in Chapter 5, p. 72). This method provided space within this research to identify and analyze the views, voices and stories of community members about their dogs (Palibroda et al., 2009). In order to acknowledge all persons who

participated in the photo contest for the calendar, their full name is mentioned on each photo to acknowledge ownership unless a participant explicitly wishes to stay anonymous.

2.3.3 Participatory Mapping

The second objective of this research project was to conduct cognitive mapping through semi-structured interviews with participants in each of the three communities under study. Two maps, one of Schefferville and Matimekush and one of Kawawachikamach, were provided to participants as a means to share their perceptions and observations of the spatial distribution and frequency of contact between humans-dogs-wildlife (i.e.: zones of fear, risk zones, safe areas, play areas) (see Appendix F). The individual interviews paired with the participatory cartography facilitated dialogue between the researcher and the participants. While some participants preferred to orally describe their experiences, others drew directly on the map.

Interview participants identified spaces avoided due to high dog activity or where dog fights have taken place. Participatory mapping permitted the research team to establish areas in each community associated with fear and where community members take excessive precautions when walking. It also permitted the researcher to identify the locations used for dog walking and where participants experienced dogs-wildlife interactions. (Preliminary results included in the ARC GIS Story Map; A Dog's Life in the North, see Appendix G). This methodology was selected as it permits spatial analysis of the distribution of dogs in these communities at both an individual and a community level, and more specifically, an analysis of the frequency and zones or areas of human-dog interactions.

2.3.4 Participants

Semi-structured individual interviews and participatory mapping participants were recruited during the first field session in April 2019 through the snowball sampling technique (Acharya et al. 2013), voluntary sampling during face-to-face contact, a callout on the community radio, and via poster advertisements. The local coordinators also identified community members interested in the research. Participants included adult men and women, dog keepers and non-dog keepers,

as well as parents of young children and Elders. Participants represented diverse social categories based on gender, age and occupation but were not representative of the whole community.

The research project was explained to both interview and photo voice participants. The photo voice participants received a form with details on participation modalities, photo formats, the raffle, data property, and a request for their contact information to receive a calendar (see Appendix H). Interview participants were invited to either sign a consent form or give their oral consent (see Appendix I). All participants were given time to read the consent form and the researchers answered any questions regarding the research, their participation in the research and its consequences. With the consent of the participants, the interviews were recorded and later, transcribed.

The interviewed participants were financially remunerated for their interview and their names were put in a raffle draw. Members of the Naskapi Nation of Kawawachikamach received their payment through checks, members of the Innu Nation of Matimekush-Lac-John received a $25 credit at the local “dépanneur” (convenience store) and non-Indigenous participants from Schefferville received a $25 e-transfer. In each First Nation community, two raffles were set up to draw prizes, one for the interview participants and one for the photo competition participants. The interview raffle included three prizes: first prize constituted 35 kg in dog food (estimated value at $200); second prize was 17 kg in dog food (estimated value at $100); the 3rd prize was dog treats (of an estimated value of $20). The photo competition raffle included one winner who received $100 of dog food. In both communities, the winning participant’s name was chosen out of a hat by a community member during a live radio broadcast on May 29, 2019. Additionally, each First Nation community received a dog cage (estimated value at $300) as a sign of appreciation for each having more than 14 people participate in interviews.

Sampling Methods

Participants were identified and selected through two sampling techniques: voluntary and snowball sampling. Voluntary sampling is a non-probability sampling method which consists of a self-selection process whereby posters or announcements were utilized to invite community members to contact the researchers for an interview (Alvi, 2016). While this method is

inexpensive, it limits the possible generalizations based on research results. Voluntary sampling increases the possibility that the results of the research are not representative due to the high possibility that initial respondents were likely to be the portion of the population most interested in the topic (Alvi, 2016).

Snowball sampling is a method in which "additional respondents are identified by information provided by the initial respondents" (Acharya et al. 2013, p. 333). Interviews with initial respondents helped identify members within the community implicated in the management of dogs or who have other experiences relevant to the research project. Snowball sampling methods have been used in qualitative research, specifically in the case of interview-based research where "some degree of trust is required to initiate contact" (Atkinson & Flint, 2001, p. 2). Snowball sampling has been identified as a key methodology when sampling within "marginalized societies [and] … where the researcher anticipates difficulties in creating a representative sample of the research population" (Cohen & Arieli, 2011, p. 427). The snowball sampling method permits the establishment of trust with the researchers through the recommendations of acquaintances (Atkinson & Flint, 2001; Cohen & Arieli, 2011, p. 427; Noy, 2006).

Several studies have singled out some limitations to the snowball sampling method such as bias in the selection of participants, chain referrals, and trust building (Atkinson & Flint, 2001; Cohen & Arieli, 2011; Noy, 2006). A bias is likely to occur in the selection of individuals "[b]ecause elements are not randomly drawn but are dependent on the subjective choices of the respondents first accessed" as well as through the identification of participants from previous interviewees leading to the possibility of missing "'isolates' who are not connected to any network that the researcher has tapped into" (Atkinson & Flint, 2001, p. 3; Cohen & Arieli, 2011). The snowball sampling method is often adopted when conducting research with vulnerable or hidden populations, and participants are harder to identify (Noy, 2006; Robinson, 2014). The third limitation to this sampling technique is the necessary establishment of trust, particularly when the target population has a history of negative research experiences. Studies have demonstrated "evidence of research fatigue, particularly amongst marginalized groups who have been subject to previous research" (Atkinson & Flint, 2001, p. 3). This showcases the importance of establishing

trust within the community as well as with initial respondents to ensure the continued voluntary participation from other members of the community. In spite of these limitations, a snowball-sampling methodology permitted this research to study the lived experiences of the Naskapi and Innu participants and locate "those on the ground who are needed to fill in the gaps in our knowledge on a variety of social contexts" (Atkinson & Flint, 2001, p. 3).

Gender

This research project made constant efforts to be gender-balanced and inclusive in the choice of participants in the interviews and photo contest. Gender balance and inclusivity gave Indigenous women, men, youth and elders the space to voice their perspectives, observations and specific concerns in relation to the roles of dogs and wellness. We hypothesize that the sexual division of labour in Indigenous communities determines the roles and responsibilities of women and men in relation to dogs, and consequently their knowledge. We also hypothesize that age may influence human-dog relations, given the important changes that have occurred in Indigenous communities (Absolon & Absolon-Winchester, 2016). Further, socio-spatial dynamics between people and dogs may differ according to gender, age and whether one is a dog keeper or not, and therefore it was essential that these factors be taken into account in the choice of research participants.

2.4 Data Analysis

Following the first field session, a preliminary analysis and interpretation of the data collected was completed in Montréal in the fall and winter of 2019/2020. Semi-structured interviews were conducted, and the data was analyzed using thematic, lexical and semantic analysis. Similarly, the photovoice methodology was analyzed with a combination of thematic and iconographic analysis. Finally, participatory mapping included an analysis at the individual and the community level.

2.4.1 Interview Coding and Analysis

The thematic analysis of semi-structured interviews focused on identifying themes and subthemes that emerged in the collected data (Aronson, 1994). The thematic analysis for this research includes both an inductive and a deductive approach to data coding. "Qualitative data

are collected and analyzed using qualitative techniques of coding and theme development; the data are reported qualitatively as themes, typically illustrated by extracts of data" (Braun et al., 2019, p. 847)

The analysis of the semi-structured interviews was completed with the use of semantic and lexical analysis. Much like thematic analysis, "Semantic units are defined by features of texts that involve human judgment" (Bauer, 2000, p. 9). The frequency of words used by participants was identified to highlight patterns in words used in the field when talking about dogs and their health impacts. "Semantics concerns the 'what is said in a text,' the themes and valuations. Words, sentences and larger text units are classified as examples of predefined themes and valuations" (Bauer, 2000, p. 5). In lexical analysis, "(t)he frequent co-occurrence of words within the same sentence or paragraph is taken to indicate associative meanings" (Bauer, 2000, p. 5). Through a lexical analysis, the frequency of the word was taken into account to identify the content to which the interviews refer the most (Freitas et al., 1998, p. 13).

A total of 32 interviews were conducted during the 2019 field session. After being transcribed from audio recordings, the interviews were coded using Nvivo 12 for Macintosh computers, a qualitative data analysis software with the ability to scan documents searching for keywords (QSR International, 2020). Codes were created to represent recurring themes in the interview transcriptions. Using the Nvivo "Text Query," 8 themes were examined to identify trends and differences, each of which were divided into subcategories, totalling 25 codes (see Appendix J). "Codes are the smallest units of analysis that capture interesting features of the data (potentially) relevant to the research question. Codes are the building blocks for themes (larger) patterns of meaning [which provide] a framework for organizing and reporting the researcher's analytic observations" (Clarke & Braun, 2016, p. 297). Nvivo permits centralization of interview data and highlights recurring themes shared by participants from both communities. This tool was instrumental in categorizing quotes from participants. The main results of this research were highlighted in the codes used to analyze the results.

2.4.2 Photovoice Analysis

For the photo analysis, a combination of thematic and iconographic analysis was used to examine the pictures and captions submitted by community members. As in the analysis of interview data, thematic analysis focused on recurring themes and differences in both the dog photos and their accompanying captions (Russinova et al., 2018). Thematic analysis of captions included the roles dogs play and words used to describe dogs. Iconographic analysis, devised from visual anthropology, was also used when studying photos (Fleming et al. 2009). This methodology focuses on the visual representation of dogs in the photos such as companion, protector, source of danger.

2.4.3 Analyzing Spatial Data

The spatial data gathered through participatory mapping focused on the perspective of community members in order to "employ, celebrate, reclaim, and analyze popular knowledge" of dogs in the community (Ozanne and Saatcioglu, 2008). This objective permitted the analysis of spatial data at an individual and community level to identify the frequency of which dogs were in different zones and their overall spatial distribution in the community. The first level of analysis was at the individual level and focused on identifying the areas in the community associated with dogs and the emotional impact these areas had on community members. This analysis also included frequency of zones identified by participants and the spatial distribution of these areas. Attention was also paid to the frequency of references of certain spaces by different participants. The second level of analysis was done by the superimposition of the maps drawn by informants, permitting a cross analysis of recurring themes. Maps were superimposed based on common characteristics such as communities and whether participants were dog keepers or non-dog keepers.

The analyzed data enabled the creation of a story map using Esri Story Map, while not open source, this software is "designed to improve communication and diffusion of the results of spatial analysis" (Caquard & Dimitrovas, 2017). Esri Story Map software permits the inclusion of "multimedia material, such as images, engravings, paintings, photos, postcards, maps, video, music, interviews, data, geospatial data, and so on" (Biondo, 2019). This software was also

selected as it permits the sharing of social spatial dynamics with research participants in a user-friendly way while at the same time respecting participant's anonymity and cultural safety when disseminating results (for a description of the Story Map see Chapter 5).

2.5 Results Dissemination

As described above, the participatory methodology of this research entails a co-analysis of research results with the local research team (steering committee and local coordinators) to ensure that the interpretation of results incorporates community voices and experiences. The original methodology included extended field visits to permit the facilitation of co-analysis and interpretation but also the identification of individuals interested in a co-writing articles to be published from the results of this research. A final visit to the communities will take place when sanitary measures permit safe in-person collaboration with the community members of Kawawachikamach and Matimekush-Lac John. The aim of this field visit is to consult with participants on the research findings and affirm their ownership and control over the data they provided.

The article included in this thesis (see Chapter 3) is submitted with an embargo, keeping the research results private and un-accessible to the public until a community consultation can be safely done. Given the uncertain time frame of this novel COVID 19 virus, we have chosen this solution to ensure that the current pandemic doesn't postpone my graduation and that the next phases of the IPDW project can continue, but most importantly, that nothing is published without community feedback and consultation.

In keeping with the conceptual frameworks guiding this research, we have chosen to create a protocol for the dissemination of the results gathered in the context of this master's research. Due to the global pandemic, returning to the community is an impossibility therefore the printed, visual, audio, video content as well as a letter of accountability will be sent to the communities involved in this research by mail. The research participants, band councils, steering committees and local coordinators will receive the research results in an accessible format, in both French and in English.

Chapitre 3 – [Wellness, Dogs and Their Keepers in two subarctic First Nation Communities]

Introduction

Western “pet-keeping patterns” are centred on having dogs that “are typically confined and their movements controlled by their owners” (Arluke & Atema, 2015, p. 4). These authors point out that “efforts in modern Western countries to dramatically reduce the numbers of roaming dogs have been largely successful (except in some dense urban or very rural environments)” (Arluke & Atema, 2015, p. 1). When such management methods are not followed, a narrative of a “dog crisis” emerges. This is the case in most Indigenous communities across the world, where “non-Indigenous visitors often assume the human—dog bond […] is weak, based on the poor health and free-roaming nature of the canine population” (Constable, Dixon & Dixon, 2010). This has also been seen throughout Canada, including in Northern Québec where dogs, free roaming and confined, living in Indigenous communities have continually been described in mainstream media as “Northern beauties” rescued from the streets of a remote northern community (Gillis, 2018a); or as “Dogs that have not been properly cared for [who] will find families who will love them for their entire lives” (Gillis, 2018b). (Figure 3)

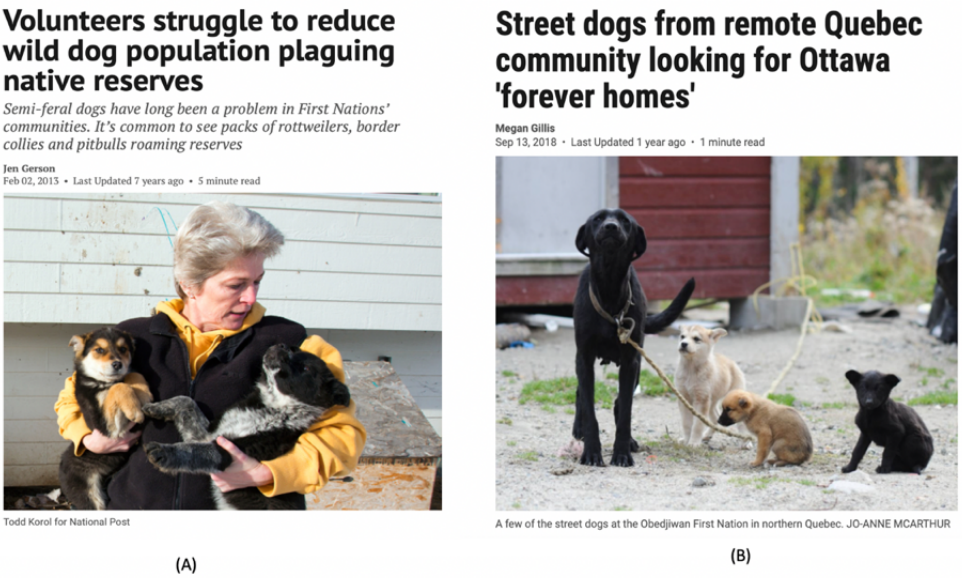


Figure 3. – Mainstream Media Narrative of Dogs (A) Gerson, 2013 (B) Gillis, 2018a

The imposition of western pet keeping patterns have been justified based on the ideology of controlling the "dog crisis". Stibbe (2001) "considers a link between discourse and society is Ideology and social cognition" (p. 26), much like Dijk (1997) who states ideology is "developed by dominant groups in order to reproduce and legitimate their domination". Today, Western ideology on pet keeping continues to be widely imposed through culling free roaming dogs, even though this method was found to be only a short-term solution given that "dog populations can recover from a 50 to 80% reduction in their numbers in 1 to 2 years" (Constable, Dixon & Dixon, 2010).

These management methods do "nothing to promote dog health and welfare, or community wellbeing. At worst, this management strategy poses community safety and animal welfare concerns and can have long-term psychological effects, especially for those who value dogs" (Schurer et al., 2015, p. 446). Previous research has shown that certain cultures "prioritized a completely different set of responsibilities for dog owners […] Unlike Western conceptions which hinge on claims to property, in these settings the idea of 'ownership' does not necessarily imply control […] dogs are […] seen as having their own communities, and as being part of the wider human community" (Degeling, 2018, p. 65).

There is a lack of research undertaken to understand how local community members position themselves in the face of the discourse of the "dog crisis," therefore the following research examines the roles of dogs and their keepers in two subarctic communities: the Naskapi Nation of Kawawachikamach and the Innu Nation of Matimekush-Lac-John (Figure 2, p. 35). Also explored are the impacts of dogs on the wellbeing of the population living in said communities and how keepers impact the wellbeing of dogs. The overall aim of this article is to call into question the current narratives in mainstream media surrounding the living conditions, health and wellbeing of dogs and their keepers in these two subarctic First Nation communities.

The following research is part of a One Health intervention, which has been defined "as a problem-solving concept combining research and public health action in an iterative process" at the human-animal-environment interface (Zinsstag, Waltner-Toews & Tanner, 2015, p. 18). Previous literature has put forth that "Indigenous worldviews and knowledge about health and

wellbeing preceded the evolving concept of One Health in veterinary and human medicine" (Montesanti & Thurston, 2016, p. 350). Other academics have gone further to highlight that while the "One Health paradigm is already embedded in Indigenous values, worldviews, and laws," it is often overlooked by policy-makers and scientists (Jack et al., 2020). It has also been described as a model that "is a benefit to opening conversations and building cross-cultural cooperation and dialogue. It is a step in reconciling worldviews" (Montesanti & Thurston, 2016, p. 353). However, it is crucial to take into account Indigenous views on health when dealing with zoonoses, for this reason, an Indigenous conception of wellbeing is found at the core of the conceptual framework of this research.

Methodology

Community-based participatory action research (CBPAR) was selected for this project because it allows the involvement of community partners such as dog keepers, vaccinators, etc. (de Leeuw and Hunt, 2017). This methodology facilitates building trust, particularly in how it favours mutually respectful and productive relations between the members of our research team and the communities with which we collaborate.

Twenty-six individual semi-structured in-person interviews were conducted with participants from the Naskapi community of Kawawachikamach and the Innu community of Matimekush- Lac-John. This method was chosen because of its ability to allow for a dialogue to take place between the researcher and the participants (DiCi Bloom & Crabtree, 2006). A photo-voice contest was carried out in both First Nations communities, with a total of 36 photos with captions submitted, representing what dogs means to their keepers as well as their importance and/or the roles they play. This method was chosen to identify and analyze the views, voices and stories of community members about their dogs (Palibroda et al., 2009).

The results of this paper stem from a thematic, lexical and semantic analysis of the interviews (Aronson, 1994; Freitas et al., 1998; Clarke & Braun, 2012) and a combination of thematic and iconographic analysis of photovoice (Fleming et al. 2009; Russinova et al., 2018) (For a detailed

description see Chapter two, section three, p. 38). The following section will present the results derived from these research methods, as well as the discussion of the results.

Results

While the roles of dogs have changed over the last 30 years (Tester, 2010; Riche, 2015; Mazzullo, 2018) this research found numerous ways in which dog are said to ensure the wellbeing of their keepers by providing protection and companionship. In return, keepers play an important role in the wellbeing of their dogs, not only through protection and companionship but also through tending.

1. Protection

The fundamental roles dogs play in ensuring the protection of their community was a recurring theme highlighted by participants from both First Nation communities, this, however, was not described as a new phenomenon. A Naskapi elder stressed the role of dogs in protection when travelling through a barren landscape. "*We had a dog yes. The only use we had of it is, it goes with me whenever I go camping, to chase away any animal that comes around, so it won't be around near the camp. That's the only use a person has of a dog*" (6A). Participants attributed protection to dogs due to their ability to communicate: "*Like my grandfather used to say, he was an alarm. And when he barked, it was a really loud bark*" (8A). Davydov and Klokov (2018) draw attention to the use of dogs as alarms by standing guard and barking when predators or other humans approached, an ability that was facilitated by their "fine sense of smell, and [their] sensitive [ity] to predators" (p. 56).

1.1 Dogs Provide Protection to Their Keepers

Much like their pre-sedentary roles, dogs today were found to continue to protect keepers from wildlife but have also adapted to new realities such as the presence of other dogs, fires, intruders, and self-harm. The results of this research highlight that dogs go beyond protecting their keepers to include protecting their keepers' families, friends, neighbours and property. « *[Si] quelqu'un*

touche au ski-doo [le chien] capote » *(5B).* Anecdotes were shared in which dogs protected their keepers from wildlife.

Wildlife and other dogs. Protection from wildlife was found to be an invaluable role associated to both tied and free-roaming dogs: "*[Here] they protect their communities pretty much. In the summer that's how we know, there is a bear around. […] even though they are tied up they still want to go, trying to tell someone here"* (13 A). It was also found that today, protection was extended from wildlife to include protection from other dogs in the community such as when one participant reported their dog protecting their youngest daughter from other dogs: "*Then [another dog] was running towards my little girl like walking beside us, and (my older daughter's) dog jumped over the sled trying to fight the other dog*" (2A). In both communities, dogs protected their keeper's children from other dogs: « L'autre y était protecteur [il ne laissait pas les autres chiens s'approcher] sauf le chien de mon voisin. Ils étaient vraiment amis » (3B).

New contemporary dangers. The effects of colonization have resulted in changes in lifestyle for both the Innu and Naskapi communities, creating new realities, experiences and dangers. With the sedentarisation of these communities, dogs have adapted to protecting people from new dangers in their environment, including those resulting from the intergenerational trauma of colonization, such as intoxicated community members whose behaviour may become a danger to themselves or others around them.

A participant shared an experience of their dog preventing a home fire and saving their life, by repeatedly barking and jumping on the bedroom door to wake up the keeper « *C'est mon garde du corps. […] Il me réveillait. J'ai vu le feu. Une chance qu'il fût là, parce que je dors profondément* » (10B). Participants also spoke of the ability of their dog to identify and attract their attention to warn them of the presence of inebriated and or threatening individuals. « *On dirait qu'il est capable de me le faire savoir s'il y a du monde qui en état d'ébriété ou qui ont pris de la drogue. Il jappe après »* (5B). This was also indicated by another participant who was warned by their dog of the presence of an uninvited intruder at the front door.

> *"And then my dog was growling outside, and I didn't lock the door. But this guy was known to [….] Assault women. Then I got up and I just thought, 'OK what is going on, because he*

> *never growled. As I tried to open the front door [the man's] hand was already on the knob, he was going to come in […] And I believe that [our dogs] knew that he wasn't a good person"* (5A).

Community members expressed not only the importance of being protected but also the emotional feeling of protection.

> *"I feel more protected, I feel like he hears everything. I really enjoy it. And I feel safer with him there"* (9A)
>
> « *Quand on s'en va dans le bois, c'est fun et rassurant d'avoir quelques chiens autour d'un chalet. Si un ours arrive, ce sont de sworn ennemies. Comme le loup et l'ours* » (12B).
>
> « *Je dors bien la nuit, personne ne dérange […] C'est mon garde du corps, depuis que mon garçon est parti. Ça fait 1 an que mon garçon est parti* » (10B).

Protecting their keepers from dangerous situations and individuals was not the only way they were shown to ensure protection, dogs were also reported to protect people from self-harm. The following quotation demonstrates the ability of dogs to attack attention when a person is in need.

> *"For me it's a big advantage because one time it was -50 out and my dog was in the basement and all of a sudden, he came running up very fast and he barked. And then he really wanted to go out, and I thought OK maybe he wants to pee. And he was so anxious to go out, so I opened the door and my son was drunk passed out outside. So, if it wasn't for [my dog], I would never have known that my son was sleeping outside"* (3A).

The dynamic and adaptive ability of dogs demonstrates not only the resilience of the relationship between dogs and their keepers, but also the ability of dogs to alter their roles in response to new realities and to communicate danger. They were found to have the ability to communicate but also the strength and determination to follow through with lifesaving actions.

> *"She said it was raining, raining hard and she just lay down on the ground. She thought she was just going to fall asleep. She didn't care. And then she said, someone was pulling her. And she thought, "OMG I'm going to die it's a bear or a wolf." She said someone grabs her here and actually pulled her and then she looked up and it was my dog. She got up and walked home. […] She said, "Your dog is so strong, he actually dragged me" (3A).*

The role of dogs stated above was found to be mutually beneficial, as it was not only the dogs that provided protection but also keepers were found to ensure the protection of their dog(s).

Similarly to the role of dogs, the keeper's role was found to extend beyond their own dogs to include other dogs in the communities.

1.2 Keepers Provide Protection to Their Dogs

The relationship between dogs and their keepers is mutually beneficial. Community members described protecting their dogs from dangers such as wildlife, other dogs, but also from environmental dangers. The keeper's actions, whether it is permitting their dog to be free roaming or tied up, or be it allowing their dog to sleep inside, on the porch or in a doghouse, were done to protect their dog from environmental dangers that they judged as impacting on the wellbeing of their dog.

Wildlife was also referred to as being a source of danger for dogs. A participant shared the story of their daughter protecting their puppy from a bear: "*She grabbed [our puppy] cause [it] wanted to run to the bear. She almost didn't have time to grab our dogs. And the bear would have probably killed our dog"* (13A). Numerous participants also highlighted protecting their dogs from other dogs in the community, primarily from situations where their dog was involved in a fight or attack. Methods used by participants to break up dog fights included driving a skidoo or 4-wheeler towards the dogs to scatter them, while other keepers drove off in their car inciting their dog to follow them away from the fight.

Informants made a high number of references to *environmental dangers* causing injury, illness, and death of dogs including extreme winter temperatures, summer insects, collisions with a vehicle (4 wheelers, skidoos, cars & trucks), and eating poisonous or non-edible substances. To ensure the wellbeing of their dogs who face harsh environmental conditions, some participants dogs slept primarily on the porch, in their doghouse or were allowed inside. Other keepers only allowed their dog inside under extreme weather conditions. « *Ben oui, il est tout le temps en dedans lui. L'été il va rester dehors, dépendamment des moustiques. […] Surtout à -40 l'hiver »* (1B). In certain cases, the keeper's explained that their dog preferred to live outside, or on the front porch, despite the keeper trying to lure the dog inside the house*. "He wouldn't go in, [even if you put] a treat there for him, like when we invite him in, but he doesn't want to"* (1A).

Numerous actions were taken by keepers to ensure the wellbeing of their dogs, including the choice of having them either tied up or free roaming. A tied-up dog limits their contact with dangerous situations, such as getting injured or killed by other dogs or vehicle. *« Avant, je les laissais aller, mais ils revenaient tout le temps avec une blessure ou malade. Donc je leur fais faire leurs besoins, mais sinon ils sont attachés »* (6B). Being tied up also prevents dogs from eating inedible products such as plastic, or poisonous substances leading to serious sickness and in certain cases death by asphyxiation. *« Ils ne se promènent pas sinon ils mangent n'importe quoi »* (6B).

Similarly, keepers who identified having a free-roaming dog were overwhelmingly aware of its impact on the wellbeing of their dog, including its ability to stay warm and fend for itself. Nonetheless, these participants reported tying up their free-roaming dog for their safety during certain circumstances: *"Yes, we tie her up every once in a while. […] When they're in heat, and when the dog catcher is here. Other than that, she is OK."* (13 A).

2. Companionship

Some participants described dogs as no longer having a role in today's communities other than being a companion: *« le rôle aujourd'hui, absolument rien. Personne aujourd'hui ne vit comme mon grand-père vivait. Aujourd'hui, les chiens comme j'ai à la maison c'est des chiens de compagnie »* (12B), and others identified companionship as a historical role. An Innu participant shared a story that was told by her great-aunt highlighting the use of dogs for companionship, especially when women were left at camp while the men went on hunting trips. *« L'importance de la culture. Premièrement, c'est très ancestral d'avoir des chiens dans la culture innu. Ils ont tout le temps été là » (5B).*

2.1 Dog provide companionship to their keepers

The role of companionship includes the dog's ability to provide friendship and mental support to their keepers: "For me it's comforting, like a friend" (5A); « C'est un compagnon. Quand je vais à la pêche, c'est quelqu'un qui est à côté de moi, qui va s'amuser dans le bois » (12B). Keepers reported their dogs as having the ability to sense their emotions, some went as far as to describe

their dog as being the only being who understands them well *"as if he was the only one who understood. And I think that's why I got so attached"* (5A). In both communities, participants highlighted the love their dogs gave them when they came home. *"Every time I opened the door, he's standing right there at the stairs to meet me there"* (8A); *« Les chiens de mon voisin une fois, les deux sautaient sur moi ! Très très contents quand ils m'ont vu. C'est ça que j'ai aimé. C'est collant »* (9B). The role of companionship was also demonstrated through the citations that accompanied the photos shared by participants, such as in Figure 4. In other cases, the photos submitted demonstrated the companionship role, such as Figure 5, where the three dogs are seen playing the role of a friend by sharing a snowmobile with their keeper and participating in activities.

Companionship provided by dogs was also shown through the characteristics keepers associated with their dogs, which resembled those used to describe a family member or friend, including both negative and positive characteristics. In both communities, dog keepers referred to their dogs as *babies*, both to describe their place in the family as well as their character. Other common descriptions included "*It's like an addition to the family*" (9A); *« Il fait partie de la famille. Il le sait »* (5B).

Descriptions of their dogs' characteristics ranged from description of behaviour: such as lazy, loyal, jealous, cuddly, protector, to descriptions of character such as scared, calm, happy, excited, smart. *« C'était un bon chien, il était très intelligent »* (13B). Sometimes the description given by participants included all dogs in general such as *« C'est fidèle, un chien »* (1B), while in certain case participants highlighted a quality specific to their dog: "*He's always exited*" (1A).

© Photo Credit: Shannon Uniam

"All winter and spring, we go (on) snowshoe walks. This summer and fall we will run. Utshemass keeps me active and healthy. He is my best friend."

© Photo credit: Rodrigue Mckenzie

"Preparing for the spring hunt"

Figure 4. – Photovoice by Shannon Uniam

Figure 5. – Photovoice by Rodrigue Mckenzie

2.2 Keepers provide companionship to their dogs.

Keepers also reported providing companionship to their dogs, primarily demonstrated through the love and cuddle given to them. Participants overwhelmingly stated that they pet their dog(s), with only a small minority stating that they never pet them. Of those that don't pet their dog(s), reasons included hygiene concerns, the large size of the dog or fear. Many keepers stated that their dog received cuddles from children, while others reported enjoying giving their dogs love:

"S*ometimes I'd sit at the back of the house, take the chain off and he would come and cuddle*" (8B).

3. Tending

Unlike the mutually beneficial role of protection and companionship, the role of tending is exclusively associated with dog keepers. Tending was found to have both historical and contemporary importance to the communities of Kawawachikamach and of Matimekush-Lac-John. This can be seen in the citation below which highlights the role of the keeper in ensuring the wellbeing of their dog through feeding, providing medical care and guardianship.

> *« Mes deux tantes et mon oncle, quand ils étaient dans le bois à chercher leur piège, ils ont trouvé le chien. Ils l'ont ramené dans leur tente. Ma tante a dit à son frère 'pourquoi tu là l'amené, tu n'es jamais là. On ne pourra pas prendre soin. Si la nourriture elle manque, on ne pourra pas le nourrir'[…] Parce que mon oncle partait seul dans le bois et laissait mes deux tantes seules. Ça va être votre gardian. Ils ont guéri le chien de ses blessures » (13B)*

The results of this study demonstrate that dog keepers continue to place importance on tending to their dogs by providing a and a healthy food source, medical care, and adequate guardianship during their absence.

3.1 Feeding

Interview participants discussed primarily feeding dogs either kibbles or scraps/ leftovers. In both cases, dog keepers explained their choice of dog food based on what they consider to be the best or healthiest option. In the case of both kibbles and scraps, participants hold strong beliefs on the "best food" for their dog(s) be it for their health or their physical appearance.

Participants highlighted that they avoid food known to be toxic to dogs such as bones, while others specified that it was only chicken or raw bones that they avoided. Chocolate and grapes were also identified by a few keepers as being toxic to dogs. Specific beliefs around food were also revealed and were said to be based on advice they had received from dog breeders or other people around them. This included the widely held belief that feeding their dog(s) human

scraps/leftovers was bad for them. In other cases, cheap kibbles or canned food was reported as being bad for dogs. Reasons for this included the potential of getting worms or of becoming unhealthy:

> *"I don't like to feed her because of the one, the one that gave me the puppies just told me the dos and don'ts. She said if you start feeding her left over, she would get worms and so I just stick with dog food"* (5A).

For some keepers, a dog's optimal health included more than the physical health of the dog, but also their beauty, such as having a soft and full coat of fur. A quality that was said to be affected by their diet:

> *"I don't want her eating leftovers, I want her to just eat dog food. Cause her fur grows better. I have seen dogs. Cause my uncle, he passed, but he had a couple of dogs before and he just feed them dogs' food, just dog food, dog food. All through their lives and they were nice dogs. Healthy"* (13A).

3.2 Medical care

Due to the community's geographical location, with the closest urban centre being a 12-hour train or airplane ride away, and the lack of local permanent veterinary facilities, many keepers reported having limited access to medical care for their dog which was signalled as problematic by interviewees. Due to these circumstances, keepers highlighted the importance of having partnerships with numerous actors to ensure the wellbeing of their dog(s). This included partnerships with local dog experts, urban veterinary centres and southern dog rescue organizations.

Veterinary service was not just found to be important in the case of injury or illness but also for the sterilization of young dogs and their yearly vaccinations. The local environment includes many dangers causing a high level of injured or sick dogs, but even basic care, including vaccines and sterilization prove complicated to access. Participants identified many actions taken to provide their dog(s)s with medical care when they are injured, sick, or giving birth. Keepers were found to use the products and resources at their disposal to heal their dog(s), such as giving them

particular food, water, blankets, and in some cases powdered Gastrolyte[6]. One participant recalled their dog asking to drink a bowl of caribou blood and subsequently recovering from a sickness that the keeper believed to be fatal:

> « Il ne bougeait plus. Il était faible. Il s'est décidé de se lever, il voulait quelque chose sur la table… En fin de compte, il voulait le bol de sang de la viande qui avait dégelé. Il a tout bu et s'est remis du virus » (1B).

The same keeper added a cross to the dog's collar for God to help him: *« Une croix dans son petit collier »* (1B). A high number of anecdotes were shared around the care given by the keeper to ensure their dog(s) made a successful recovery. When the medical treatment necessary surpassed the dog keeper's expertise, they often reported contacting veterinary clinics in the south. Veterinary clinics in urban centres such as Sept-Îles or Montréal offer services at a distance, including diagnostic through oral communication and pictures, with the possibility of sending prescriptions by mail. Some keepers reported developing personal relationships with veterinaries in the south to receive annual vaccines.

> *« Mon chien c'était un Labrador noir, il n'était pas attaché et se promenait. Quelqu'un l'a frappé et il avait beaucoup de blessures au bassin. On le traitait au Tylenol, ça n'a pas aidé. On l'a amené à la SPCA de Sept-Îles, j'ai beaucoup pleuré. Il est mort là-bas, il était trop blessé, il a fallu piquer »* (12B)

Other keepers who did not have access to veterinarians in urban centres were found to rely on local dog experts, local medical practitioners, or dog rescues. Local dog experts were identified as local residents who have a high level of knowledge on dog(s) and/or also access to veterinary or medical services and are willing to advise and help dog keepers in the community. Local dog experts were said to provide services including vaccinations, diagnosing minor injuries or illness, providing advice but also coordinating with dog rescues organizations when the veterinary needs of the dog was deemed greater than what local dog experts could provide.

Many keepers were found to access services through partnerships with dog rescue, who collaborate with these communities to set up temporary veterinary services. These services were

[6] "Gastrolyte is a range of oral rehydration products designed to help rehydrate and manage mild dehydration by replacing fluids and electrolytes in the body" (*Frequently Asked Questions*, 2020)

found to be highly used by community members, with very few participants reporting having taken their dog(s) to urban centres to receive sterilization services and/or vaccinations. Dog rescues were also reported to support dog keeper through fundraising to cover the expenses of sending a dog to receive medical treatment in the south.

3.3 Guardianship

Given the geographical isolation of both Kawawachikamach and Matimekush-Lac-John, participants reported needed to secure guardianship of their dogs, when they travel outside of the community. While some participants reported asking friends to stay at their house with their dogs, others had their dogs staying at their friend's house, asked neighbours to come by and feed their dogs, or simply really on the community to care for the dogs. In certain cases, a monetary compensation was offered by the dog keeper to the dog-sitter.

One participant revealed an inability to leave the community altogether as a result of the lack of options for their dog. While another participant reported the difficulty of finding a dog sitter due to their dog sleeping inside: *"If she was just a tied-up dog outside, I would just ask them to feed her. But my dog was such a brat I had to have someone literally stay at my apartment with her, and that was mostly impossible*" (11A).

The precautions taken by keepers to ensure a safe environment for their dog during their absence may be linked to previous negative situations participants reported experiencing with dog-sitting. The dog of participant 1A died while the keeper was away: *"I asked my cousin to keep her, she didn't feed her and she got sick then she died… I was gone for two weeks*." Similarly, participant 7A left the community for a year, leaving their dog with a neighbour, only to find out "*one day he was released. He was wandering around and the person was with my dog, but the dog didn't go to him because he wasn't me. Like he was afraid of that person. Maybe that person did something to my dog."* (7A). Participant 2B explained that upon their return to the community, they found their dog in bad shape, skinny and weak: *« L'autre fois, il était tout maigre. Ça m'a fait de quoi .»* While participant 8B recalled her dog being taken away under the belief that it was injured by a non-Indigenous member of the community while she was in the south for school: *« Quand ils*

m'ont annoncé ça, je me sentais vraiment mal. C'est quand on perd quelque chose qu'on se rend compte qu'on aurait dû faire des affaires, tu sais » (8B).

While tending was found to be a role reserved for Keeper's, the agency attributed to dogs permit them to communicate their needs to their keepers and other community members. For example, dog(s) were reported to visit numerous households to receive the companionship they so desired: *« C'est un gros bébé, il a toujours eu ça des câlins […] et de toute façon, sans ça il va trouver moyen de s'en faire donner des câlins »* (1B). Other participants stated that their dog "knocked on the window [or the door] when he's hungry" (7B). The ability of dogs to communicate their needs was also seen through their actions when they were injured; *« Il suivait mon mari en voulant dire 'je suis blessé' »* (11B). Other dogs reportedly had the agency to seek shelter from other humans while their keepers were out of town, *«* Des fois on le fait rentrer quand il fait froid. Cet hiver il était plus chez Maurice […] C'est pour ça qu'il fait des vas et viens *»* (2B).

Discussion

The mainstream Western media narrative associated with Northern dogs creates a negative perception of the human-dog relations within Indigenous communities. Outsiders' views fail to take into account the roles dogs play and undermine the care and importance placed on dogs by their human keepers, families and communities. Western and Indigenous worldviews concerning the natural environment and animal agency contradict each other (Loo, 2011); it is therefore necessary that Indigenous perspectives be valued and well understood when examining human-dog relations in said communities. For this reason, the results of this study are discussed in the light of Indigenous holistic understanding of wellbeing which goes beyond individualist conceptions (physical, emotion, spiritual and mental health) to include the wellbeing of the whole community (further description in Chapter 1, p. 26).

The results of this study are consistent with those of other studies on the long-standing and important role of dogs in Indigenous communities (Tester, 2010; Riche, 2015; Mazzullo, 2018), rooted in a traditional worldview in which respect for animals as kin is vital for survival and wellbeing (Montesanti & Thurston, 2016). Our results showed the reciprocal role of keepers and dogs, in which they care for each other through offering *protection* and *companionship*. However,

this research went further to identify the additional roles reserved for keepers, including to *tend* to their dogs. From the point of view of the community, a lack of care is linked to aggressive and/or dangerous dogs; therefore, these roles are seen as essential in ensuring the wellbeing of the overall community. Based on the results described above, three factors were found to impact the human-dog relations in the Indigenous communities under study: (1) dog's natural capacity to communicate and enact agency impact community wellbeing; (2) keeper's decisions on how to care for their dog takes into account the repercussions on community wellbeing; and (3) the ability to provide care to dogs is dependent on the keeper's networks (quality and quantity of care a dog have access to).

The role of protection and companionship dog's play shows their natural qualities to communicate and attract attention to danger, however, as we have seen above, they also have the ability to take action to ensure the wellbeing of their keeper, family, loved ones, and communities. This concords with Davydov and Klokov (2018) who also note the importance of the ability of dogs to communicate with their keepers and learn from their surroundings. Davydov and Klokov (2018) note that dogs are believed to receive their skills from nature and by observing other dogs. In other Nordic Indigenous communities, it was common practice for an older, more experienced dog, to be taken out with yearlings to teach them tracking and learn other skills (Oehler, 2018).

Recent evidence shows the importance of dog sharing between hunters in the training and development of Soiot hunting dogs, who were not restricted to only hunt with their keepers; on the contrary they were also permitted to join other hunters (Oehler, 2018). Dogs were seen as increasing "their skills no matter who took them to the forest" (Oehler, 2018, p. 33). They were awarded a degree of autonomy and agency which permitted them to "opportunistically decide which household to join in the hunt" (Oehler, 2018, p.). Oehler's (2018) results coincide with the descriptions shared by our participants, who described dog agency as integral to community wellbeing. Dogs not only have the natural qualities to play these roles but they also have the capacity to take concrete action to fulfill their roles.

The results showed that dog has learnt to adapt their natural qualities to contemporary realities and new dangers, such as their ability to identify intoxication. The adaptation to contemporary realities is also identified by Mazzullo (2018), who point to the ability of dogs to develop skills when working in collaboration with humans and their machines. This includes the new ability of dogs to balance and jump off moving snowmobiles to catch up with stray reindeer (Mazzullo, 2018).

Participants, both keepers and non-keepers, identified aggressive dog behaviour as risky for community members, and they attributed this behaviour to a lack of care (protection, community & tending). As opposed to what the mainstream media narrative has shown, community members demonstrate being extremely aware of the potential impact of their dogs on the wellbeing of their communities. Keepers reported that they do their part to ensure the wellbeing of their community and dogs, by listening to them and proving them with the care they request, but also adapting their action in response to their dog's behaviour. Each keeper was found to have their own ways and reasons for the choices they made concerning their dog's care. As shown in the results, some keepers identified actions such as choosing to tie their dog up to prevent them from creating conflict, while other participants reported caring for community dogs.

The result of this study proved dogs to be considered a danger when they don't receive adequate protection, companionship and tending from their keepers or communities. However the caring of dog is met with certain limits. The ability of keepers to provide and access different services and resources for their dog(s) was found to impact the overall quality and quantity of care their dogs receive. A keeper with a network providing them a frequent access to southern urban centres permitted a better-quality and cheaper dog food. The local price and quality of dog food are impacted by the geographical location of these two First Nations and their limited accessibility to urban centres. Certain keepers shared the importance for them to provide their dogs with a particular brand of dog food or treats unavailable locally. Our results concords with those found in the Sahtu Settlement areas of the Northwest Territories who found "dog diets varied amongst communities [with some communities] feeding proportionally less commercial dog food than the other communities" (Baker et al., 2020, p. 3). Our results on feeding trends share similarities with Aenishaenslin et al.'s (2019) findings which identified the dog food used by Inuit keeper as kibbles,

scraps, or country food. Although our results differ slightly with very few participants reporting feeding their dogs country food due to the lack of local access.

The network of the keeper was also found to impact their dogs accessibility to medical care. While certain keepers were found to have regular access (yearly, in person or virtually) to veterinarians in urban centres, others were found to rely solely on a local dog expert to receive treatment for their dogs. Some keepers have established partnerships with veterinary clinics, local dog experts, or in some cases, even dog rescue organizations on which they can rely on when their dogs are in need of medical care. Baker et al., (2020) highlights the lack of "subsidized veterinary programs […] in rural and remote areas" (p. 2) . Similarly to Kawawachikamach and Matimekush-Lac-John, Baker et al., (2020) also point to the all too common practice of having temporary local veterinary services "every few years, which limits the short-term efficacy and long-term benefits of these programs on dogs and communities" (p. 2). The results of this study suggest that implementing a similar long-term "community-driven animal health and management program" will improve dog health in these remote communities (Riley, 2020, p. 2).

The ability of certain keepers to take their dogs with them when they leave the community was also found to be impacted by their network. Due to the isolated location of these communities, the financial and logistical costs associated with dog travel are extremely high, limiting certain keepers from travelling outside of their community altogether, while others were found to have the ability to take their dogs with them. Depending on their networks, keepers were found to travel with and without their dogs to other provinces, urban centres, and hunting camps for both short-term and long-term periods. The increasing cost of travelling from geographically isolated communities is a phenomenon experienced by many Arctic and sub-Arctic communities. As environmental conditions are impacted by climate change, Indigenous peoples travelling for long distances are now required to pack more provisions, much like Durkalec et al., (2015) revelled "the significant expense of travelling on the ice, including the cost of gas, lubricants, food, bullets, and the basic costs of snowmobile purchase and maintenance" (p. 22).

Conclusion

Few solutions for dog management implemented in the North have addressed the holistic perspective of Indigenous peoples, a concept integral to the conception of wellbeing (Mundel & Chapman, 2010; Lévesque, 2018a). This research sought to examine the relations families have with their dogs, to inform culturally appropriate solutions to the overpopulation of dogs that are specific to the context of the Naskapi and Innu Nation. We aim to question the social construction of the ways in which we think of dogs in the north, which does not necessarily reflect the multidimensional relations between Indigenous keepers and their dogs, notably by omitting the role that they both play in ensuring each other's daily wellbeing. We strive to go beyond the western conception of pet keeping, by acknowledging the role of dogs in ensuring the wellbeing of the communities, both through the keeper's actions and by recognizing dogs as living beings with agency that belong to the families, communities, and are part of their ecosystem. This research engages in improving the health and wellness of the Naskapi & Innu population living in Northern Québec, not only through identifying dog-associated health risks, but also through supporting the role of dogs in health and wellness in this Northern community.

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Chapitre 4 – [Limitations]

This research project has potential limitations to be considered, nevertheless, we believe our work could be an example for further projects on culturally appropriate analysis of the human dog interface. The first limitation lies in the positioning of the researcher as an outsider, the second is the geographical isolation of the communities under study, the third are related to the data collection process, and the fourth, the Covid 19 pandemic.

4.1 Geographical locations of the communities: subactic of quebec

As stated in the study site description (Chapter 2, p. 33), the community of Kawawachikamach and Matimekush-Lac-John are located in the subarctic of Québec and are only accessible by train or by plane. To overcome the geographical isolation of these communities, the field work took place over a six-week period, during which the researcher resided in the neighbouring community of Schefferville. The extended fieldwork period created the possibility to adapt and validate the methodology with the steering community and the local coordinators prior to the start of data collection.

Given the geography location, the Naskapi and Innu languages are widly spoken in the communities. To prevail over the language barrier, the masters research student took an introductory Innu course at Native Montréal, a language which presents important linguistic similarities to Naskapi. During the pre-fieldwork in 2018, the research team observed the ability of the Naskapi and Innu populations to speak and understand each other despite speaking different languages. Additionally, the research team hired a local translator to accompany them during interviews with Elders, but also to translate and transcribe Innu and Naskapi interview recordings.

4.2 Impacts on the data collection process

During the first week of the field session, a temporary sterilization clinic took place in the communities under study (see Appendix K). This event impacted data collection as seen through the high number of references to this event during interviews and participatory mapping.

Community members explained that these sterilization clinics changed the socio-human dog dynamic in the communities. For example, by decreasing the free-roaming dog population (dogs were shipped to dog rescue organizations in the South) but also led to many keepers hiding their dogs to avoid their being taken.

Given the small sample size and the specificity of this case study, caution must be exercised in generalizing results. The findings are not transferable to or representative of other Indigenous communities. This limitation is addressed by the larger research project, IPDW, that is being carried out in six other Northern communities, allowing each research team to work with a specific nations and communities to ensure that the local and cultural context are taken into account when analyzing the health impacts of free-roaming dogs.

4.3 Global Pandemic

The fourth and most significant limitation was the inability to complete the research as was originally planned. The global pandemic of COVID-19 created a need to indefinitely postpone the final field visit, which had been planned for May 2020. This session had the objective of using my theoretical framework to guide a collaborative process of co-analysis and dissemination of the results. Since my master's research took place in the subarctic of Québec, travelling to the community is extremely complicated as is virtual communication due to unstable internet connection.

Although the 2020 spring field visit was cancelled due to safety and health concerns for the communities under study, the Montréal University research team continued to advance on the research project from a distance. The methods used for co-analysis and co-interpretation of the results were revised and were planned to be done virtually with community members. However, this prove to be an imposibility, instead the research results will be sent to the communities involved via mail (described in detail in chapter 2.4). Given the inability to validate my findings with participating communities at this time, this thesis will be publishing with an embargo until a community consultation is safely possible.

4.4 Position of the Researcher

Disputaly the most impotant limitation is that the researcher does not belong to or come from the local communities involved in the study and therefore, has differing worldviews and cultural perspectives. To mediate the impact of this limitation, the research team included local Naskapi and Innu co-researchers. Furthermore, the research project was guided by a steering committee composed of active community members. This collaboration permitted the research to remain culturally appropriate to the Naskapi and Innu contexts.

In addition, to overcome these personal limitations, the masters research student undertook an extensive literature review of the colonial past of each First Nation community, to have a good understanding of the local context of each community. It was important to highlight the diversity of the two-First Nations who collborated in this research, Naskapi Nation of Kawawachikamach and Innu Nation of Matimekush- Lac-John, as well as educating myself on their very real and different colonial experiences.

The master research student undertook personal theory and self-situating reflextion to explore her relationsip to the research she undertook. The purpose as described by Elizabeth Fast is to identify areas in which our personal theory enhance or limits our research process. This reflextion was done to create space for “critical explorations”, and has been included as a postface to this thesis (Fast, 2020).

Chapitre 5 – [Output of Action Research]

The results of the CBPAR project provide a portrait of the complexity of human dog relations which could potentially contribute to identifying community interventions to improve human dog relations within the Naskapi Nation of Kawawachikamach, the Innu Nation of Matimekush-Lac-John and the municipaly of Shefferville. The research methodology and conceptual frameworks permitted relationship building between the research team and local communities. These frameworks guided the creation of two outputs for the communities involved: a community dog calendar and a StoryMap.

During the six-week field session, I developed friendships with community members from both Matimekush and Kawawachikamach. The local Innu radio station and other social areas in Matimekush, such as the local restaurant, were used to start conversations with community members, answer questions, build trust and eventually develop friendships. Similarly, spending time at the band office, the NDC (Naskapi Development Corporation), and the local restaurant at the hockey arena, provided me with the chance to meet community members and develop relationships. During Goose break, I had the good fortune of being invited on several days trip to local Innu and Naskapi hunting camps to experience life out on the land (see Appendix L).

I spoke with and learnt from Elders from both First Nation communities. In one instance, a couple invited me to sit in their dining room and shared their life stories with me, including their residential school experiences and encounters with unethical researchers. These conversations were kept private and are not part of the research presented above; however, they gave me the opportunity to learn from their experiences and be more aware of the troubled historical relations between the academic research world and Indigenous communities.

My relations with the communities did not end with my departure from the North. I continued to stay in contact with individuals via Facebook. I was able to volunteer to assist/support the Naskapi delegation when they came to Montreal for the First Peoples Festival in August 2019. This included everything from ensuring that they had all the material they required for their kiosk to getting them drinks. I was also able to reaffirm certain bonds during this reunion and develop

new friendships. These personal relations develop in the context of this research speaks to the importance of interpersonal relations when working with participatory research with Indigenous communities.

Following discussions with Chiefs and Councils, steering committees and local coordinators the research team created a calendar featuring the photos and accompanying captions from the photovoice contest for each First Nation community. The calendar templates were designed and developed by an Indigenous graphic designer, Leilani Shaw, who is Kanien'kehá:ka from Kahnawá:ke Mohawk Territory. Leilani Shaw sills and expertise permitted the research team to produce a calendar with a professional level of quality. The calendar was done in collaboration with the steering committees of both communities, who recommended including the days of the week and the months in their own native languages (Innu and Naskapi) as well as the colonial languages used in each community (English and French).

The community dog calendar also included veterinary medical information on the care of dogs co-developed with Guillaume Theberge from the Faculty of Veterinary Medicine at the Université de Montréal and was based on both the experiences and the requests made by interview participants. The medical information included the symptoms of worms, ear and eye infections, suggestions on how to treat constipation and diarrhea, as well as when to seek and how to access veterinary services for their dogs. Other information included suggestions on how to tend to dogs, such as grooming tips (giving a dog a bath, washing their ears, what to do if their dogs are sprayed by a skunk) and the different variables to take into account when feeding a dog (such as age, the seasons (summer or winter) and toxic foods to avoid).

Community-based participatory action research not only requires co-constructing the research protocol and data collection methodology, but also participation in data analysis and dissemination of results. For this reason, the research team planned to co-analysis and interpret the results with community members by creating space to obtain feedback from the public (community consultation meetings, radio announcements). The final results were also to be presented in plain language to the communities in the form of oral presentations, posters, and radio announcements. Given the uncertain timeframe of the COVID 19 virus, the research team

adapted planned methods through creating an online platform to share research results with community members from a distance.

The research team chooses to create a Story Map to potentially disseminate research results to community members virtually. A pilot version of the Story map was created for the submission of this thesis, but since the research project is ongoing, the story map will be continuously updated. The Story Map currently includes the context of the research, the research objectives, research results identified in Chapter 3 (stemming from interviews and photovoice data). The pilot Story Map also presents the preliminary results of the participatory mapping, stemming from the spatial data collected in two communities (Matimekush and Schefferville). The Photovoice data presented in the calendars was also been added to the Story Map in the shape of a Photo Gallery. The multimedias included in the Story Map were videos and pictures taken by the research team during the 2018 and 2019 field sessions. Contingent on permission from interview participants, this platform will highlight portions of interview audio recordings to share participant's oral stories, traditional knowledge such as an oral legend of the origins of human dog relations told by an Elder. [7] This pilot story map will be used to inspire the final version of the story map which will be completed with community members to ensure that it accurately represents the community's values and worldviews. The final version will be translated into four languages (Innu, Naskapi, English and French).

[7] The StoryMap contains video and audio, available upon request.

Chapitre 6 – [Conclusion]

The assimilation of Indigenous peoples into Canadian settler society contributed to the destruction of Indigenous cultures, languages, customs and practices and was achieved primarily through the implementation of the Indian Act (Hurley & Gordon, 2009; Lavallee & Poole, 2009; Absolon & Absolon-Winchester, 2016). Forced settlement separated communities from ancestral lands to which they have a deep spiritual and cultural connection (Durkalec, Furgal, Skinner, & Sheldon, 2015). Western dog management ideologies and methods continue to be imposed on Northern Indigenous communities, nevertheless, in recent years, concerns have arisen calling into question their validity (Lévesque, 2018a).

Our literature review has demonstrated that despite the overwhelming amount of research on the role of dogs in Northern communities, research in Canada has predominantly focused on the relations between the Inuit and their dogs. This research aims to fill the knowledge gap by investigating the interrelations between the populations living in and around Schefferville and their dogs, to create a wholistic and Indigenous understanding of the issues surrounding dogs, including health risks, stray dogs and dog overpopulation. More specifically, this masters research project sought to answer what are the interrelations between people and what effects do they have on the wellbeing of the populations living in these communities. To answer this question, I pursued two specific research objectives. The first objective was to analysis the socio-cultural interrelations between humans and dogs in Kawawachikamach, Matimekush-Lac-John and Schefferville. The second objective was to explore the socio-spatial dynamics between humans, dogs, and wildlife, which are identified as a source of transmission for zoonoses.

The study found opposing views between people within the communities studied in terms of how best to care for dogs, but overall, the research demonstrates that keeper's choice of methods when protecting, providing companionship or tending to their dogs are done with the aim of ensuring the wellbeing and safety of their dog(s). The study also permitted an understanding of the important role and place of dogs in the Naskapi Nation and the Innu Nation. The results of this research could be used to inform culturally appropriate solutions to issues such as dog

overpopulation that are context specific to Kawawachikamach and Matimekush-Lac-John. This research project aims to contribute to improving the health and wellbeing of the Naskapi, Innu and non-Native populations of Northern Quebec by identifying the roles associated with dogs and by examining how dogs' impact on the wellbeing of these northern communities. Further research on dogs and their keepers in Indigenous communities should include decolonial and participatory methodology to ensure community experiences, perceptions and observations are accurately represented. A CBPAR approach would also permit research teams to create deeper and more meaningful relations with Indigenous community members.

Postface

The research methodology that I choose to use for carrying out my Master's research derives from the lessons that I have learned while carrying out my bachelor's and master's degrees but also from my personal values and identify. My master research journey led me to understand the importance of creating space for putting forth local experiences, perspectives and observations, fundamental to decolonizing my research. Throughout the three years I dedicated to this master's research project, I learnt from both Indigenous and non-indigenous scholars, academics, community leaders, and most importantly, youth.

The Bureau de Coopération Interuniversitaire provided me with the opportunity to take the "Indigenous and decolonizing methodologies and pedagogy" course taught by Elizabeth Fast at Concordia University. This course not only permitted me to learn about …. from Professor Fast, but also from other Indigenous students in the course. An important part of the decolonial framework is to recognize people as experts of their own experiences and realities. I had the chance to discuss this topic in depth with Indigenous youth who are part of the "Comité aviseur jeunesse autochtone" which is responsible for advising and guiding the research processes of the "Chaire Réseau Jeunesse sur la jeunesse du Québec." The youth group developed a tool highlighting the principles and values necessary when decolonizing research (see Appendix N). This tool was a source of inspiration for my community-based participatory research methodology described above and includes the recognition of Indigenous knowledge, the responsibilities of researchers, values to take into consideration and unacceptable behaviour and actions.

Mikana, an Indigenous-led organization, has given me the opportunity to participate in creating systemic changes within Western educational institutions such as Ahuntsic College. This organization has permitted me to work with and develop relationships with the urban Indigenous community of Montréal but has also given me a way to give back. I developed my knowledge and understanding of decolonial research, not only from my work at Mikana but also from my colleagues at the Indigenous Network of Montréal (also known as the NETWORK). These opportunities taught me the importance of listening to local Indigenous voices and of recognizing

the work done by Indigenous organizations and the individuals working within them. Of particular importance was the collaborative guide create by the NETWORK and their partners entitled Indigenous Community Research Protocol (A Guide to Respectfully Engage With Indigenous Research, unpublished, to be completed in 2021).

The biggest personal limitation I came across was with my own Indigenous identity and my legitimacy of doing this research as a guest on the territory, today known as Québec. Since claiming my Metis heritage, I have fought internal sentiments of fraud. My lived experiences have equipped me to be open to other cultures, but this has also made it difficult for me to identify with a culture from which I am disconnected. The projects I am involved with have led me to question my own identity and created a need to know more about my family and culture. Being a Metis youth disconnected from my territory, it was important for me to find a research project which had been identified by members of First Nations as relevant and needed.

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Appendix A- IPDW One Pager

The Indigenous peoples the project's ultimate goal is cx health risks and by supporting the role of dogs in health and wellness in these Northern communities. The Inuit, Naskapi, Innu, Cree and Western knowledges and perspectives on health and on dogs will be mobilized during the course of the project as they are essential in contributing to a comprehensive understanding of the health effects at the human-dogs interface in the Northern communities. These knowledges will inform the most successful, sustainable, socially and culturally-accepted, community-based measures to protect human health and support human wellness while raising the positive impacts of dogs on humans.

Following each community acceptation, the project is planned to take place in Kuujjuaq, Kuujjuaraapik/ Whapmagoostui, the Naskapi Nation of Kawawachikamach and Iqaluit (or another community in Nunavut).

Research Team, Collaborators and Support were the following at the submission of the proposal (2017) and we are looking for more collaborators for this project to be successful in all targeted communities.

Université de Montréal: André Ravel, Audrey Simon, Cécile Aenishaenslin, Christopher Fernandez- Prada, Denise Bélanger, Patrick Leighton,
Université de Limoges: Laine Chanteloup
Guelph University: Sherilee Harper

Université du Québec en Abitibic Temiscamingue: Francis Lévesque Université du Québec à Montréal: Johanne Saint-Charles
Nunavik Research Center: Ellen Avard, Director
Kativik Regional Government: Michael Barrett, Elise Rioux-Paquette Nunavik Regional Public Health Board: Dre Marie Rochette Kuujjuaraapik: Pierre Roussel, NV Secretary

Naskapi Nation: Jessica Mitchell, Health coordinator
Nunavut Department of Health: Dr Kim Barker, Chief Medical Officer of Health Iqaluit Humane Society: Jannelle Kennedy, President

* Please notes the list of Research Teams, Collaborators and Supportters is out of dates.

Appendix B - Community Support Letters

Naskapi Nation of Kawawachikamach

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NASKAPI NATION OF
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October 14, 2016

Andre Ravel, DMV, PhD
Associate Professor
Faculte de medicine veterinaire
Universite de Montreal
3200 rue Sicotte C.P. 5000
Saint-Hyacinthe, QC J2S 7C6

Subject: Collaboration with Associate Professor Andre Ravel's Research Project

Dear Sir,

This letter represents our support and collaboration on the Research Project spear-headed by Associate Professor Andre Ravel in the project entitled: "Mitigating Illness and Raising Wellness at the Human-Dog Interface in Northern Canada".

I am currently the Health Coordinator of the Naskapi Nation of Kawawachikamach. As Health Coordinator, I am responsible for managing all of the community's Wellness Programming and staff including the creation of prevention and awareness activities with regards to Health in the community. This work also includes the transferral of knowledge of traditional views of health. I have been working closely with this community for the past 15 years. I approximate to spend on average 1-2 hours per week on this project which is equivalent to a $3600.00 in kind contribution from the Naskapi Nation of Kawawachikamach.

This project is of great importance to our community.

Thank you for your understanding.

Sincerely,

[redacted]

Jessica Mitchell, MSW
Health Coordinator
Naskapi Nation of Kawawachikamach
P.O. Box 5111
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c.c. Chief and Council
Mr. Curtis Tootoosis, Director General
Mr. Paul Renzoni, Atmacinta

Innu Nation of Matimekush-Lac-John

CONSEIL
DE LA NATION INNU
MATIMEKUSH-LAC JOHN

Matimekush Lac John, 1 mai 2019

À qui de droit

Par la présente, nous vous informons que le Conseil de la Nation Innu Matimekush Lac John est favorable au projet Indigenous People, Dogs and Well (IPDW).

Au plaisir de vous accueillir dans notre communauté.

Gilles Larouche, Directeur général

Conseil de la Nation Innu, Matimekush Lac John, 170 Pearce Lake, Schefferville QC, G0G 2T0
Tél. : 1 844 413 3220 Fax : 418 585 3856
www.matimekush.com

Appendix C - Interview Guide

Interview guide were adapt for the each community, as well as being translated in French and English.

Interview Guide- Kawawachikamach

Pet demographic data

1. How many dogs do you have?

   Please indicate for each of your dogs: age, sex, origin,

   How it was obtained,

   What type of dogs and why/ for what purpose? (ex: house dogs, hunting dogs, working dogs, pets)?

3. Have any of your **dogs died** during the last year?

   Yes/no. If yes, please indicate: age, sex, and cause.

4. Have you **given away** dogs during the last year?

   Yes/no. If yes, please indicate: age, sex, and motivation.

5. Have you **lost** any dogs during the last year?

   Yes/no. If yes, please indicate: for how long and possible explanation.

6. Would you prefer to have:

   a) fewer dogs

   b) more dogs

   c) or the same as you have?

   d) please indicate why.

Pet care

1. Are your dogs **spayed /neutered?** If no, why not?
2. Are your dogs **vaccinated** against rabies?

   If yes, when was the last time?

3. What do you mainly **feed your dogs?** What type of food?
4. Is there anything you **wouldn't feed** your dog?
5. Do you feed street dogs?

Yes/no. If yes, please indicate: how many, what kind of food, place, and motivation.

6. Do you train your dog?

   If so, for what? How do you train your dog?

7. What objects (leash, games, dog house, etc.) do you have in your house/around your house for your dog to use?

8. Do give your dog baths?

9. Do you tie up or leash your dog?

   Yes/no. If yes, at day and/or at night?

   Where do you keep your dogs in winter? Is it different during other seasons?

   Are they affected by horse flies?

10. If they would be a dog pound in the community, would you use it?

Attitudes

1. What is your relationship with your dog? (always, sometimes, never)
   a. I am happier because of my dog.
   b. My dog is allowed in my house.
   c. I have a leash outside for my dog.
   d. My dog is part of my family.
   e. My dog keeps me active.

2. Tell us the main character that would best describe your dog? Give us an example.
3. Do you consider that there are advantages to having dogs?

   Yes/no. If yes, what are they

4. Do you consider that there are disadvantages to having dogs?

   Yes/no. If yes, what are they?

5. Do you cuddle with your dog?

   If so, when? Where? How? If not, what do you think about people cuddling dogs?

6. What is the **most positive moment** you lived with your dogs?
7. What was **the worst moment** you lived with your dogs?
8. Have you e**ver been bitten** by your dog or by another dog?

   If yes, when, why and what have you done with your injuries? With the dog?

10. How do you **feel about street dogs** in the community? (always, sometimes, never)

a. Street dogs enjoy their freedom.
b. Street dogs are dangerous
c. Most street dogs do not have an owner.
d. Streets dogs protect the houses.
e. Street dogs without owners
f. Street dogs feed themselves;
g. Street dogs scare me;
h. Leashed dogs are bitten by insects.
i. Dogs exercise outside in the streets.

11. Do you consider **some dogs to be more dangerous** than other in the community?
12. Do you observed **dog packs**? Is there specific moment of the day or the year you can see some? what do you think of it?
13. What about **dogs from south**? Why?
14. Do you have cats?
15. What would be acceptable to do to reduce the number of street dogs?

Cultural role of dogs:

1. What role do dogs play in Naskapi culture?
2. Can you share a traditional Naskapi legend where there is a dog in it?
3. Do you know a songs/ throat singing where dogs play a role?
   Which one? Why? How?

Personal experiences – mapping

1. Where does your dog live? Why?
2. If you are going out with your dog where do you take it?
3. Do loose dogs in town cause problems?
   Yes/no. If yes, which ones (up to three) and where?
4. Are there areas in town you are afraid to go because of dogs?
   Where? Why?
5. Do you believe that elders avoid some areas in town because of dog packs?
   What about your kids?
6. Have you seen street dog puppies?
   Yes/no. If yes, please indicate: How many, age, when, and where.

7. Which places in town do packs of street dogs spend time?
8. What do street dogs eat and where?
9. Have you seen dogs outside the town during the last year?
    - Yes/no. If yes, how many and where?
    - Please show on the map. Where do these dogs come from?
10. Have you observed any problematic situations caused by dogs outside town?
    - Yes/no. If yes, which, when, and where?
    - Where do these dogs come from?
    - Are these res dogs?
    - Are these wild dogs?
    - What is the difference between rez (stray) dogs and wild dogs?
11. Have you ever encountered a fox, wolf, lynx, bear, rabbit nearby/in town?

    Yes/no. If yes, when and where and how many?

Personal data

1. Gender
2. Age group
3. Do you permanently live in Kawawachikamach?
4. How many years have you lived here?
5. How many persons live in your household? No. of adults, no. of children.

Photo

1. Can you share your favourite picture of your dog(s)?
2. Why did you chose this picture?

Appendix D – Community Annoucements

Poster for the Naskapi community of Kawawachikamach

Poster for the Innu community of Matimekush-Lac-John

Local Radio call out (script)

Hello, Wachiia

My name is Elisa, Im a researchers on the dog project with the University of Montreal.

Im here with Kabimbetas, we will be working on people-dog relationships in Kawawa.

We are organizing a photo contest, and we invite everyone who is interested to submit a picture of dogs in Kawawa with a little comment. All the pictures will be used to create a community calendar for 2020, and one person will win a raffle for 100$ worth of dog food!

We will also be doing interviews, if you want to talk to us about dogs in Kawawa you can contact Kabimbetas and me at the band office, and every participant will receive 25$ and will have a chance to win another raffle with three prizes.

Otherwise, you will certainly see us around the community.

I look forward to meeting you,

Chiniskumitnaau

Bonjour, Taneshpanin

Je m'appelle Elisa, je suis chercheuse sur le projet Chien de l'Université de Montréal.

Nous organisons un concours de photos, et nous invitons toutes les personnes intéressées à soumettre une photo de chiens à Matimekush avec un petit commentaire. Toutes les photos seront utilisées pour créer un calendrier communautaire pour 2020, et une personne gagnera un tirage au sort pour 100 $ de nourriture pour chiens!

Nous ferons également des entrevues. Si vous souhaitez nous parler des chiens à Matimekush, vous pouvez contacter la radio locale ou McGill[1].

chaque participant à l'entrevue recevra 25 $ et aura la chance de gagner un autre tirage au sort avec trois prix.

Sinon, vous nous verrez certainement dans la communauté.

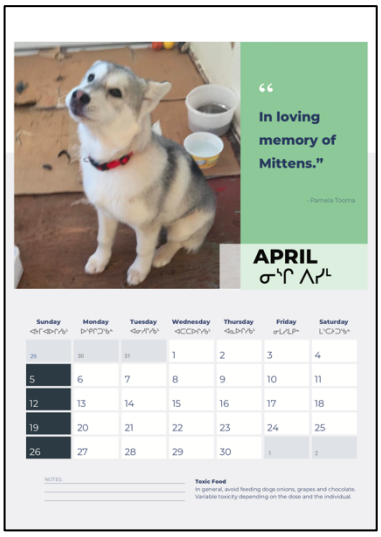
J'ai hâte de te rencontrer,

Tshinashkimitin

[1] *Reference to McGill, is the local research station in schfferville (owned by McGill Universaty)*

Appendix E – Calendars

2020 Calendar developed for Kawawachikamach



MAY

"**Luna brings love and happiness in our family.**

She is gentle and loving with children."

- Aaron Einish

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

NOTES

Worms
Worms are usually caught by the consumption of feces or contaminated animals, fleas, etc. Worms can sometimes be visible in the stool. The appearance varies depending on the type of worm but in general we see them as spaghetti or grains of rice.

JULY

"I chose this picture because **my niece loves our dog, Buzz.**"

- Annie Nattawappio

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1

NOTES

Eye infection: symptoms
The dog's eye will be held partially closed, swelling surrounding the eye, but especially persistent secretions (leaking). The symptoms vary according to the dogs.

JUNE

"**His name is Smokie.**"

- Isaac Einish

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

NOTES

Bath
Do not give dogs baths every day. Northern breeds with thick coats do best with fewer baths and a lot of extra brushing to help distribute natural oils that keep your dog's skin and coat healthy.

AUGUST

"Here's a photo of Chase and my daughter Clara.

He's a great dog and also protective.

So playful with my kids."

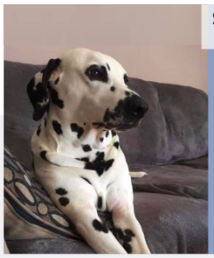
- Martha-Joanne Einish

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

NOTES

Ear infection: symptoms
Dogs may scrape and shake their head, and a different appearance between their two ears (eg: lower hold, redness, bad smell, accumulation of black or yellow secretions).

SEPTEMBER



"**Mila, qui relaxe en regardant la télévision.**"

- Mathieu André Mamveanskum & Peter Paul Mamveanskum

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3

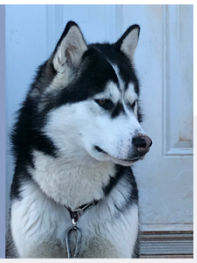
NOTES

Urinary tract infections - Different Symptomes
The dog may have: increase in urination frequency, urinating in inappropriate places, visible blood in the urine, pain during urination, excessive licking & swelling of the genital areas.

OCTOBER

"**Princess was a great companion.** A beautiful pure breed husky I got from a dog team from Kuujjuaq."

- Noah Swappie



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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

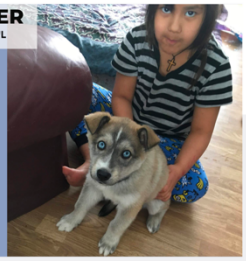
NOTES

How to treat constipation
Provide the dog with a diet high in fiber and exercise (eg. fruits, green vegetables and potatoes, or cereals and pumpkin puree). Parasitism, urinary problem, anal gland problem can cause similar symptoms.

NOVEMBER

"I find my puppy cute."

- Annie Tooma



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

NOTES

How to treat diarrhea:
Have the dog fast for 8 to 12 hours. Feed easily digestible food (protein ex: beef, fish) with boiled rice in several small meals. Continue until resolution of symptoms and gradually return to their usual diet.

December

"Crazy, but still loved."

- Alexandra Sandy

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25 Christmas Day	26
27	28	29	30	31	1	2

NOTES

Need pet advise from a vet?

Call or email this Veterinary helpline

nunavik-giv@medvet.umontreal.ca

514 345-8521, ext. 0065

When to call the vet and symptoms of illnesses:

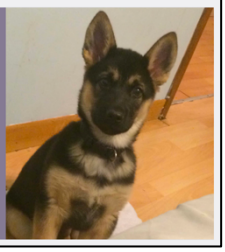
- Persistent fever (over 39.5 C for more than 48 hours)
- Lack of appetite for 48h (24h for small dogs)
- Signs of infection: fever, secretions or puss in the eyes, nose, or wounds
- Abundant, persistent, or bloody diarrhea
- Rabies symptoms: a lot of salivation, loss of appetite, behavior change

Information to have when calling the helpline:

- Cat or dog
- Age and sex (male or female)
- Neutered or sterilized
- Approximate weight
- Vaccines received
- General symptoms, and timeline (vomiting or diarrhea, appetite)
- Treatments used so far
- Pictures by email if possible.
- Call back in 24 to 48 hours, with advice and prescriptions in pharmacy

"Conan (the Barbarian) **Cool, Calm and composed.** Rare moments like these I got to capture."

- Leona Pien



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Chiniskumitin
Thank you

We would like to thank all the participants for the submission of their pictures and their participation in this research project. We would also like to recognize the essential collaboration of various individuals, including the local coordinators, Rita Tooma and Kabimbetas Noah Mokoush, and other members of the community such as George Guanish and Caroline Einish.

We would like to thank Guillaume Theberge from the Faculty of Veterinary Medicine at the Université de Montréal for his collaboration in developing the veterinary tips. Leilani Shaw for her work on the graphic design of the calendar. As well as Elisa Cohen-Bucher for her involement in the graphic design of the calendar and as a researcher on this project, much like Thora Herrmann, Department of Geography of the University of Montreal and Laine Chanteloup of the Institute of Geography and Sustainability of the University of Lausanne.

2020 Calendar developed for Matimekush-Lac-John

Besoin d’un conseil vétérinaire?

Ligne d’assistance vétérinaire

nunavik-giv@medvet.umontreal.ca

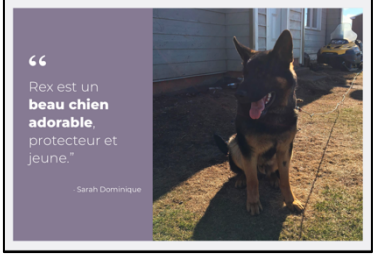
514 345-8521, ext. 0065

Symptômes de maladie - Quand appeler le vétérinaire?

- Fièvre persistante (plus de 39.5 C pendant plus de 48H)
- Manque d’appétit pendant 48h (24h pour les tout petits chiens)
- Signes d’infection: fièvre, sécrétions purulentes abondantes (yeux, nez, plaie, vulve,)
- Diarrhée persistante ou hémorragie abondante
- Symptômes de la rage (souvent transmis par le renard): salivation excessive ++, perte d’appétit, changement de comportement

Informations à avoir lors de l’appel du service d’assistance

- Chat ou chien,
- Age, sexe (femelle ou mâle)
- Castré ou stérilisé, poids approximatif, les vaccins reçus (lesquels et quand)
- Les symptômes généraux (quel est le problème?)
- Depuis quand, traitements, vomissements ou diarrhée, appétit
- Photos par courriel si possible
- Retour d’appel en 24 à 48h, conseils et prescriptions en pharmacie si nécessaire



Conseils de toilettage pour chiens

Chien asperger par une moufette:

1 litre de peroxyde d’hydrogène à 3%
1/4 tasse de bicarbonate de sodium
1 ou 2 cuillères à thé de savon liquide

Arroser la fourrure de votre chien avec la solution. Ensuite, rincez bien la fourrure avec de l’eau. La solution ne doit pas entrer en contact avec les yeux de votre animal.

Remarque: l’utilisation de peroxyde d’hydrogène peut provoquer une légère décoloration de la fourrure.

Lavage des oreilles du chien:

Laver les oreilles de votre chien est nécessaire lorsque:
1. La démangeaison est évidente, et
2. Il y a une grande accumulation de cire d’oreille.

Comment laver les oreilles de chien:
- Utilisez un mélange d’eau et de vinaigre (Ratio 1:1)
- Bien remplir l’oreille avec le nettoyant et masser en profondeur
- Essuyez ce qui est visible sans aller trop loin. N’utilisez pas de coton-tige pour aller trop loin.
- Répéter pendant 3 jours.

Tshinashkumitin
Merci

Nous voudrions remercier tous les participants pour la soumission de leurs images et leur participation à ce projet de recherche. Nous aimerions également reconnaître la collaboration essentielle de diverses personnes y compris la coordonnatrice local, Kuanceetah McKenzie, et d’autres membres de la communauté tels que Rita McKenzie et Michel Volant.

Nous tenons à remercier Guillaume Theberge de la Faculté de médecine vétérinaire de l’Université de Montréal, pour son aide dans le développement des conseils vétérinaires. Leilani Shaw pour son travail sur la conception graphique du calendrier. Ainsi que Elisa Cohen-Bucher pour le graphisme du calendrier et comme chercheuse sur ce projet, tout comme Thora Herrmann, du département de géographie de l’Université de Montréal et Laine Chanteloup de l’Institut de Géographie et de Durabilité de l’Université Lausanne.

Calendrier 2021

JANVIER

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28						

MARS

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JUIN

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JUILLET

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29	30	31				

SEPTEMBRE

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12	13	14	15	16	17	18
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OCTOBRE

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24	25	26	27	28	29	30
31						

NOVEMBRE

S	M	T	W	T	F	S
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7	8	9	10	11	12	13
14	15	16	17	18	19	20
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28	29	30				

DÉCEMBRE

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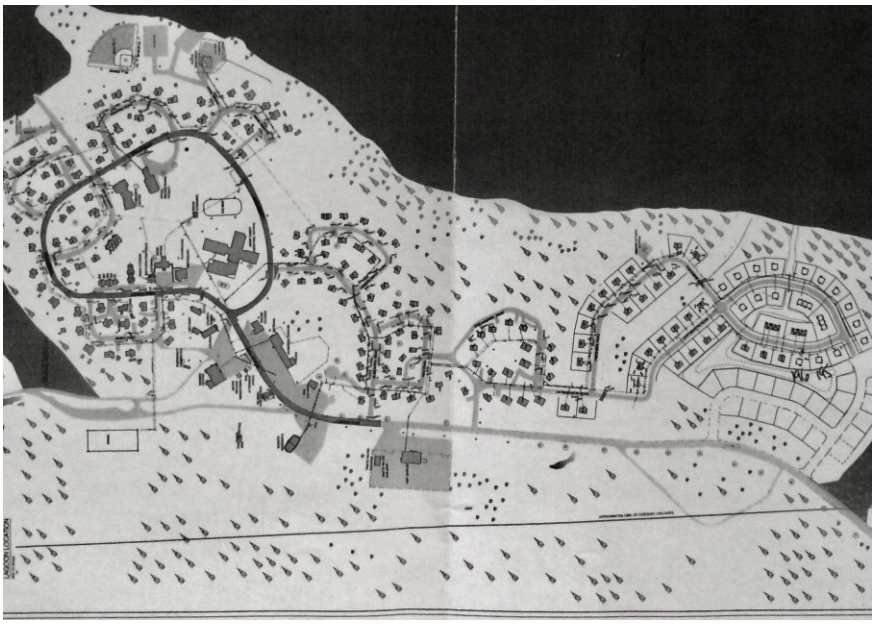
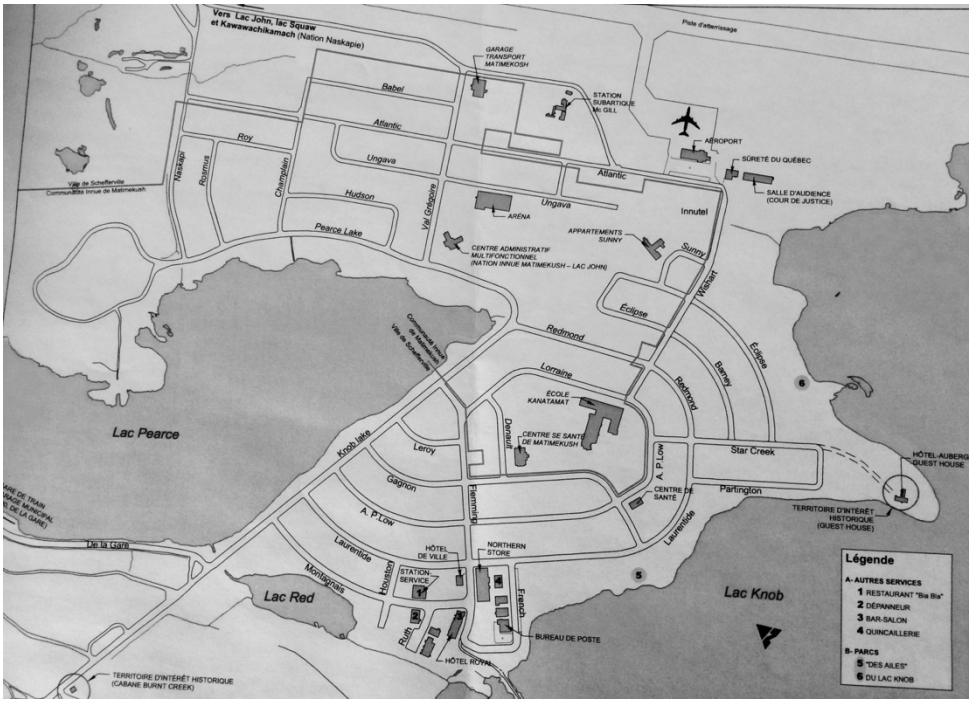
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Appendix F – Participatory Mapping

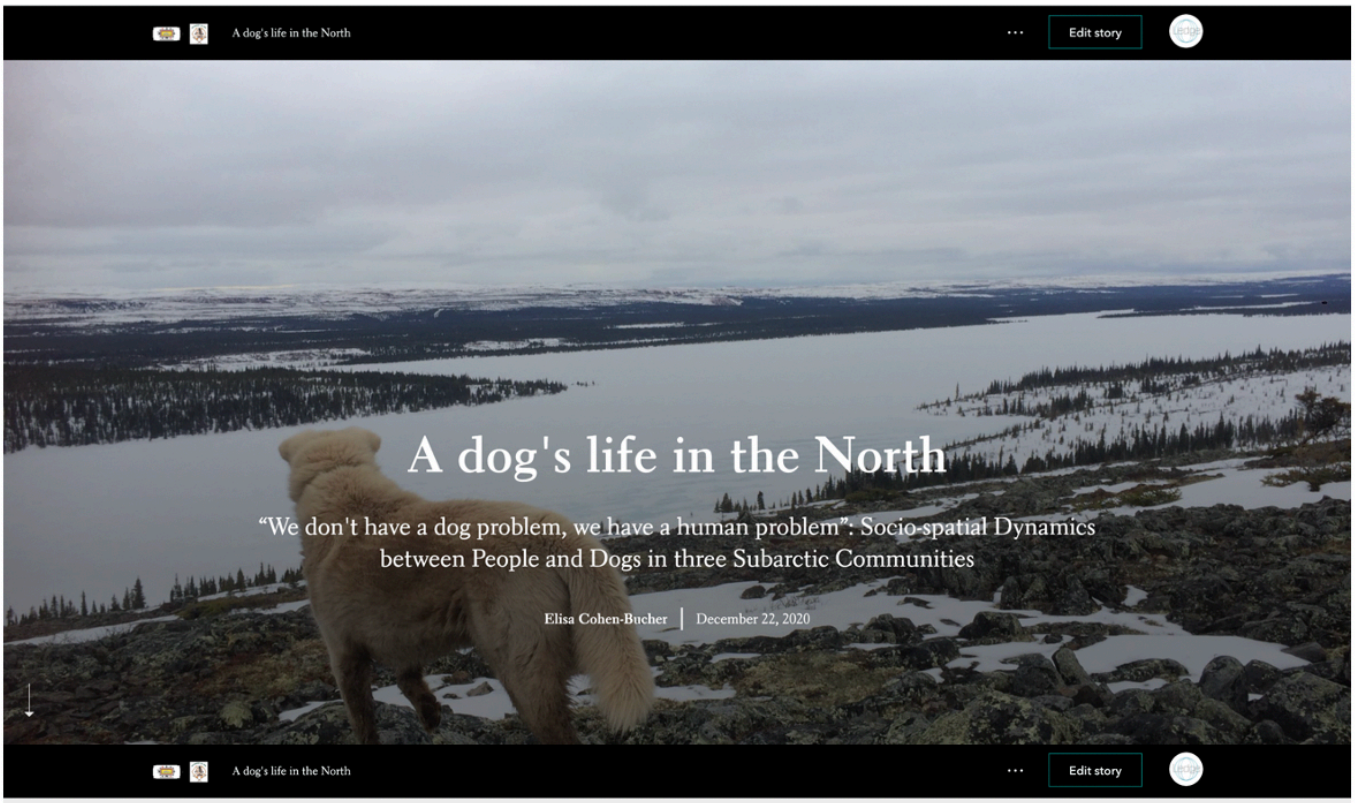
Map of Kawawachikamach



Map of Matimekush & Schefferville



Appendix G – Story Map



Research Project | The Role of Dogs | Socio-spatial Dynamics | Photo Gallery | References

Dogs are a part of the reality of contemporary Northern Indigenous communities, they are integral to the physical, social and cultural environment but are also a source of health risks.

Location of Kawawachikamach, Matimekush-Lac-John, & Schefferville

The province of Quebec officially recognizes eleven Indigenous Nations, two of which are the Naskapi Nation of ᑲᓇᐋᑎᒪᓴᑦ of Kawawachikamach, and the Innu Nation of Matimekush-Lac-John, located in proximity to the municipality of Schefferville. All three communities are geographically isolated and can only be reached by a 14 hour train from Sept-Îles or by plane.

Naskapi Nation of Kawawachikamach

Research Project

Indigenous Peoples, Dogs and Wellness (IPDW) is a research project concentrating on improving the health and wellness of Inuit, Cree, Naskapi, Innu and other peoples living in Northern Canada. These communities have experienced human health issues related to dogs over a number of years and have expressed a desire to resolve them.

Research Project The Role of Dogs Socio-spatial Dynamics Photo Gallery References

The following results stem from a collaborative research project with local communities to analyze the sociocultural and spatial dynamics between humans and dogs in the communities of Kawawachikamach, Matimekush-Lac John, and Schefferville, in Québec.

More specifically we examine:

- The roles of dogs and their keepers
- The impacts of dogs on the wellbeing of the population living in said communities
- How keepers impact the wellbeing of dogs

Today the Naskapi Nation counts a population of 1,056 members, the Innu community of Matimekush-Lac-John has a population of 750 people and the town of Schefferville has a population of 210.

The police are said to register an average of 40 to 50 complaints per year about dogs, particularly concerning the overpopulation of dogs, the personal safety issues with some dogs, the presence of aggressive dogs.

Social areas in the communities of Schefferville & Matimekush-Lac-John

A dog's life in the North ··· Edit story

Research Project The Role of Dogs Socio-spatial Dynamics Photo Gallery References

Northern dogs, free roaming and tied, living in Indigenous communities have continually been described in mainstream media as "Northern beauties" rescued from the streets of a remote northern community (Gillis, 2018a); or as "Dogs that have not been properly cared for [who] will find families who will love them for their entire lives" (Gillis, 2018b).

Charity group works with Indigenous communities to feed No…

MONTREAL -- Long winters can be harsh on outdoor dogs but, in the Indigenous communities in Northern Quebec, people have banded together t…

https://montreal.ctvnews.ca

The overall aim of this article is to call into question the current narratives in mainstream media surrounding the living conditions, health and wellbeing of dogs and their keepers in these two subarctic First Nation communities.

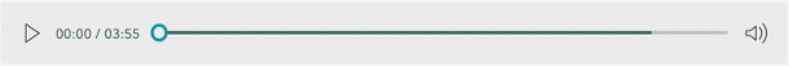
« Avant, je les laissais aller, mais ils revenaient tout le temps avec une blessure ou malade. Donc je leur fais faire leurs besoins, mais sinon ils sont attachés » (6B)

"Yes, we tie her up every once in a while. […] When they're in heat, and when the dog catcher is here. Other than that, she is OK. She doesn't walk around here or around town" (13 A).

The Role of Dogs

While the role of dogs has changed over the last 30 years (Tester, 2010; Riche, 2015; Mazzullo, 2018) this research found numerous ways in which dog are said to ensure the wellbeing of their keepers by providing protection and companionship. In return, keepers play an important role in the wellbeing of their dogs, not only through protection and companionship, but also through tending. These reciprocal roles demonstrate that the continued importance of dogs is rooted in a traditional worldview in which respect for animals as kin is vital for survival and wellbeing (Montesanti & Thurston, 2016).

An Innu participant shared a story that was told by her great-aunt highlighting the use of dogs for protection and companionship, especially when women were left at camp while the men went on hunting trips. The story also highlights the role of the keeper to ensure the wellbeing of their dog through feeding, providing medical care and guardianship.



A conversation with interview participants 13B, while they made donut in their kitchen

Research Project The Role of Dogs Socio-spatial Dynamics Photo Gallery References

Protection

The fundamental role dogs play in ensuring the protection of the community was a recurring theme highlighted by participants from both First Nation communities. A Naskapi elder stressed the role of dogs in protection when travelling through a barren landscape.

"We had a dog yes. The only use we had of it is, it goes with me whenever I go camping, to chase away any animal that comes around so it won't be around near the camp. That's the only use a person has of a dog" (6A).

Participants attributed protection to dogs, due to their ability to communicate: *"Like my grandfather used to say, he was an alarm. And when he barked, it was a really loud bark"* (8A).

Dogs today were found to continue to protect their keepers from wildlife but have also adapted to new realities such as the presence of other dogs, fires, intruders, and self-harm. The results of this research highlight that dogs go beyond protecting their keepers to include protecting their keepers' families, friends, neighbours and property. *« [si] quelqu'un touche au ski-doo, [mon chien] capote » (5B)*

The relationship between keepers and their dogs is is mutually beneficial. It is not only dogs who protect their keepers, but keepers were also found to protect their dog(s) from similar dangers such as wildlife, other dogs, and environmental dangers. As is the case with dogs, keepers protection role goes beyond their own dog to extent to that of other dogs within their communities.

Companionship

While some participants described dogs as no longer having a role in today's communities other than being a companion: *« le rôle aujourd'hui, absolument rien. Personne aujourd'hui ne vit comme mon grand-père vivait. Aujourd'hui, les chiens comme j'ai à la maison c'est des chiens de compagnie »* (12B), others identified companionship as a historical role.

The role of companionship included the dog's ability to provide friendship and mental support to their keepers:

"For me it's … comforting, like a friend… Well, our other dogs always knew when we were sad or even danger… As if it understands how I feel" (5A);

« C'est un compagnon. Quand je vais à la pêche, c'est quelqu'un qui est à côté de moi, qui va s'amuser dans le bois » (12B)

Keepers reported that their dogs have the ability to sense their emotions, some went as far as to describe their dog as being the only being who understands them well *"as if he was the only one who understood. And I think that's why I got so attached"* (5A)

Tending

Unlike keepers and dogs mutual roles of companionship and protection, the role of tending is exclusively associated with keepers. Keepers role in tending to their dogs was found to have both

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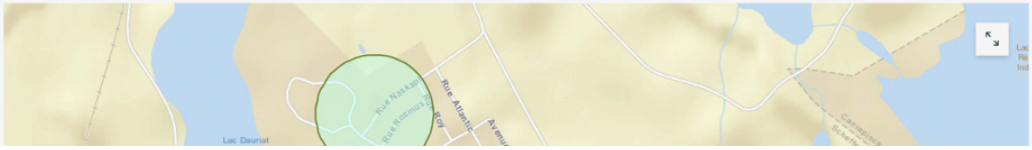
Socio-spatial Dynamics

Cognitive maps were conducted with participants to monitor their perceptions and observations of the spatial distribution and frequency of human-dog contacts. This methodology was selected due to the spatial analysis it permits, at both an individual and a community level, of the distribution of dogs in these communities, and more specifically, of the frequency and zones or areas of human-dog interactions.

Some examples of geographic locations include spaces avoided due to high dog activity or where dog fights have taken place, and established areas in the community associated with fear, such as where community members take excessive precautions when walking. Other locations that were identified by participants include paths used for dog walking and where participants experienced dogs-wildlife interactions.

The map bellow shows the areas with high dog activities, identified by a **red circle**, and the areas with low dog activities, identified with a **green circle.**



Areas of high and low dog activity

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Research Project | The Role of Dogs | Socio-spatial Dynamics | Photo Gallery | References

The movement of keepers and their dogs was found to take into account the areas in the communities with high and low dog activities. This can be seen in the two examples below.

Movement of Dogs

Free roaming dogs were found to travel throughout the community: between keeper's homes and place of work, between multiple homes, between communities (Matimekush, Lac-John, Kawawachikamach) and on the periphery of communities (forest, road, dump, cemetery)

Depending on the dog's network, they take detours when travelling through the community to avoid tied dogs, packs of dogs, areas with high dog activity, and dog fights.

Dog fights were found to occur where there are either dog packs or high dog populations and were reported to affect both tied and free-roaming dogs.

- « Il se faisait attaquer même en avant attaché » (3B)
- « Quand il se détachait là … il se faisait battre direct» (4B)
- « Mon petit frère avait un shi-tzu. Il s'est fait battre par un gros Husky. Il est mort » (1B

Dog fights were found to occur where there are either dog packs or high dog populations and were reported to affect both tied and free-roaming dogs.

- « Il se faisait attaquer même en avant attaché » (3B)
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- « Mon petit frère avait un shi-tzu. Il s'est fait battre par un gros Husky. Il est mort » (1B

Recreation based on interview testimonies

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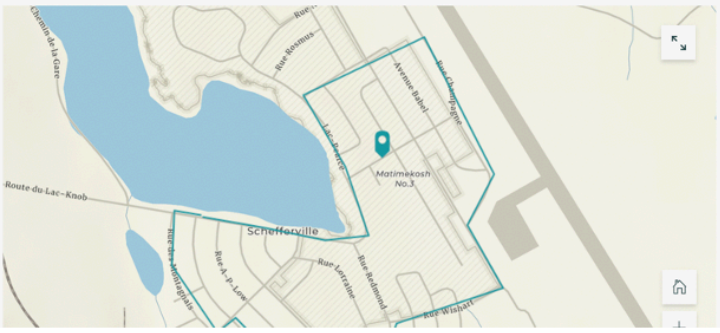
Movement of keepers

Certain keepers reported taking their dogs for walks. The roads and paths used were found to be very specific and were primarily chosen to avoid conflict.

The areas of conflict between dogs in Matimekush and Schefferville were reported to be areas with high dog activities and located around social areas such as the local restaurant, depanneur or schools. Results demonstrate also a correlation between danger and seasonal difference due to food accessibility/availability. Dog keepers stated that the wellbeing of their dogs is impacted by numerous variables which they take into account when moving through the community.



Wildlife Interaction

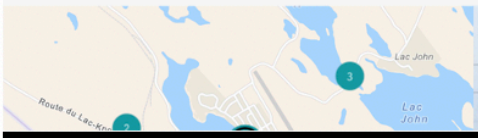
Wildlife was found to encroach on the three communities at varying times of the year. These interactions mostly took place on the outskirts, however, changes in the environment such as increased food scarcity, were found to increase the presence of wildlife in the communities.

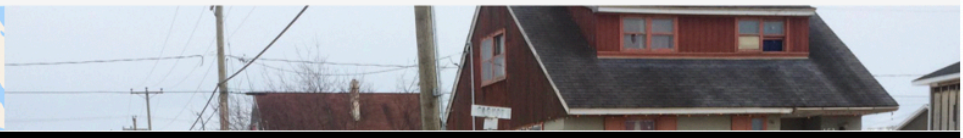
"Les animaux sauvages ils ont la rage. C'est mieux d'être protégé par des chiens. Les chiens ils font capoter les ours" (5B).

"She grabbed [our puppy] cause [it] wanted to run to the bear. She almost didn't have time to grab our dogs. And the bear would have probably killed our dog" (13A).

"Elle a déjà eu des contacts avec un ours. C'est nous qui l'avons soigné avec des crèmes antibiotiques et des produits pour contrer la douleur. Ça s'est fermé tout seul" (12B).

"The wolf is barely seen, they're future out. There are some bears, foxes and rabbits, but I am not a trapper"





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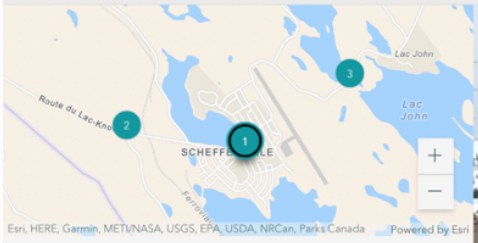
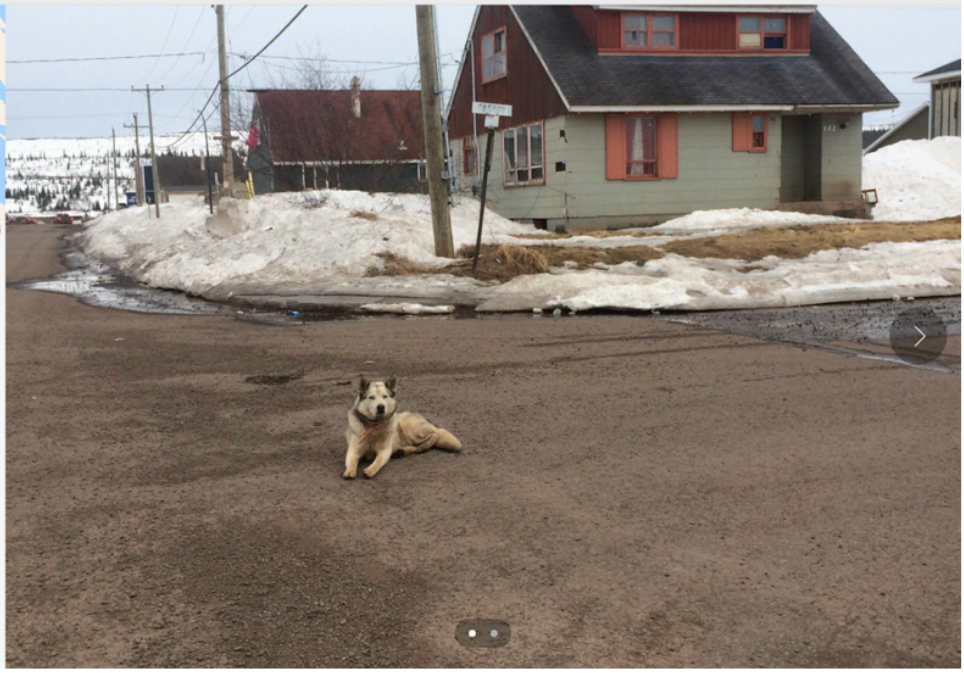
Research Project The Role of Dogs Socio-spatial Dynamics Photo Gallery References





1 Other Dogs

Dogs were found to come into contact with other dogs in the town centres but also in the peripheries of the town such as at the dump, or on the road to Kawawachikamach.

Three categories of dogs were identified by local community members. **Domestic dogs** which have an owner and receive regular tending at their keepers home. **Stray dogs,** who roam the community and don't have specific owners. **Wild dogs,** who much like wildlife live on the outside of our town and have little to no contact with community members.

01 / 03

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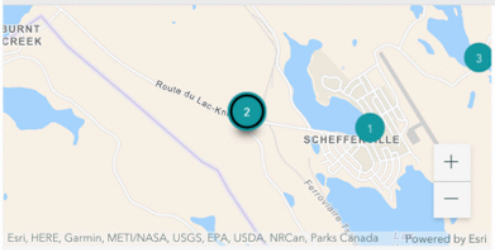

2 Bears

Bears are one of the most frequent actors to come into contact with free-roaming dogs.

Certain areas, such as the dumps, the mining road, the old airport and the road between Kawawachikamach and Schefferville were found to have a high number of interactions between wildlife and dogs. Interactions also take place on the road to the dump and mine and around the dump, train station and the cemetery trail.

02 / 03

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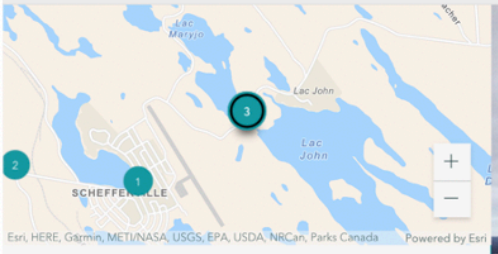
Research Project | The Role of Dogs | Socio-spatial Dynamics | Photo Gallery | References



3 Wolfs & Foxes

Wildlife were not only found to be present at the dump but also in the surrounding environment.

Wolfs was reported on the outside of town but never reported coming into town.

Foxes, on the other hand, were reported to come into proximity with communities when travelling on the edges of frozen lakes.

03 / 03

Dogs were not only reported to protect the

The geographical interactions between humans and dogs were of particular importance in this study. The close proximity of the two Indigenous communities and the municipality, each with their own jurisdiction and population, enables free roaming dogs to travel between them.

Cohabitation between dogs, their keeper and the rest of the community was found to be impacted by whether the dog was free roaming, tied, or belonging to one or numerous households.

Photo Gallery

What does your dog mean to you?

A photovoice contest was carried out during the same time period, inviting all community members to submit a photograph representing the importance and/or the role of their dog(s) in the community. Each photo was accompanied by a caption that explained why the person chose that particular photo.

For the photo analysis, a combination of thematic and iconographic analysis was used to examine the pictures and captions submitted by community members. Thematic analysis was used to identify recurring themes in dog photos as well as in their respective captions (Russinova et al

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Research Project The Role of Dogs Socio-spatial Dynamics Photo Gallery References

For the photo analysis, a combination of thematic and iconographic analysis was used to examine the pictures and captions submitted by community members. Thematic analysis was used to identify recurring themes in dog photos as well as in their respective captions (Russinova et al., 2018). Such themes included whether a dog was a free-roaming or tied up. Iconographic analysis, devised from visual anthropology, was also used when studying photos (Fleming et al. 2009). This methodology of analysis focuses on the visual representation of dogs such as the role played by the dog in the photo (companionship, protector, source of danger, etc.).

Few solutions for dog management implemented in the North have incorporated the holistic perspective of Indigenous peoples, a concept integral to the conception of wellbeing (Mundel & Chapman, 2010; Lévesque, 2018a). This research sought to examine the relations families have with their dogs to inform culturally appropriate solutions to dog overpopulation specific to the context of the Naskapi and Innu Nations. We aim to question the social construction of mainstream media's perception of dogs in the North, which fails to reflect the multidimensional relations between Indigenous keepers and their dogs, notably by omitting the role that both play in ensuring each other's daily wellbeing. We strive to go beyond the western conception of pet keeping, by acknowledging the role of dogs in ensuring the wellbeing of their communities and by recognizing dogs as living beings with agency that belong to families and communities and are part of their ecosystem. This research engages in improving the health and wellness of the Naskapi, Innu and other populations living in Northern Québec, not only through identifying dog-associated health risks, but also through supporting the role of dogs in the health and wellness in these Northern communities.

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Russinova, Z., Mizock, L., & Bloch, P. (2018). Photovoice as a tool to understand the experience of stigma among individuals with serious mental illnesses. *Stigma and Health*, *3*(3), 171–185. https://doi.org/10.1037/sah0000080

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This research was done in collaboration with the communities of Matimekush-Lac- John, Kawawachikamach, and Schefferville.

This Story Map was created as a pilot for the submission of a masters thesis entitled: *The Socio-Cultural Interrellations and the Socio-Spatial Dynamics between Dogs and Peoples in Subarctic Communities: The Case of Kawawachikmach, Matimekush-Lac-John and Schefferville* by Elisa Emily Cohen-Bucher, Dec 2020

Appendix H – Photovoice Consent

Photovoice competition rules and consent

« WHAT DO YOU LIKE OR DISLIKE ABOUT DOGS IN KAWAWACHIKAMACH ? »

PHOTO CONTEST ABOUT DOGS IN KAWAWACHIKAMACH

Prize - 100$ in dog food

Rules

Organized by the Indigenous Peoples Dogs and Wellness research program and in partnership with the Naskapi Nation of Kawawachikamach, this photography collection aims to create a dialogue about dogs in Kawawachikamach. The Indigenous Peoples Dogs and Wellness research program aims to study the socio-cultural and socio-spatial relationships between Humans and dogs in Kawawachikamach.

The photo contest is limited to **one photo per person**. By submitting your photo and its caption, you agree that it will be included in a 2020-2021 calendar that will be given to you for free for the new year.

PARTICIPATION MODALITIES

- The topic of the photo is: **What do you like or dislike about dogs in Kawawachikamach**
- Your photo should be accompanied by a short caption that explains **why did you chose this picture ?**
- Each participant should be a member of the Naskapi Nation of Kawawachikamach
- If you are under 18, please ask a parent / tutor to sign in order to submit your picture
- Each participant should be the sole author of his/her photo and hold the copyright

PHOTO FORMAT

- Images should be submitted in their original resolution without modification.
- Photos and digital and in print format will be accepted, photos can be in black and white or in colors, old or recent

Raffle

- The photo competition will end on May 28th 2019 and the results of the raffle will be broadcast on the local radio on May 29th, 2019.

DATA PROPERTY

- You hold the entire copyright of your photo.
- You agree that any image presented to the photo contest could be used for scientific purposes by the research team from the University of Montréal.
- If your picture is used for scientific purpose (non -commercial activities), your name as author of the photographs will be mentioned, otherwise please tick the box if you prefer to stay anonymous :

☐ I would like to stay anonymous

Please fill out :

1- Name and Surname : _____ Age: _____

2- Explain why you chose this image to talk about dogs :

3 – Contacts information for the calendar :

Signature

I _____ agree to participate to the photo contest. I have read the rules, objectives of the photo contest.

Signature of the participant : _____ Date

Signature of parent or tutor : _____ Date

Appendix I – Interview Consent

Written Consent Forum (available to participant in French and English)

Université de Montréal

INFORMATION AND CONSENT FORM
for the research project:
The cultural relationships and the socio-spatial dynamics of dogs and people in Whapmagoostui-Kuujjuarapik and Kawawachikamach

Researchers :
Thora Herrmann, Associate Professor, Université de Montréal, Geography department, Canada.
Laine Chanteloup, Associate Professor, Université de Limoges, GeoLab, France.
Elisa Cohen-Bucher, Master's student at the Université de Montréal, Geography department, Canada.

This research is funded by the Canadian Institutes of Health Research from 2017 to 2021.
This research is part of a larger research project entitled *Balancing Illness and Raising Wellness at the Human Interface Dog in Northern Canada* (director: Professor André Ravel, Faculty of veterinary medicine, Université de Montréal) which explores human-dog interrelations in Nunavik and Nunavut.

You are invited to participate in this research project. Before accepting, please take the time to read this document which presents the conditions of participation in the project. Do not hesitate to ask any questions that you deem useful to the person who presents this document to you.

Nature of the study
The purpose of the research is to study the socio-cultural relations and socio-spatial dynamics between dogs and humans in the Naskapi Nation of Kawawachimach, to better understand how health issues related to the dog are exacerbated by the lack or limited access to veterinary services, and dog overpopulation.

Conduct of participation
Your participation in this research involves taking part in a focus group or a semi-structured interview on the issue of related to the interactions between humans and dogs in your community.
The duration of activities is estimated at about two hours in the case of a focus group, and about 1 hour in the case of a semi-structured interview. The interviews will be focus on pet demographic, pet care, attitudes, the cultural role of dogs, and your personal experiences regarding dogs in your community.

Benefits, risks or possible disadvantages of your participation
Participating in this research gives you an opportunity to reflect and discuss confidentially abcut your perception or personal experience of and with wild and stray dogs in and around the community. It is possible that telling your story gives rise to moving or uncomfortable thoughts or memories. If this happens, do not hesitate to talk to the person conducting the interview.
Confidential and sensitive data on your relationship with dogs will not be directly communicated to avoid stigmatization from animal pressure groups. Some of this information about the social and cultural relationships your community may have with Nordic dogs will be contextualized to show the realities of the North and help find culturally adaptable solutions.

Compensation
To thank you for your participation, you will receive a $25 at the end of the interview. In addition, your name will be put in a box for a raffle (May 29th, 2019). 1st prize: 35kg in dog food; 2nd prize: 17kg in dog food; 3rd prize: dog treats. If more than 15 people from your community participate in an interview, the community will win a dog cage.

Voluntary participation and right of withdrawal
You are free to participate in this research project. You can also terminate your participation without negative consequences or prejudice and without having to justify your decision. If you decide to end your participation, it is important to inform the researchers whose contact details are included in this document. All personal information about you will be destroyed.

Université de Montréal

Privacy and data management
The following measures will be applied to ensure the confidentiality of information provided by you:

- Your name will not appear in any scientific report/publication. A number will be assigned to each interviewee, that only the research team will know, and only this number will appear in the scientific publications (eg, Interviewee #3, Kawawachikamach observed that: "....").
- Check this box if you would like your name to be cited as recognition of your-related dog knowledge in scientific publications (articles, posters) and / or reports that will emerge from this research project.

  ☐ I like my name to be cited.

- Data on average number of dog per family, breeds, traditional knowledge on how to take care of dogs, your concerns, needs and expectations for dogs in the community as well as participatory mapping will be reported to the Naskapi band council to accompany the council in building a management plan for dogs in your community, Kawawachikamach, and to update the first aid guide for dogs (www.vetnunavik.ca) for your community.
- Research documents, including data and records, will be kept in a secure location. The recordings will be transcribed and destroyed, as well as any personal information, 7 years after the end of the project. Only data that can not be identified will be kept after this period.

Signatures
I, the undersigned _____ consist freely to participate in the research entitled: *"The cultural relationships and the socio-spatial dynamics between dogs and people in Whapmagoostui-Kuujuaraapik, and Kawawachimach"*. I read the form and understood the purpose, nature, advantages, risks and disadvantages of the research project. I am satisfied with the explanations, clarifications and answers that the researchers provided me, if any, regarding my participation in this project.

_____ _____
Signature of participant Date

_____ _____
Signature of a parent or tutor Date

I explained the purpose, nature, benefits, risks and drawbacks of the research project to the participant. I responded to the best of my knowledge to the questions asked and verified the participant's understanding.

_____ _____
Signature of the researcher Date

If you have any questions about the research, or to withdraw from the research, you can contact Elisa Cohen-Bucher at the following e-mail address: elisa.cohen-bucher@umontreal.ca or Thora Herrmann at the following e-mail address: thora.martina.herrmann@umontreal.ca or by phone at 514 343-8044.
If you have any concerns about your rights or about the researchers' responsibilities regarding your participation in this project, you can contact the Ethics Committee for Arts and Sciences Research by email at ceras@umontreal.ca or by phone at 514 343-7338 or visit the website http://recherche.umontreal.ca/participants .
Any complaint relating to your participation in this research may be addressed to the ombudsman of the Université de Montréal, at the telephone number (514) 343-2100 or at the email address ombudsman@umontreal.ca. (The ombudsman accepts collect calls).

Oral Consent Forum (available to participant in French and English)

Université de Montréal

VERBAL INFORMATION AND CONSENT FORM
for the research project:
The cultural relationships and the socio-spatial dynamics of dogs and people in Whapmagoostui-Kuujjuarapik and Kawawachikamach

We are **Elisa Cohen-Bucher**, Master's student at the Université de Montréal, Geography department, **Thora Herrmann**, Professor at the Université de Montréal, Geography department and **Laine Chanteloup**, Professor at the Université de Limoges in France. We work in dog project looking at people-dog relationship and diseases related to dogs in Nunavik and Nunavut. The project is funded by the Canadian Institutes of Health Research for 4 years (2017 to 2021). Professor André Ravel from the Faculty of veterinary medicine at the Université de Montréal is the project leader.

We, Elisa, Thora and Laine, co-lead the socio-cultural part of the project, which explores the socio-cultural relations and their evolution and socio-spatial dynamics between dogs and humans in the Naskapi Nation of Kawawachimach, to better understand how health issues related to the dog are exacerbated by the lack or limited access to veterinary services, and dog overpopulation.

Your participation in this research involves taking part in a focus group or a semi-structured interview on the issue of related to the interactions between humans and dogs in your community. The interview will take approximately 1 hours and the groups discussion 2 hours. The interviews will be focus on pet demographic, pet care, attitudes, the cultural role of dogs, and your personal experiences regarding dogs in your community.

Participating in this research gives you an opportunity to reflect and discuss confidentially abcut your perception or personal experience of and with wild and stray dogs in and around the community. It is possible that telling your story gives rise to moving or uncomfortable thoughts or memories. If this happens, do not hesitate to talk to us. Confidential and sensitive data on your relationship with dogs will not be directly communicated to avoid stigmatization from animal pressure groups. Some of this information about the social and cultural relationships your community may have with Nordic dogs will be contextualized to show the realities of the North and help find culturally adaptable solutions.

To thank you for your participation, you will receive a $25 at the end of the interview. In addition, your name will be put in a box for a raffle (May 29th, 2019). 1st prize: 35kg in dog food; 2nd prize: 17kg in dog food; 3rd prize: dog treats. If more than 15 people from your community participate in an interview, the community will win a dog cage.

You are free to participate in this research project. You can also terminate your participation without negative consequences or prejudice and without having to justify your decision. If you decide to end your participation, it is important to inform us by phone 514-343-8044 or email : thora.martina.herrmann@umontreal.ca. All personal information about you will be destroyed.

The following measures will be applied to ensure the confidentiality of information provided by you:

- Your name will not appear in any scientific report/publication. A number will be assigned to each interviewee, that only the research team will know, and only this number will appear in the scientific publications (eg, Interviewee #3, Kawawachikamach observed that: "....").
- Say YES if you would like your name to be cited as recognition of your-related dog knowledge in scientific publications (articles, posters) and / or reports that will emerge from this research project.

  YES - I like my name to be cited.

Université de Montréal

- Data on average number of dog per family, breeds, traditional knowledge on how to take care of dogs, your concerns, needs and expectations for dogs in the community as well as participatory mapping will be reported to the Naskapi band council to accompany the council in building a management plan for dogs in your community, Kawawachikamach, and to update the first aid guide for dogs (www.vetnunavik.ca) for your community.
- Research documents, including data and records, will be kept in a secure location. The recordings will be transcribed and destroyed, as well as any personal information, 7 years after the end of the project. Only data that can not be identified will be kept after this period.

Declaration of verbal consent
I, consent freely to participate in the research entitled: *"The cultural relationships and the socio-spatial dynamics between dogs and people in Whapmagoostui-Kuujuaraapik, and Kawawachimach"*.

I understood the purpose, nature, advantages, risks and disadvantages of the research project.

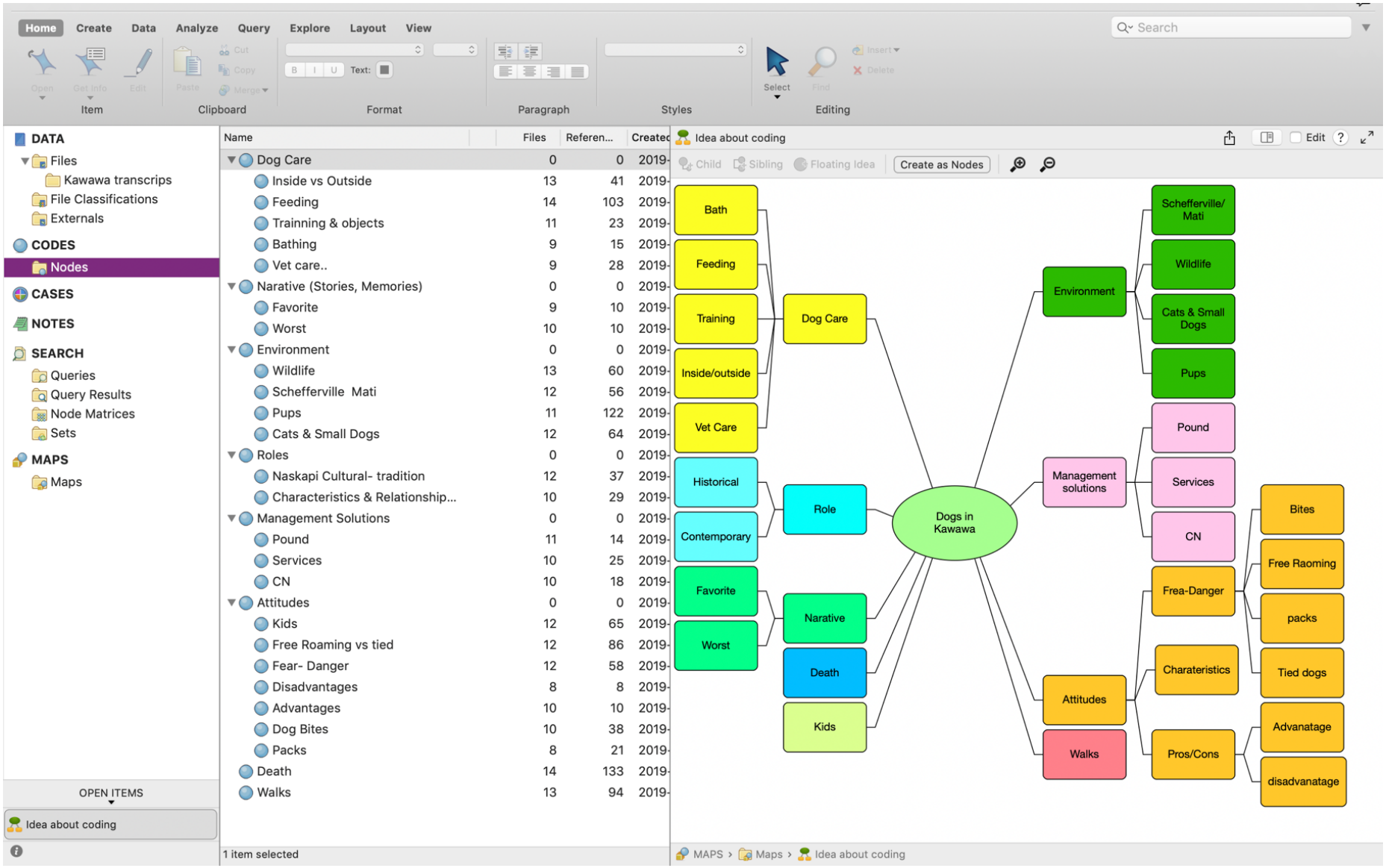
I am satisfied with the explanations, clarifications and answers that the researchers provided me, if any, regarding my participation in this project.

I explained the purpose, nature, benefits, risks and drawbacks of the research project to the participant. I responded to the best of my knowledge to the questions asked and verified the participant's understanding.

_____ _____
Signature of the researcher Date

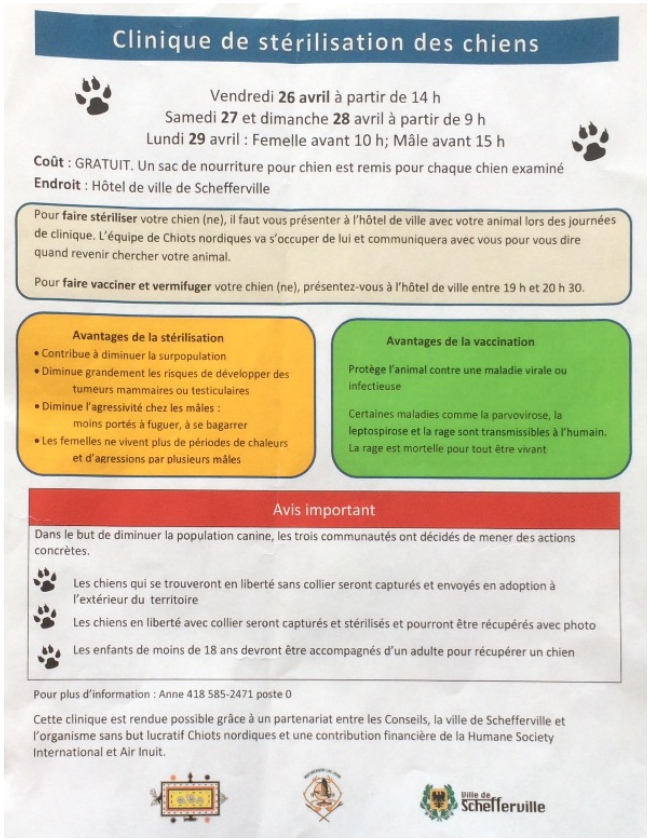
If you have any questions about the research, or to withdraw from the research, you can contact Elisa Cohen-Bucher at the following e-mail address: elisa.cohen-bucher@umontreal.ca or Thora Herrmann at the following e-mail address: thora.martina.herrmann@umontreal.ca or by phone at 514 343-8044.
If you have any concerns about your rights or about the researchers' responsibilities regarding your participation in this project, you can contact the Ethics Committee for Arts and Sciences Research by email at ceras@umontreal.ca or by phone at 514 343-7338 or visit the website http://recherche.umontreal.ca/participants .
Any complaint relating to your participation in this research may be addressed to the ombudsman of the Université de Montréal, at the telephone number (514) 343-2100 or at the email address ombudsman@umontreal.ca. (The ombudsman accepts collect calls).

Appendix J – Nvivo Themes



Appendix K – Sterelization Clinic

Picture taken during a volunteering shift at the Chiot Noridic Sterelization Clinic with Elisa Cohen-Bucher & Marie Jose Guanish André. Photo credit: Kariane Morais



Clinique de stérilisation des chiens

Vendredi **26 avril** à partir de 14 h
Samedi **27** et dimanche **28** avril à partir de 9 h
Lundi **29** avril : Femelle avant 10 h; Mâle avant 15 h

Coût : GRATUIT. Un sac de nourriture pour chien est remis pour chaque chien examiné
Endroit : Hôtel de ville de Schefferville

Pour **faire stériliser** votre chien (ne), il faut vous présenter à l'hôtel de ville avec votre animal lors des journées de clinique. L'équipe de Chiots nordiques va s'occuper de lui et communiquera avec vous pour vous dire quand revenir chercher votre animal.

Pour **faire vacciner et vermifuger** votre chien (ne), présentez-vous à l'hôtel de ville entre 19 h et 20 h 30.

Avantages de la stérilisation
- Contribue à diminuer la surpopulation
- Diminue grandement les risques de développer des tumeurs mammaires ou testiculaires
- Diminue l'agressivité chez les mâles : moins portés à fuguer, à se bagarrer
- Les femelles ne vivent plus de périodes de chaleurs et d'agressions par plusieurs mâles

Avantages de la vaccination

Protège l'animal contre une maladie virale ou infectieuse

Certaines maladies comme la parvovirose, la leptospirose et la rage sont transmissibles à l'humain. La rage est mortelle pour tout être vivant

Avis important

Dans le but de diminuer la population canine, les trois communautés ont décidés de mener des actions concrètes.

- Les chiens qui se trouveront en liberté sans collier seront capturés et envoyés en adoption à l'extérieur du territoire
- Les chiens en liberté avec collier seront capturés et stérilisés et pourront être récupérés avec photo
- Les enfants de moins de 18 ans devront être accompagnés d'un adulte pour récupérer un chien

Pour plus d'information : Anne 418 585-2471 poste 0

Cette clinique est rendue possible grâce à un partenariat entre les Conseils, la ville de Schefferville et l'organisme sans but lucratif Chiots nordiques et une contribution financière de la Humane Society International et Air Inuit.

Ville de Schefferville

ChiotsNordiques
12 hrs ·

C'est hier en fin de journée que nos 16 bénévoles sont revenus de Schefferville où ils se trouvaient pour stériliser et apporter les soins aux chiens si trouvant ainsi qu'à ceux des communautés de Kawawachikamach et Matimekush.

En chiffres cette mission c'est:

⚠️16 bénévoles
⚠️2 communautés : Kawawachikamach/Matimekush
⚠️1 Ville : Schefferville
⚠️2 jours 1/2 de chirurgie
⚠️Près de 1200 Km parcouru par avion
⚠️Près de 4500 lbs de matériel
⚠️Près de 650 Km parcouru par un bénévole pour mettre le matériel nécessaire sur le train

✅164 chiens admis en clinique
✅135 stérilisations, vaccinations et vermifugations réalisées
✅ 0 décès

⚠️1 tempête rendant les routes impraticables
⚠️1 présentation de sensibilisation dans une école
⚠️ 1000 fous rires et quelques larmes de nostalgie

C'est donc le cœur gros, mais rempli de souvenirs gravés à jamais que nous avons conclu hier cette grande aventure. Ces chiffres sont représentatifs de l'implication en temps, énergie et dévouement de notre incroyable équipe de bénévoles. Sans aucun doute ils auraient pu accomplir encore plus si la tempête n'avait pas rendu les routes impraticables et par le fait même la capture des chiens de Kawawachikamach, mais ce n'est que partie remise et assurément que les actions posées auront beaucoup d'effets.

Merci à nos 16 bénévoles qui ont une fois de plus accompli très grand tout en gardant l'énergie du début jusqu'à la fermeture des portes.

Schefferville, Kawawachikamach, Matimekush ce n'est qu'un gros « à la prochaine ».

You and 284 others — 53 Comments 23 Shares

Like Comment Share

Appendix L – Field Session Photos

Data Collection

A conversation with Naskapi Elder, David Swappi and local coordinator, Kabimbetas Mokoush, Kachikayahch, Naskapi hunting camps, May 2019

Photo credit: Ben Jancewicz https://benjancewicz.com,

Photo credit: Ben Jancewicz

Photo credit: Ben Jancewicz

A conversation with the late Naskapi Elder, Philipe Einish, his son and Bill Jancewicz, in Kawawachikmach

Photo credit: Ben Jancewicz https://benjancewicz.com,

Building Community Relations

Rita McKenzie, Owner of local restaurant Chez Rita.

Photo credit: Elisa Cohen-Bucher

Naskapi Research team on a field trip to Kachikayahch, Naskapi hunting camps, May 2019

Photo credit: Ben Jancewicz https://benjancewicz.com,

Rita Tooma at the Kachikayahch, Naskapi hunting camps

Photo credit: Elisa Cohen-Bucher

Field Trip to Innu Hunting Camps at Key Lake, with Ashley Guanish, Marie Jose Guanish André & Ben Jancewicz

Photo credit: Ben Jancewicz https://benjancewicz.com,

Housing and Accommodation

McGill Subarctic Research Station

Photo credit: Elisa Cohen-Bucher

Oksana and her four dogs who run the McGill Research Station.

Photo credit: Elisa Cohen-Bucher

Appendix M – Presentations

Chanteloup L., Herrmann T.H., Bucher-Cohen E. 2019. The many faces of human-dog socio-cultural and socio-spatial relations in 4 Indigenous communities in Northern Québec, Les animaux en ethnographie : quelle méthodes d'enquêtes, quelles postures éthiques?, Muséum National d'Histoire Naturelle de Paris, 21-22 Novmeber, Paris, France

Cohen Bucher E., Herrmann T. H., Chanteloup L., 2019. The socio-cultural interrelationships between dogs and people in the Naskapi Nation of Kawawachikamach, Arctic Week, 9-13 December, Paris, France

Cohen Bucher E., Chanteloup L., Ravel A., 2020. Wellness, dogs, and their keepers. The case of Kawawachikamach and Matimekush-Lac-john, Arctic Change, 1-10 December, Virtual.

Appendix N – Decolonial Research

Comité aviseur jeunesse autochtone developed a tool highlighting the principles and values necessary when decolonizing research