

**Post-Wildfire Morel Mushroom Harvesting and the Production
of Post-Disaster Opportunity in Settler-Colonial Canada**

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Abstract

This thesis explores processes of opportunism and socio-political change following so-called “natural” disasters through a multi-sited case study of the post-wildfire morel mushroom (*Morchella sp.*) harvest in Western Canada. Morels are edible fungi which fruit *en masse* the first spring season following large wildfires in western North America. This work follows harvesters who picked morels after the 2016 Horse River wildfire on Treaty 8 territory (near Fort McMurray, Alberta), and the 2018 Shovel Lake wildfire on Nadleh Whut’en, Stellat’en, and Nak’azdli Whut’en Territories (British Columbia).

Thinking with and beyond the concepts of disaster capitalism and disaster colonialism, this thesis extends analyses of post-disaster change from considerations of states and large corporations to smaller-scale actors. As such, I consider the roles of hobbyist local harvesters, precarious pieceworkers in the wild mushroom industry, Indigenous Guardians of the Land, and forest ecologies more broadly. I demonstrate that while disaster capitalism and disaster colonialism are pervasive in the post-disaster landscape, they are not inevitable. Instead, I argue that post-disaster opportunity is emergent, contingent, and includes possibilities for reworking, resistance, and resurgence.

In this work, I argue that settler-colonial aims to subsume nature produce the ecological conditions which make the commercial mushroom harvest possible. This industry, in turn, disproportionately benefits settler harvesters over Indigenous Nations and forest ecologies. I also demonstrate that the materiality of wildfire memories affects different groups’ capacities to harvest mushrooms, influence others, and define the ethical standards of the harvest. Finally, I examine how settler claims to post-disaster opportunity on Indigenous lands are connected to broader affective “settler common sense” and “white possessive” claims to adventure, freedom and commerce. Together, these findings demonstrate how the concurrent and often contradicting post-disaster opportunism demonstrated by small-scale actors relate to broader politics about natural disasters, environmental politics, resource extraction, and Indigenous governance within Canada and in other settler-colonial contexts.

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1. Introduction: Entering the Blackened Forest

1.1 Introduction

Amidst burnt pine and spruce trees, blackened brush, and charred animal remains in recently burned forests of Western Canada, one can, with a bit of luck, find thick blankets of strange-looking mushrooms popping up, as if by magic, from the ashen soil. These mushrooms can be difficult to find in the burnt forest, and often trick harvesters by fruiting in the most unexpected places. Once they are picked, cooked, and served on a plate, however, they are known as one of the most exciting and delicious delicacies of spring. Depending on who finds these mushrooms, they can represent a means to recover from traumatic wildfire encounters; an entrepreneurial opportunity to earn quick cash and “be their own boss”; a means of chasing freedom and adventure on so called “Crown lands¹”; or a resource which facilitates the assertion of Indigenous sovereignty over unceded Territories. When I entered recently burned forests on Treaty 8 near Fort McMurray, Alberta, Canada in 2017 and 2018 and then again on Nadleh Whut’en, Stellat’en, and Nak’azdli Whut’en Territories in British

¹Crown lands are lands which are claimed by the British monarch, or the “Crown”. A result of the racist doctrine of discovery, these unceded Indigenous lands are claimed to be held by the provincial and federal governments for industrial use in the “public good”. Activities on these lands in the public good include the timber industry, as well as by Canadian citizens for recreational and subsistence uses, such as camping, fishing, hunting, and foraging.

Columbia in 2019, these mushrooms represented the opportunity to study how processes of post-disaster change occur within informal networks and more-than-human ecologies, all in the settler-colonial context of Western Canada.

This thesis emerged from my interest in understanding how local communities and non-local outsiders respond to and change following wildfire disasters in Canada. I first became interested in this topic during the May 2016 Horse River wildfire which burned over 590,000 hectares of forest, led to the evacuation of 80,000 residents, and destroyed around 10% of the structures in the community of Fort McMurray, Alberta. At the time of the fire, I was in Edmonton, a city around 400 km southwest of Fort McMurray, and where most of the evacuees found temporary shelter during the several weeks that they were barred from returning to what remained of their home. As the community came together to support evacuees, international media discussed the connection between the oil sands (where Fort McMurray is located), climate change and wildfire disaster (Kolbert, 2016; Lunau, 2016; Muru, 2016). Locally, just as some Fort McMurrayites spoke about “recovery” and the “strength” and “resilience” of their community, some Edmontonian chefs I knew began to mention the mushrooms they were hoping to find up north the following spring, to eat themselves and to sell in their upscale restaurants. The combination of discourses about climate and environmental degradation, fire, disaster and emergent opportunity planted the “spore” of interest from which this project emerged.

The mushrooms I have followed for three years and which these chefs spoke about are fire morels (*Morchella sp.*). Morels are lucrative and edible mushrooms popular in French and

Eastern European cuisine. These mushrooms are harvested by (primarily) settler² people in Canada and the United States and eaten locally or shipped to Europe and China. For around six weeks during the first spring season following wildfire in northwestern North America, fire-adapted species of morel mushrooms fruit *en masse*, where hundreds of thousands of mushrooms emerge in dramatic flushes on the forest floor (Figure 1).



Figure 1: A freshly picked morel mushroom on NSN Whut'en Territories in June 2019

As I first learned about fire morels from the Edmontonian chefs I knew, the idea that a traumatic wildfire event could produce a delicious—and profitable—opportunity for those

² I define “settler” based upon Emma Battell Lowman and Adam J. Barker (2016)’s conceptualization in the Canadian context, where “settler” is an identity understood in relation and parallel to Indigenous identity and is understood as non-Indigenous peoples who “live on lands that have a pre-existing and undisputable [Indigenous] claim on them” (p.45). In the context of this study, settlers can also be understood heuristically as first-, second-, or third-generation Canadians with European (white) ancestry.

unaffected by the disaster inspired the beginning of this research. In the years since, this research has grown into a multi-sited ethnographic research project which is much broader in scope than my questions about the immediate aftermath of the Fort McMurray wildfire.

Morel harvesters are a varied group. They include transient commercial pickers who travel to multiple burn sites each season to sell morels into an industry where over three million pounds of fungi are traded globally every year (Pilz et al., 2007); settler local hobby pickers; and a smaller number of Indigenous harvesters on whose Territories the morel mushrooms fruit. My initial fieldwork in Fort McMurray focused primarily on hobbyist pickers using morels as a means of emotional recovery from their experiences of the Horse River fire. Following this first phase of research, I had additional questions about the profit-seeking commercial mushroom harvest. I was interested in commercial harvesters after learning how the presence of commercial harvesters affected the ways locals experienced mushroom picking in Fort McMurray (see Chapter 5). These initial findings from my early work fed into larger questions about how “disaster capitalism” (Klein, 2008) could occur on smaller, informal and more entrepreneurial scales (Faas, 2018).

Further, as I learned more about the role of settler-colonial fire management regimes in the production of large wildfires (Boyd, 1999; Kimmerer & Lake, 2001; Lake & Christianson, 2019) and the disproportionate risk that Indigenous nations face in terms of wildfire disaster (McGee et al., 2015), I also became interested in how the settler-colonial context of Canada was related to the commercial viability and socio-ecological impacts of the morel harvest. As it turned out, explicitly considering settler-colonialism in my research led to a flush of related and exciting questions. For example, while considering the settler-colonial context of wildfire disasters in Canada, I increasingly aimed to center Indigenous

thought about environmental issues in my analysis. As I read Indigenous feminist thought on environmental issues, such as the work of Zoe Todd (2017a, 2017b), I began to re-imagine the post-wildfire landscape as one which was imbued with multiple forms of agency, including that of non-humans. Further, as I considered ideas of more-than-human and distributed agency, I was drawn to considerations of affect and affective capacities, which transformed the way I understood the experiences of harvesters I met in the burnt forest. The affective experiences of harvesters in the bush, I would come to understand, are born from their previous experiences of disaster, but also their senses of place³ and connections to the land as Indigenous peoples or settlers (see Deloria, 1973). To answer my subsequent questions about settler-colonialism and more-than-human agency as they related to post-disaster socio-political change, I visited Nadleh Whut'en, Stellat'en, and Nak'azdli Whut'en First Nations' Territories in 2019 where the Shovel Lake wildfire burned in the fall of 2018 (Sharp & Krebs, 2019). Here, I generated additional data to gain a deeper understanding of the broad-ranging opportunity morels represent for different groups in the post-disaster landscape.

The work in this thesis considers wildfire and the post-wildfire opportunity of morel mushrooms across multiple spaces, temporalities, and scales of disaster. My research spans

³ The concept of “sense of place”, referring to individuals’ emotional attachments and relationships with specific landscapes and geographies, is often considered a pre-cursor to the more contemporary affective geographies from which I draw in this thesis. The work of Yi-Fu Tuan (1975; 1997), for example, emphasized the significance of individuals’ perceptions, thoughts, and feelings when considering their attachments to specific places. However, due partly from critiques of the concept of “sense of place” which argue that this concept does not take into consideration the wider social relations of places, including the role of globalization (see Massey, 1991/2010), affective geographies as I discuss in this thesis extend concerns of place, emotion, and affect towards those which examine relational, collective social experiences and politics.

three unceded⁴ Indigenous First Nations' Territories along with Treaty lands; two provinces; three harvesting seasons; two wildfires and several hundred hours of interviews and time spent picking mushrooms with the various actors making overlapping and competing claims to this particular form of post-disaster opportunity. The broad temporal and geographical scope of my research is brought together by a central concern with how settler colonialism—as a history, a contemporary social, political, and economic structure, and as a series of affective atmospheres—affects all “stages” of post-disaster opportunity. I am interested in post-disaster opportunity from its production to the distribution of its benefits, as well as the work that is done to maintain differentiated access to these opportunities and long-term aims to govern them.

In the sections below, I introduce the broad themes I address throughout this thesis and offer the conceptual entry points to understanding how manifold forms of opportunism emerge after disasters. Through these thematic overviews, I elaborate on the three key research questions which underlie this work:

1. How does the settler-colonial context of Western Canada affect the emergence and presentation of post-disaster opportunity?

⁴ “Unceded” lands, which consist of most Crown land in British Columbia, refer to Indigenous Territories which have never been included in a Treaty or other arrangement which turns over ownership or jurisdiction to the Crown. However, Treaty lands, such as those in Alberta, should not be considered “ceded”, as many such agreements involved coercion and misunderstandings when they were signed (particularly in the West), and the conditions and obligations within many Treaties have not been upheld by the settler-state (see King, 2020; Wolfe, 2006).

2. *How does post-disaster opportunity present itself among small-scale actors and beyond the state, and how do these opportunities relate to broader processes of socio-political change?, and*
3. *How do affective and emotional processes contribute to post-disaster opportunism and socio-political change?*

Finally, in section 1.5, I bring these questions together to discuss the central aim of this research: producing an empirical understanding of post-disaster opportunism and change *from below*, where processes of disaster capitalism (Klein, 2008) and disaster colonialism (Bonilla, 2020; Villanueva & Cobián, 2019) are understood and challenged by actors beyond the state. Together, I am concerned what morel mushrooms do—and what they allow different groups of people do—to in the post-wildfire context of Western Canada.

1.2. Wildfire Disasters, Settler-Colonialism, and Post-Disaster Opportunity

The fire-adapted morels which harvesters and I are interested in are ecologically enmeshed with large, hot-burning wildfires in western North America that often become disastrous for communities on the wildland-urban interface (see Chapter 4). The timing of this project is fortuitous. Research on wildfire disaster is growing in relevance and urgency as news from nearly every continent suggests that the world is, quite literally, on fire. From the wildfire which destroyed the town of Lytton, British Columbia almost immediately after a record-breaking heatwave in 2021, to the devastating Australian bushfires at the end of 2019, the fires which destroyed over 900,000 hectares of the Amazon rainforest in the same year, and the devastating fire seasons across western Canada, growing in length and intensity nearly every season (Flannigan et al., 2009; 2013), throughout the time I have studied

wildfires, fire has increasingly represented the ecological and human impacts of anthropogenic climate change and land degradation.

Despite ongoing debates regarding precise definitions of disasters (Perry, 2018), scholars from across disciplines have demonstrated that disasters such as wildfires are not to be considered “natural” (O’Keefe, 1976; Smith, 2006). Instead, most disaster theorists and critical geographers emphasize that wildfires, like other so-called “natural” disasters, are human-caused and the result of socially produced vulnerabilities (Oliver-Smith & Hoffman, 1999; Quarantelli, 2000). In line with this approach, scholars across disciplines have also argued that disasters are produced through processes such as neoliberalism and the breakdown of social reproduction (Katz, 2008; Jackson, 2019), capitalist speculation (Klein, 2008), and colonial dispossession (Bonilla, 2020; Holleman, 2017; Luft, 2016). While this thesis is interdisciplinary and responds to multiple fields, it is centrally concerned with questions of the relationships between disaster, opportunity, and the specific conditions of *settler* colonialism. As such, every chapter within this work addresses a central research question:

How does the settler-colonial context of Western Canada affect the emergence and presentation of post-disaster opportunity?

As Patrick Wolfe (2006) reminds us, settler colonialism “is a structure, not an event” (p. 388). Settler-colonialism is distinct from other forms of colonization through the intent to eliminate and *replace* Indigenous peoples, nations, and societies in order to control and occupy territory (Tuck & Yang, 2012; Veracini, 2011). In the Canadian context, this means that settler-colonialism and dispossession of Indigenous peoples and Nations is not an event which occurred in the 18th and 19th centuries, but rather is ongoing and part of contemporary

federal and provincial environmental and forestry management, Indigenous acts of refusal and settler antagonisms toward this refusal, as well as disaster prevention, recovery, and opportunism.

Wildfire disasters in Western Canada are a useful way to bridge contemporary disaster studies, which focus on structures like neoliberalism and capitalism, with a place-specific understanding of how settler-colonialism and Indigenous authority shape the outcomes of disaster. The structural and affective conditions of settler-colonialism influence disasters throughout their “lifecycle”: from the production of disaster events themselves, through to governing the forms of opportunism which emerge from within the ashes. As such, the settler-colonial present in Western Canada, where pipelines from carbon-intensive oil sands crossing through dissenting Indigenous Territories are state-sponsored (CER, 2019); 95% of land in British Columbia is claimed by the Crown and where old growth forests are at risk of provincial logging (Wood, 2021a); and where Indigenous management of forests and fire has been actively repressed for centuries (Gottsefelt, 1994; Kimmerer & Lake, 2001; see also Chapter 4), is tightly enmeshed with the increase of wildfire disasters.

This thesis, however, is primarily concerned with what happens *after* disaster, when the wildfire is extinguished, and ecologies and economies of post-disaster opportunity emerge from among the ashes. It is during this time that so-called “windows of opportunity” (Birkmann et al., 2010; Brundiers & Eakins, 2018) open, making space for processes of long-term, post-disaster socio-political change. By exploring the post-disaster emergence and harvesting of morel mushrooms, this thesis argues that, just as disasters are produced through interactions between settler-colonial histories, social structures, and the more-than-human

world, post-disaster *opportunity* is produced and captured through these contingent, emergent, and political processes as well.

As I will demonstrate throughout the thesis, morels represent different forms of opportunity for the various groups who make claims to them in the burnt forest. However, this research also demonstrates how the concept of opportunity cuts across diverse literatures, including understanding how more-than-human forest ecologies can be read in opportunistic terms; considering how anticipation of fungal opportunity produces specific affective atmospheres along the mushroom trail and requires specific forms of affective labour to maintain; and how the structural conditions of capitalism and settler-colonialism shape, and are shaped by, localized politics of opportunity. Through a focus on opportunity, this thesis also offers entry points to analyses beyond the post-disaster and mushroom-picking contexts, providing an analytical tool in which to understand broader studies of Indigenous-settler relations, entrepreneurial aspirations and the realities of precarious piecework, and how opportunity is produced by structural *and* affective conditions.”

1.3. Informal Post-Disaster Processes and Broadening the Social Actor

Aligned with my interest in what occurs after disasters, there is a growing body of literature which considers post-disaster socio-political and economic change. Recent work in this area has been dominated by journalist Naomi Klein (2008)’s concept of “disaster capitalism”, where large capitalist actors take advantage of the overwhelming nature of disasters to shift governance towards neoliberalism and private service provision. This concept has been exceptionally generative in terms of understanding how disasters act as “shocks” which allow for intentional and broad-ranging shifts in the political environment. Scholars across disciplines have taken up this concept to discuss the entrenchment of

neoliberalism following various natural disasters, outlining how this process undermines public services and leads to greater inequality within already-stratified communities (Adams, Van Hattum, & English, 2009; Perez & Canella, 2011; Sandoval et al., 2020).

Given the dominance of research examining disaster capitalism, infrastructural recovery, and neoliberalism in post-disaster literature (Klein, 2008; Katz, 2008; Smith, 2006), most of the actors whose agency are accounted for in disaster studies are what some (Birkmann et al., 2010) would describe as *formal*. For these authors, formal actors are defined as nation-states, whereas *informal*⁵ ones include individuals, communities, and non-state or private organizations (Birkmann et al., 2010). For the purposes of this thesis, the category of informal actors in the post-disaster space must be further delineated. As I will demonstrate throughout this thesis, there are clear distinctions between how oil, gas, or logging industries, Indigenous First Nations, mushroom companies, and individual harvesters influence and navigate the morel harvest. Generally speaking, literature describing disaster capitalism focuses on the interactions between nation-states and large corporations, exploring how powerful capitalists interact with the state to entrench or further neoliberal governance. However, critics such as Ben Wisner (2009) have argued that this primary focus on large corporations has obscured broader and less obvious entanglements between neoliberalism and disaster. This thesis responds to this critique and addresses what could be considered an oversight in post-disaster literature, where smaller-scale and more “informal” actors remain

⁵ This definition is, of course, also distinct from the term as it is used in urban geography (see Roy, 2005), particularly as it relates to land claims and planning in the Global South.

under-explored in the field, despite their significance in producing, reproducing, and challenging disaster capitalism and colonialism.

Further, this research demonstrates the importance of research “from below” which examines post-disaster opportunity beyond understanding how disaster capitalism entrenched through smaller-scale politics (Faas, 2018), instead identifying how local peoples respond to and challenge these processes on the ground. With its focus on actors outside the state and large corporations, this project is aligned with an increasing body of work, including from Klein (2018) herself, which emphasizes the important and influential role of “local people’s renewal movements” (Klein, 2008, p. 244). As I will demonstrate, research which examines disaster capitalism and colonialism at this local level is of critical importance when understanding how opportunism, accumulation, dispossession *and* resistance emerge beyond the state, and point to opportunities for alternative post-disaster politics. In other words, I aim to extend upon work which centers informal and grassroots actors resisting or reworking (Katz, 2004) neoliberalization and profiteering after disaster (Faria et al., 2021; Solnit, 2010). As such, the second research question underlying this work asks:

How does post-disaster opportunity present itself among small-scale actors and beyond the state, and how do these opportunities relate to broader processes of socio-political change?

The morel harvest following wildfires is well-suited to highlight the activities of small-scale, informal actors. Mushroom picking, at least in North America, is a relatively niche pursuit, whether those participating are hobbyists (Fine, 2008), mycologists and land managers (Barron, 2017), or commercial harvesters (Tsing, 2015). Because of the limited (but growing) interest in fungi and mushroom picking, these activities tend to operate largely

unseen by the general public and the state. Harvesting clubs, Facebook groups, or even the commercial buying camps set up along Forest Service Roads in the spring are formed of ever-shifting and often very secretive membership. Some pickers are only ever known by pseudonyms, for example, and it is not uncommon to meet someone in the bush whom you will never encounter again. These harvesters are decidedly informal: there are very few regulations from the federal and provincial governments overseeing this activity, and as I will outline in Chapter 7, many pickers actively avoid and resist state involvement in their lives and the mushroom harvest. Of course, commercial morel harvesters are informal beyond their status as non-state actors: the industry draws pickers who are often economically precarious, on uncertain visas, invisibly disabled, among other identities.

I further complicate the relatively simplistic binary of “formal” and “informal” actors in disaster studies literature by considering how Indigenous First Nations engage with and govern post-disaster opportunity on their Territories. First Nations and mushroom harvesters have very different relationships to informality. For example, Nadleh Whut’en, Stella’ten, and Nak’azdli Whut’en are Nations with long legal traditions, governance structures, policies, and forest management programs. These First Nations are also involved in formal government-to-government negotiations with provincial and federal governments. Clearly, NSN Whut’en are distinct in their organization from the informal networks and economies of mushroom harvesters entering burnt forests. However, as I describe in Chapter 7, First Nation jurisdiction is not *treated* as formal on the mushroom trail because of histories of dispossession and contemporary settler claims to “Crown land”. This means that First Nations do not operate in the post-disaster landscape in the same ways as the “formal” settler-state, and often need to perform extra labour to be taken seriously by the mushroom pickers

on their Territories. However, as I will outline in Chapter 7 regarding the successful implementation of an Indigenous-led morel permitting scheme, Indigenous First Nations *find opportunity* from this perceived informality by circumventing the “politics of recognition” (Coulthard, 2014) and directly asserting jurisdiction over resources on their lands without the state’s consent.

Together, small-scale actors, including informal groups of mushroom harvesters and Indigenous First Nations, are often overlooked in scholarship on post-disaster opportunism and disaster capitalism. Examining mushroom harvesters and the Indigenous Nations that aim to govern them, then, questions the hegemony of state and large-scale corporate actors in post-disaster spaces and offers insights into how grassroots activities relate to broader political processes surrounding natural disasters and environmental politics.

1.3.1. The More-than-Human Social Actor

While I am primarily interested in the activities of morel mushroom harvesters, my consideration of informal, small-scale actors in this thesis extends beyond the human. As part of a broader shift towards considering non-human and distributed agency (see Bennett, 2010; Todd, 2016; Tsing, 2012), authors studying disasters have increasingly considered the more-than-human in understanding these events, as well as how they are connected to broader histories of capitalism and colonialism. Many of these authors focus on how disasters occur through assemblages of human and more-than-human elements (Bennett, 2005; Donovan & Oppenheimer, 2015; Wanvik, 2019), and consider how long histories of crisis and disaster affect more-than-human bodies (Brown, 2019; Collard, 2018) and ecologies. Aligned with these authors, I extend considerations of the informal social actor active in post-disaster landscapes by including the more-than-human agency of fire, fungal, and forest ecologies

into analyses of opportunism and change after wildfires, asking a secondary research question, imbedded within my question about opportunism among non-state actors:

How does post-disaster opportunity present itself among non-human actors, and how does more-than-human agency relate to broader post-disaster politics?

In this work, I am interested not in what fire disasters do to forests and fungi, but instead how specific tree species and fungi are themselves *opportunists* within fire ecologies. As I outline in Chapter 4, the unique ecology of *Morchella sp.* fungi acts to *translate* the already-existing ecological opportunism within boreal forests. I apply Boyd, Prudham, and Schurman's concept of the subsumption of nature, which describes capital's attempts to fold natural and biological processes into capital accumulation through both extraction and attempting to control the biophysical characteristics of non-human nature (2001), to the settler-colonial context of Canadian forests. By extending this concept, I also argue that the displacement of Indigenous fire management regimes and failure of the settler state to "tame" fire ecologies together transform the nature of morel opportunity to one which primarily benefits the commercial industry. I also consider how the charismatic nature of morel mushrooms, from their roles as uncooperative labourers in the bush and laboratory (Chapter 4), to their ability to enter harvesters' dreams and spur them on during difficult times in the bush (Chapter 6), contributes to larger structures of capitalism and settler colonialism. Through this analysis, I outline how it is not only important to consider small-scale *human* actors when considering post-disaster opportunism. Instead, I extend analysis to include *more-than-human ecologies* in understanding how uneven histories, structures, and disaster are interwoven between multiple species and assemblages.

1.4. Emotions, Affect, and Disaster

Perhaps as would be expected amongst a secretive and informal group of hobbyist and commercial morel harvesters, many of the mushroom pickers I met along the mushroom trail were gruff men who took pride in being “tough” and, at least at first, uninterested in questions about how they *felt* when picking morels. Nonetheless, harvesting morels, particularly after experiencing wildfire disasters, is an emotional and affectively charged event for pickers (and researchers!). Whether imbued with atmospheres of anticipation, anger, excitement, fear, or sadness, the burnt forest is a place where memories, emotions, and dreams are tightly interwoven with the forms of opportunity available to harvesters.

While a focus on structural critique has at times obscured focus from emotional impacts of disasters (see Chapter 2), there is a significant history of work within the field that recognizes how disasters negatively impact the emotional lives of those who experience them. There is also evidence of the psychological impact of wildfires in Western Canada: for example, Fort McMurrayites who were evacuated from the Horse River wildfire experienced increased rates of post-traumatic stress, anxiety and depression following the disaster (Belleville et al., 2021). While the community-level impact of these wildfires is important context, literature describing psychological impacts focus on state interventions and “psychological first aid” administered by agencies during and after disasters. In other words, these approaches tend to be focused on the activities of states after disasters. However, emotional, and affective processes remain important to understand post-disaster opportunism (Birkmann et al., 2010), despite being under-explored in the literature (see Grove, 2014 as an exception). Thus, in line with my focus on the informal, throughout this work I draw from an interdisciplinary body of literature beyond disaster studies to consider how emotional

experiences and affect relate to post-disaster opportunism. As such, the third research question I address in this thesis asks,

How do affective and emotional processes contribute to post-disaster opportunism and socio-political change?

From the beginning of this research, I have taken a keen interest in how mushroom pickers experienced the harvest and related their experiences picking mushrooms with their encounters (or non-encounters, in the case of non-locals) with wildfire disaster. In this way, I have been aligned with the feminist geographers and political ecologists who have long argued that embodied experiences and emotions are critical to understanding environmental politics, particularly in cases of environmental inequality or crisis (Sultana, 2015, 2021). However, as I became more interested and concerned with questions of distributed agency and the role of more-than-human bodies in the co-production of opportunity, I shifted my attention towards affective geographies to better understand how these reflexive processes related to broader politics after disasters.

Throughout this work, I somewhat promiscuously operate between emotional geographies, with a central focus on the validation of personal and embodied experiences of emotion, and affective geographies, where I address questions of pre-conscious and collective processes along with the capacities of more-than-human bodies (see Bondi et al., 2016 and Pile, 2010 for an elaboration of this debate). Ben Anderson's (2009; 2014) concept of "affective atmospheres" is helpful in my approach of bridging feminist literature concerned with embodied experience with larger questions of collective experiences and non-representational agency. I use the concept of affective atmospheres as an entry point to consider relationships between personal emotions and collective structures of feeling and

actions as they relate to questions of the distribution of morel opportunity. For example, I bridge literature on memory and affect (Curti, 2008) to consider how individual memories of wildfire relate to the collective affective atmospheres and ethical standards of the morel hunt (Chapter 5), or how the individual nighttime dreams of pickers relate to the collective affective labour used to encourage exhausted pickers to return to the bush during the daytime (Chapter 6).

Further, interrogating questions of affective atmospheres, affective labour and post-disaster opportunity also allowed me to make additional connections from the emotional experiences of harvesters on the mushroom trail with broader structural processes in Canada. Throughout this work, I argue that affective capacities, labour, and “settler common sense” (Rifkin, 2013) are key processes which entrench settler-colonial and capitalist claims to post-disaster opportunity throughout the morel harvest. However, because affects are always considered as imbued with potentiality and excess (Anderson, 2006; Massumi, 2002), they also allow me to consider what they do beyond the entrenchment of colonialism and capitalism. As I will demonstrate in Chapter 7, challenges to these affective claims, whether through precarious experiences in the mushroom harvest or direct intervention from Indigenous Guardians of the Land⁶ change the atmospheres of the mushroom hunt, and the possibilities for how this post-disaster activity relates to Indigenous-settler relations in Canada at a broader scale.

⁶ Indigenous Guardians of the Land are groups of on-the-ground members of First Nations who are involved in the direct management of resources and ecosystems on their Territories.

1.5. Challenging the “Inevitability” of Disaster Capitalism and Colonialism

This thesis makes interdisciplinary contributions across several fields, including political ecology, affective and emotional geographies, more-than-human studies, and settler colonial studies. The central and unifying contribution of this work, however, is an empirical account of non-state and small-scale processes of post-disaster opportunism and change, *including and beyond* disaster capitalism (Klein, 2008) and disaster colonialism (Bonilla, 2020; Villanueva & Cobián, 2019).

A growing body of work links disaster capitalism with racial erasure (Pyles et al., 2017) and colonialism (Bonilla, 2020), emphasizing the connections between disasters, capital accumulation, racism, and Indigenous dispossession. In this thesis, I demonstrate how the morel mushroom harvest reflects and entrenches these processes through the commercial mushroom harvest, where wild mushroom companies and commercial harvesters rely on claims of “Crown land” to extract profits and displace sustenance harvesting following disastrous fires. As I outline in Chapter 6, the entrepreneurial aspirations of settler commercial harvesters are intertwined with their “common sense” (Rifkin, 2013; 2014) settler-colonial claims to occupy and extract from Indigenous land without question. Drawing from work on disaster colonialism (Bonilla, 2020; López, 2020; Villanueva & Cobián, 2019; Woods, 2017) and recognizing that Canadian settler colonialism is a distinct process (Barker, 2009; Veracini, 2011), I emphasize that in Western Canada, disaster capitalism at any scale cannot occur without the structural and affective conditions of settler-colonialism.

Critical disaster literature has done the important work to demonstrate that natural disasters are not “inevitable” (Smith, 2006), but rather the result of vulnerabilities produced through capitalism and colonialism. In response, this thesis proposes that disaster capitalism,

disaster colonialism and profiteering at the expense of local communities are not inevitable in post-disaster landscapes, either. The profit-seeking nature of those interested in the morel harvest was what sparked my interest in post-disaster opportunity: clearly, there is post-disaster profiteering occurring through the commercial mushroom industry. However, morel mushrooms represent other opportunities for harvesters, including a way to collectively “make sense” of (Brown & Reavey, 2015) the traumatic memories of wildfires (Chapter 5), and a means to adventure and experience “freedom” on Crown lands (Chapter 6). Further, as I discuss in Chapter 7, the morel harvest is an opportunity for Indigenous First Nations to directly control activities on their Territories through the implementation of a mushroom permitting program, supporting their long-term aims of self-determination and resurgence. Highlighting how these alternative forms of opportunity complicate, entrench and at times undermine processes of disaster capitalism and disaster colonialism is a core contribution of this work.

Through a consideration of the multiple, concurrent, and often conflicting experiences of post-disaster opportunism among small-scale assemblages in the forest, I propose that disaster capitalism and disaster colonialism are not “inevitable”, but rather occur alongside other processes such as recovery, reworking (Katz, 2004), and resistance. Accounts of multiple forms of opportunism within the mushroom hunt together provide a response to Raven Marie Cretney (2017)’s call for empirical work that highlights alternative processes to disaster capitalism and neoliberalization, to support and imagine alternative post-disaster futures. Beyond producing an academic account of alternatives to disaster capitalism and disaster colonialism alone, this work also addresses calls from political ecology and Native studies about the necessity of research which *materially supports* the struggles of Indigenous

Nations. As I outline in the Chapter 3, *Methodology*, and return to at the end of this thesis, I demonstrate how the research process itself can contribute to the grassroots alternatives to disaster capitalism and disaster colonialism. I also highlight where this normative approach to research could take future directions of political ecological work on settler-colonialism, disaster, and opportunity, both within Canada and in other geographical contexts. Finally, while empirically focused on a post-disaster context, many contributions of this thesis, namely a focus on the affective atmospheres of settler-colonialism, a consideration of the ecological and political complexities of a seemingly “sustainable” industry, and an examination of how settlers respond to Indigenous authority, will provide conceptual tools that can be applied to cases outside of disaster studies, including resource management, geographies of leisure, and governance beyond the state.

1.6. Chapter Outlines

Having introduced the burnt forests of Western Canada and outlined the key motivations, questions, and conceptual lenses which underpin this work, it is time to continue along the mushroom trail. To situate the morel harvest within a broader decolonial political ecology framework, the Literature Review (Chapter 2) outlines the theoretical context for this thesis. I explain in detail how and why settler colonialism provides the central analytical lens to understand post-disaster opportunity and synthesize literature from political ecology, affective and emotional geography, disaster studies, and more-than-human social sciences.

Chapter 3, *Methodology*, outlines the multi-sited ethnographic approach I adopted to studying the morel mushroom harvest, and further emphasizes how questions of settler colonialism and the land formed the central analytic in this thesis. I also outline the challenges of working as a settler researcher whose participants are primarily also settlers on unceded

Indigenous Territories and who aims to remain accountable to Nadleh Whut'en, Stellat'en and Nak'azdli Whut'en First Nations. I propose that in order to conduct research ethically, settler researchers should prioritize flexibility and ethical research relationships with community over strict adherence to pre-determined fieldwork plans.

As I will outline in the Literature Review, in addition to the central theme of settler colonialism, each analytical chapter of this thesis provides a unique combination or approach to the secondary conceptual lenses I adopt in this thesis: Neo-Marxism⁷, affective and emotional geographies, and more-than-human geography. Chapter 4, *Producing Opportunity*, adopts a neo-Marxist and more-than-human approach by exploring the long history of fire regimes and *Morchella sp.* ecologies. This hybrid contextual and empirical chapter provides a greater historical and land-based situatedness to the thesis, while interrogating the role of settler colonialism in shifting fire and fungal ecologies towards large-scale flushes of fire morels which support commercial harvests. I discuss the historically and ecologically situated production of post-disaster opportunity through Boyd, Prudham, and Schurman (2001)'s concept of the subsumption of nature, first at the landscape level through settler-colonial fire management regimes, then at the species level, through attempts to "tame" (Prudham, 2003) *Morchella* along the mushroom trail and within scientific laboratories. As such, this chapter argues that settler-colonial, scientific, and harvester

⁷ Neo-Marxism is a broad term which captures literature that incorporates and extends Karl Marx's theory of historical materialist analysis (that is, where "the structure of society and human relations in all their forms are the product of material conditions and circumstances rather than of ideas, thought, or consciousness" (Taylor, 2018, para. 3). As Toscano (2007) summarizes, Neo-Marxist theory emerged following the First World War and includes literature regarding multi-national corporations, anti-colonial struggles and imperialism, feminism, among other themes, all read through materialist concepts including class and capital accumulation.

attempts to subsume nature lead to the contingent but differentiated production of morel opportunity which benefits settler commercial harvesters over Indigenous Nations, communities, and more-than-human natures.

In Chapter 5, *Capturing Opportunity*, I interrogate the affective experiences and capacities of harvesting in the burnt remains of western Canadian forests among different groups of harvesters: locals who have recently experienced the disastrous wildfires, commercial harvesters who travel into burn sites without recent experiences of disaster, and Indigenous harvesters whose recent experiences of disaster are compounded by racist interactions in the bush. Connecting work on affective atmospheres and capacities (Anderson, 2009) with trauma and memory literature (Curti, 2008), I argue that these groups of harvesters are differentiated based on their embodied encounters and memories of wildfire disaster. These memories are stratified spatially, temporarily, and materially (in terms of whether harvesters experienced fire directly, thus holding “fiery” memories, or instead have mediated, “smokey” memories from experiencing wildfire smoke but not fire). I argue that intense and traumatic memories of wildfire, as well as the compounding nature of Indigenous experiences of racism, mediate the capacities of locals searching for mushrooms in the burnt forest, allowing commercial harvesters to dominate and dictate the ethical standards of the morel harvest.

Because of their dominance in the morel harvest, in Chapter 6, *Maintaining Opportunity*, I shift focus to commercial morel harvesters to provide a detailed understanding of how the workers who operate within petit disaster capitalist processes (Faas, 2018) maintain their dominant claims to post-disaster opportunity. Despite their role as disproportionate beneficiaries of the morel hunt and their aspirations of “striking it big time”,

commercial harvesters often face precarious and difficult conditions while harvesting morels. To understand how these conditions relate to processes of post-disaster profiteering, I return to affective and emotional geographical literature. I consider Indigenous thought on the material power of dreams and dreaming to understand how commercial harvesters' dreams—both literal and aspirational—are used to reproduce harvesters to continue to work despite precarity, hunger, and disillusionment. Harvesters' affective labour enables them to pick as many mushrooms as possible for wild mushroom companies while maintaining settler claims to extraction on Indigenous lands.

In Chapter 7, *Governing Opportunity*, I highlight a decolonial alternative to capitalist pursuits of post-disaster opportunity through Nadleh Whut'en, Stelat'en, and Nak'azdli Whut'en First Nations' re-imagining of the post-wildfire morel harvest as an opportunity for Indigenous resurgence and authority. I focus on how settler commercial harvesters responded to NSN Whut'en's introduction of an Indigenous-led mushroom permitting program by outlining how mushroom camps act as mythologized "forts" with unique affective atmospheres and forms of resistance to the permitters. I argue that settler aversion to Indigenous regulation results from the challenge to their 'settler common sense' (Rifkin, 2013) and "white processive[ness]" (Moreton-Robinson, 2015), which are produced and performed within the mushroom camps. On NSN Whut'en Territories, harvesters' attachments to their common sense were weakened along two lines—their positions as precarious workers in a capitalist industry and their ambivalence to the Canadian state. I outline how Indigenous regulation leveraged these fissures, reworking and resisting (Katz, 2004) disaster capitalism and disaster colonialism, to offer protection for local peoples and ecologies and hope for the most precarious of settler workers.

Chapter 8, *Conclusions*, returns to a decolonial political ecology framework to situate the key findings regarding post-disaster opportunism within a settler-colonial context. Aligned with the normative aims of political ecology research (Robbins, 2004), I discuss how alternatives to disaster capitalism be supported through academic research. I address the limitations of my approach to the post-wildfire morel harvest, re-iterate the academic and applied contributions of this work, and suggest avenues for future research, focusing on collaboration and ethical partnerships with Indigenous First Nations.

2. Literature Review: Political Ecology of Disaster in Settler-Colonial Canada

2.1. Introduction

A central concern of this thesis is to examine how, in the Canadian context, disasters and the differentiated forms of opportunity which emerge from them can be traced to the land histories, structural inequalities, and affective atmospheres (Anderson, 2009) of ongoing settler-colonialism. This larger context impacts how disasters are experienced and opportunity is captured by *all* affected actors, including Indigenous peoples and Nations, settler mushroom harvesters, as well as forest and fungal ecologies more broadly. This chapter situates this argument, alongside conceptual tools adopted from human geography's and disaster studies' various "turns", within a broader framework of decolonial political ecology. The contributions of concepts stemming from neo-Marxism, more-than-human geography, and an attunement to emotions and affect help me to understand how various groups of mushroom harvesters experience disasters and opportunity on Indigenous lands.

This chapter is presented in five sections. First, I provide a brief overview of the settler-colonial context, including how it is understood as distinct from other forms of colonialism. I outline how the specificities of settler colonialism relate to the political

economic and affective structures in settler-colonial societies, a theme I develop throughout the remainder of this thesis.

Having provided this context, I shift towards questions of disaster. In the second section, I review early disaster studies literature, exploring what Perry (2018) refers to as the key periods in disaster studies. I review the contributions of the “social phenomena” tradition of disaster studies (Perry, 2018) and introduce the first secondary lens adopted in this thesis as they relate to disasters: Neo-Marxism and a structural critique of capitalism. I demonstrate that the concepts introduced in the “social phenomena” period overlap with those considered in early political ecology and suggest that key limitations in disaster studies can be addressed through a broader political ecological approach.

In the third section, I further connect contemporary disaster studies with a political ecology framework. I outline how political ecology has evolved over time to integrate lived experiences, emotions, and affect into analysis of environmental issues. This section addresses two key limitations in many political ecological approaches to disaster: limited engagement with “marginalized” epistemologies (Sultana, 2021) and an under-examination of what comes *after* disasters. Drawing from Indigenous scholars and thinkers, I re-interpret political ecological approaches to disaster and opportunity in Western Canada.

Section four brings together the conceptual lenses I borrow from disaster studies and political ecology to examine approaches to post-disaster opportunity. I demonstrate how just as disasters are produced through interactions between social structures, the more-than-human world, and colonial histories, post-disaster opportunity is produced through these contingent, emergent, and political processes as well. I outline key narratives describing and critiquing stratified post-disaster opportunities, including resilience, disaster capitalism and

disaster colonialism, and anti-capitalist reworking or resistance. I highlight how a focus on small-scale and grassroots action is critical to fully understand the manifold forms of post-disaster opportunity, particularly in settler-colonial North America.

In the fifth and final section, I briefly justify using fungi to study disaster and opportunity. I highlight recent anthropological and political ecological work about fungi and outline how fungi offer a rhizomatic (Deleuze and Guattari, 1988) means to draw together disparate land histories and disaster literatures and offer a new perspective on understanding post-wildfire environmental and political change in Western Canada.

2.2. The Specificities of Settler-Colonialism

Throughout this thesis, I discuss the settler-colonial context of western Canada and adopt a decolonial epistemology in my approach to data collection, analysis, and writing (see *Methodology*). I discuss how settler-colonial histories affect forest management practices, wildfire ecologies, and the production of morel mushrooms in Chapter 4. This section focuses instead on clarifying what, precisely, the “settler-colonial context” and a “decolonial” framework mean throughout the following chapters. From here, and while recognizing that settler colonialism itself has been considered a disaster (López, 2020), we will return to questions of so-called “natural” disasters.

Settler colonialism is increasingly understood as a distinct process and structure (Wolfe, 1999) from colonialism. That is, in settler-colonial places like Canada, external colonial powers aim not only to dominate and extract resources and labour to benefit the metropole, but also to settle and *replace* Indigenous people. This relationship, as many (Banivanua-Mar & Edmonds, 2010; Verancini, 2010; Wolfe, 1999, 2006) have argued, is

different from the colonial relationship, where dominant forces are primarily concerned with the ongoing extraction of resources without requiring that local peoples are erased. Settler colonialism, then, is an ongoing project of producing and claiming “new” places and imaginaries, all which necessarily require that local Indigenous peoples are dispossessed.

This distinct project to replace Indigenous peoples, cultures, and laws produces unique political-economic and social conditions, where settler societies are based upon the continuance of their claims to ownership of Indigenous lands. The political-economic and social implications of settler colonialism are wide-ranging (see Banivanua-Mar & Edmonds, 2010; Verancini, 2010), but, as Tuck and Yang (2012) and Wolfe (2006) argue, all such struggles are centered around the question of the land. In this work, I am most interested in how this structure of replacement includes the replacement of Indigenous laws, forest management knowledge and practices, and jurisdiction over the management of First Nation Territories. This work, and its focus on informal assemblages of mushroom harvesters, also supports the understanding that settler colonialism is not just a process involving the state, but rather includes *all* settlers who live on Indigenous lands and benefit from ongoing dispossession. As Barker (2012) summarizes:

Settler colonialism is not a process driven merely by elites; nor does settler colonisation occur exclusively in and between spaces of strategic importance. Settler colonialism occurs everywhere that there are settler collectives, and it occurs constantly. (para. 19)

Thus, the structure of settler colonialism is relevant at all “levels” of disaster research: from work which explores disaster capitalism and the actions of state in managing so-called “Crown lands”, to that which follows mushroom pickers into recently burned forests.

Finally, as I will elaborate in later chapters, the structure of settler colonialism includes specific “structures of feeling”, atmospheres (Anderson, 2009), and collectively understood myths and claims about land, property, and post-disaster opportunities. As Eva Mackey (2014, 2016) argues, settler societies are not only legally, but *emotionally* predicated on a sense of “certainty” regarding the settler-state’s claims to land. These “settled expectations” (Mackey, 2014) are part of what Aileen Moreton-Robinson (2015) refers to as the “white possessive” and Mark Rifkin (2013) refers to as “settler common sense”: taken-for-granted atmospheres and myths which perpetuate and entrench settler claims to land and hegemony. As I elaborate in the sections and chapters which follow, this thesis aims to bring together literatures discussing the emotions and affects associated with settler colonialism with those which examine them following disasters. Drawing from work on the affective and emotional elements of settler futurity (Mackey, 2014) helps to understand the kinds of post-disaster futures imagined by different groups with claims to the opportunities presented by the post-wildfire morel harvest.

2.2.1. Situating Post-, Anti-, and De-Colonial Literature

Unsurprisingly, there are significant overlaps between post-, anti- and de-colonial literatures. However, as Tuck and Yang (2012) argue, *postcolonial* theory, which emerged from contexts where the metropole is spatially distinct from the colony, is insufficient to understand the conditions and struggles associated with settler-colonialism. This is because, as Tuck and Yang (2012) discuss, settler-colonialism is fundamentally about contested land, along with the dispossession and “disappearing” of Indigenous life, ontologies, and sovereignty, in order for settler society to “make a place their home” (p. 6). Put differently, as Strakosch and Macoun (2012) and Veracini (2011) argue, settler states only *aim to appear*

postcolonial, where the process of domination and dispossession has occurred in the past, in order to continue domination as “liberal” or “multicultural” societies. For these reasons, postcolonial literature is not sufficient to fully examine settler-colonial phenomena including wildfire disasters in western Canada.

Alongside postcolonial work, anti- and de-colonial literature has emerged from contexts including and beyond North America, and often draws together collective struggles against the ongoing histories of European colonization (see Kempf, 2009). While anti- and de-colonial literature includes work on contexts outside of settler-colonialism, I draw primarily from literature stemming from Indigenous and allied scholars writing from so-called Canada, the United States, and Australia (while acknowledging that each of these settler-states has unique histories and conditions (Barker, 2012)). While anti- and de-colonial literatures are both broadly interested in “resistance movements directed against colonial and imperial powers” (Tyner, 2006, p. 11), both terms have been critiqued for becoming too broadly defined. Critics have argued that both anti-colonialism (Hart, 2016, as cited in Carlson, 2016) and decolonial theory (Tuck & Yang, 2012) have been co-opted within larger activist and academic projects of anti-racism and social justice. While often well-meaning and aligned with aims of justice and unified movements across differing contexts (Dei & Asgharzadeh, 2001), critics have argued that allowing these terms to be evoked in such broad contexts have allowed them to be utilized in ways which entrench the settler-colonial status quo.

I utilize the term “decolonial” in this thesis in reference to Eve Tuck and Wayne Yang (2012)’s article “Decolonization is not a metaphor”, where the authors explicitly state that decolonization is distinct from other social justice movements in that it is primarily concerned

with the return of land to Indigenous peoples. Engaging with Indigenous scholarship and thought is vitally important to understand disasters in settler-colonial contexts. However, as Todd (2021) describes, evoking Indigenous thought without participating in decolonization as described by Tuck and Yang (2012)—that is, through supporting specific Indigenous Nations’ land rights, jurisdiction and self-determination—is not sufficient to address the conditions of ongoing dispossession and colonialism inside and beyond the academy. As such, I chose to utilize the term “decolonial” throughout this thesis, both for consistency and to reference Tuck and Yang (2012)’s work which influenced my research process approach to working with Indigenous First Nations (see *Methodology*). While I utilize the term “decolonial”, I draw upon a large body of self-described anti-colonial literature which supports and aligns with Tuck and Yang (2012)’s key argument.

I will discuss further how the specific conditions of settler-colonial Canada influence the morel harvest and post-disaster opportunity in subsequent chapters. In the remainder of this chapter, I will outline my theoretical framework which can be broadly understood as a decolonial political ecology of disaster opportunity. Throughout, I will emphasize how the inclusion of settler-colonialism into analysis is important to understand the ways disasters *and* post-disaster opportunity are produced, experienced, and distributed.

2.3. Early Approaches to Disaster

Having introduced the settler-colonial context of this work, this section attends to the contributions and limitations of early disaster studies literature. I begin by briefly summarizing the work within what Perry (2018) refers to as the “classical” and “hazards-disaster” traditions within disaster studies, describing how these traditions were fairly limited in their critical analyses of the social causes of disasters. Next, I discuss the “social

phenomena” (Perry, 2018) period, which was influenced by Marxist and neo-Marxist scholarship and included a critique of capitalism’s role in the production of disasters. It is within this tradition where it became common for geographers and disaster researchers to claim it is plainly *incorrect* to use the term “natural disasters” (O’Keefe, 1976), including Neil Smith’s argument that “there’s no such thing as a natural disaster” (2006).

The assertion that disasters are not natural events does important work to bring to the forefront how uneven social vulnerabilities lead to avoidable disaster impacts within communities and conceptualize means of reducing these vulnerabilities. Thus, the theoretical and empirical reasoning behind downplaying the natural in natural disasters is justified as part of projects to understand the way social structures produce unequally experienced disaster events and exacerbate their impacts. However, despite the ongoing utility of neo-Marxist lenses when understanding disaster, I identify two key limitations within the “social phenomena” period: first, an under-examination of the emotional and affective elements of disaster, and second, that excluding “nature” from disasters overlooks the role of non-human agency in the production of these events. I conclude by proposing that addressing these limitations is possible through a broader reading of disaster, as is offered by later work from political ecology.

2.3.1. Understanding the Key “Traditions” in Disaster Studies

The definition of disaster has varied widely over time in the social sciences, reflecting researchers’ ontological and epistemological orientations (Chmutina & Meding, 2019). As Perry (2018) discusses, the definition of disaster within the social sciences has roughly transitioned from a “classical” period to a “hazards-vulnerability” period, to a contemporary “social phenomena” period. These periods are overlapping and without absolute distinction

but nonetheless offer a helpful framework in which to parse the underlying agreements within and disagreements between approaches and understand more recent debates within the disaster literature.

As Perry (2018) describes, the classical period of disaster studies was defined by viewing disasters as events and did not involve much interrogation about the underlying agents driving disaster. Because the research was led by disaster researchers and social psychologists, definitions of disasters not only emphasized the event itself, but the subsequent disruption of social life and the impact of disasters on individual and societal “capacities” (Fritz, 1961; Killian, 1954; Wallace, 1956). Authors in the “classical” tradition were focused on defining disasters based on their role in generating impacts on social functioning, with subsequent permanent social change and/or recovery efforts to return to “normal” (pre-disaster) social life (see Cisin & Clark, 1962; Drabek, 1986). While often practically helpful and adopted by disaster agencies, work in the classical period was limited in its analysis of the social causes of disasters, as well as the role of embodied experiences and non-state actors in the disaster and recovery contexts.

In the second period identified by Perry (2018), the “hazards-disaster tradition”, the *cause* of disasters was taken into account, and deemed “natural hazards”, including earthquakes, weather events, floods, and wildfires. These writers emphasized agents external to human activities as causes of disasters and placed less emphasis on the events’ impacts on social systems. Perry (2018) argues that the characteristic that connects definitions in the hazards-tradition is the idea that disasters emerge from the intersection of hazards and human systems. While some authors describe this intersection as a result of poor technical planning and “development” which can be solved through technical improvements to infrastructure

and policy (Cuny, 1983 as cited in Barrios, 2017), more recent theorists within the hazards-disaster tradition have placed significant focus on outlining the relationship between “vulnerability”, “hazards” and “risk” (Cutter, 2005; Blaikie et al., 2005). The three “traditions” in disaster studies are not strictly chronological; many authors within disasters studies and geography continue to work within hazards, risk, and uncertainty-based frameworks (for example, see Hall & Solomatine, 2008), as it tends to align well with work which applied quantitative modelling approaches to disaster. Further, due to an increasing emphasis on social vulnerabilities (see Wisner & Luce, 1993), some “hazards-disaster” literature overlaps conceptually with what Perry (2018) refers to as the “social phenomena” period.

The social phenomena tradition has come about from the work of human ecologists, anthropologists (Oliver-Smith & Hoffman, 1999), and other qualitative social sciences. The period represents what Williams (2008) describes as the “social” end of the “pendulum swing” in disaster studies, where human agency and inequality is deemed nearly entirely responsible for disasters and the role of nature is significantly de-emphasized. Thus, with this shift toward viewing disasters as social phenomena, it is increasingly common to view disasters, including those which involve interactions with what would be deemed natural hazards, as events which are the result almost entirely of social structures (Julca, 2012; Quarentelli, 1992) or “contradictions” (Davis, 1998). While critiques of capitalism, neoliberalism and inequality within the social phenomena tradition of disaster began to increase in dominance in the 1990s, notably with Mike Davis (1998)’s work on disasters in Los Angeles or, Ben Wisner (2001)’s work on economic power and vulnerability, a

significant body of influential work in this area emerged following Hurricane Katrina in New Orleans in 2005.

It is within this context that Neil Smith (2006) argued that “there is no such thing as a natural disaster” to highlight how the racial and class disparities from Katrina were the result of “social calculus” (p. 1) related to racism, economic inequality, state-supported fossil fuel extraction, and the relationship between government and capitalist developers in New Orleans. Together, these writers focused on issues around accumulation, capital, and neoliberalism as a way of ensuring disasters are not seen as “inevitable” (Smith, 2006) and to highlight the ways these events “scour” the social landscape (Katz, 2008) and “cut deeper” already-existing social, racial, and economic inequalities. This work aligns closely (and often overlaps) with much early work in political ecology which aims to understand how capitalist processes and economic inequality impacts environmental conflict.

Despite the overlap in an interest in capitalism and neo-Marxism between the “social phenomena” period of disaster studies and political ecology, there are two key limitations of disaster studies approaches which are relevant to this thesis. First, despite that disaster studies emerged from social psychology and community psychology origins, research examining the emotional and affective experiences of disaster has been relatively less developed than that focusing on broad “psycho-social” community-level effects which are related to psychological disorders and influence societal functioning (WHO, 2013). These framings were useful in identifying where awareness, evacuation, and relief procedures could be improved upon to reduce disaster impacts (WHO, 1992). However, they are more positivist in epistemology and focused on formal psychological disorders than recent relational literature which focuses on the politics of emotional and affective encounters with disaster.

As such, these psycho-social framings are less helpful to incorporate lived experiences into analysis, as well as aims to account for the political potential of non-representational affects (Massumi, 2002; Thrift, 2004) in producing the conditions which lead to disaster. While feminist-Marxist work often does focus on the role of lived experience (Katz, 1996; Lewis, 2016), much early work in disaster studies did not acknowledge that disasters, like environmental conflicts, are structural, political *and* emotional events.

Second, the shift from a focus on hazards and the role of “nature” in producing disasters towards a focus on socially produced vulnerability has meant that the agency of non-human forces has been excluded from analysis. As Williams (2008) argues, “As the pendulum swinging between these disciplinary poles now favors the social over the physical, the role of the environment in disaster is obscured” (p. 1125). Excluding “nature” entirely, then, also obscures ontologies of nature which consider non-humans as active agents in the production of ecologies, histories, and disaster.

The critical lens of Neo-Marxism within the “social phenomena” period will help us to begin to understand the commercial morel harvest in the following chapters. However, to answer my questions about the roles of emotions, affect, and non-humans in the production of opportunity following western Canadian wildfires, critiques from early disaster studies must be extended. In the next section, I will argue that later interventions from political ecology, particularly those from feminist, more-than-human, and decolonial lenses, strengthens the critiques from the “social phenomena” tradition, equipping us with a robust set of conceptual tools with which to approach the post-wildfire landscape.

2.4. Political Ecological Approaches to Disaster

Overlapping with literature emerging from disaster studies, early political ecological work mirrored concerns about the role of structural conditions and capitalism in the environmental issues. Here, I propose that some of the key limitations of early disaster studies—such as the primary focus on psychological impacts instead of embodied experiences and emotions, and a complete exclusion of “nature” from analysis—can be addressed through contemporary political ecology approaches. I discuss how emotional and affective geographical approaches to disaster brought emphasis on distributed agency, and alongside this, a turn to the more-than-human, in order to “correct” for what Williams (2008) describes as an obfuscation of the role of the environment in the production of disaster events. I add that the *near-complete* removal of so-called nature from our understanding of disasters, namely the agency of more-than-human beings, centers a European ontology of nature which is increasingly being challenged through Indigenous scholarship (Todd, 2016) which (Western) political ecology and more-than-human geography alone cannot address.

2.4.1. Evolution of Political Ecology frameworks

Political ecology is a broad and often nebulous field, which Paul Robbins (2015) has described as having a “notorious lack of definition” (p. 89). Nonetheless, political ecological frameworks aim to “combine the concerns of ecology and a broadly defined political economy” (Blaikie & Brookfield, 1987, p. 17) to understand relationships between the environment and human societies, and how these interactions relate to uneven environmental, social, and political outcomes. As Robbins (2004) describes, political ecology is to be understood in relation to what is referred to as “apolitical” ecology. From this perspective, political ecology interprets environmental outcomes in relation to societal structures and

inequalities, questioning how broader processes of capitalism, globalization, and colonialism contribute to environmental injustice, ecological degradation, and disasters. Given the strength of political ecology frameworks in understanding the social and political drivers of environmental outcomes, it is no surprise that this approach has affinities with hazards and disaster research (Westcoat, 2015) and has been adopted with respect to various natural disaster events, including floods (Ajibade & McBean, 2014; Pelling, 1999; Ranganathan, 2015), storms and tornadoes (Donner, 2007), and wildfires (González-Hidalgo et al., 2014; McManus, 2021).

Because political ecology is broad-reaching and promiscuous in terms of the fields it critiques, adapts, and borrows from, the field has experienced several evolutions in the decades since the term was coined (Robbins, 2015). Early political ecological work emerged from work combining environmental concerns with political economy, and in response to the popular recognition of environmental crises in the 1960s and 1970s. As such, political ecological work from this period focused on structural critiques of accumulation and capital and often adopted Marxist framings to understand environmental conflicts, inequalities, and resource use (Leff, 2015). Structural critiques of capital, and Marxist (or neo-Marxist) approaches have remained within political ecology and often overlaps with work in the “social phenomena” period of disaster studies (Perry, 2018).

As political ecology has expanded as a discipline, additional perspectives have been included in political ecological analysis, and these perspectives are increasingly adopted in studies of disaster. Feminist political ecology offered significant contributions to political ecology, with a focus on how gender and patriarchy related to environmental outcomes and access to resources (Rocheleau et al., 1996). Beyond critiques of gender, feminist political

ecology has shifted focus towards post-structural analyses of emotion, drawing upon work from across the social sciences which attended to everyday and embodied experiences, as well as feminist or “standpoint” epistemologies (Haraway, 1988). As Farhana Sultana (2021) outlines, a focus on lived, embodied experiences of environmental interactions emerged in the 1990s and took “critical stances on capitalism, patriarchy, globalization, extractivism, enclosures, colonialism, development, and various forms of interconnected oppressions and injustices” (p.157). As I outline in subsequent chapters, a focus on lived experiences and interconnected injustices is key to my approach to understanding post-disaster opportunity. While most morel mushroom harvesters are men, I have nonetheless adopted a feminist political ecological and geographical approach to emphasize how their lived and embodied experiences—of opportunity, precarity, trauma, disability, relations to land and racism, among others—influence the way these pickers navigate post-wildfire ecologies.

Emerging from feminist work and alongside the “emotional turn” (Bondi et al., 2016) in geography and aligned social sciences, Sultana (2015) coined the term “emotional political ecology”, which she described as including feminist political ecology, resource management, and emotional geography. Of course, Marxist, feminist, and emotional political ecologies are not separate literatures. For example, in Chapter 6, I draw from generative literature which crosses all three concepts, such as work on emotional or affective labour (Hardt & Negri, 2005; Singh, 2013). As Gonzalez-Hidalgo and Zografos (2020) outline, work within emotional political ecology is very broad in focus and theoretical basis, as well as in each approach’s optimism or pessimism with respect to what emotions *do* in politics.

Similarly, I am concerned with what emotions and affect *do* in post-disaster contexts, and how emotions and affect can delineate the experiences of difference groups in the post-

disaster landscape, as well as the boundaries of differing claims to post-disaster opportunity. As such, while I draw largely from affect theory in this thesis (Anderson, 2009; Hardt, 1999; Massumi, 2002), I focus less on the distinction between emotions and affects themselves than those involved in debates about their precise definitions and utility (see Pile, 2010). This said, political ecological work which considers affective and embodied experiences of the environment (Hayes-Conroy & Hayes-Conroy, 2013) provides a very helpful way to connect a concern with affect and emotions alongside a framework which considers agency outside the human. Within this context, the broad-ranging and promiscuous nature of political ecology also allows me to draw upon work which is focused on trauma and memory (Curti, 2008), thus linking feminist concerns with lived experiences with trauma studies and an attunement to broader affective processes.

2.4.2. Understanding Disaster through Feminist, Emotional, and Affective Political Ecology

In a shift from its origins in psycho-social research, where concepts of community resilience and mental health first aid have dominated, disaster literature has increasingly been concerned with the role of embodied experiences and emotions in the politics of disaster. Aligned and often overlapping with feminist political ecology, recent work on disasters have extended beyond structural critiques of capitalism and inequality and followed instead the work within the emotional and affective turns in geography and social sciences (Anderson, 2014; Bondi et al., 2016; Pile, 2010). This has been borne from two related-but-different threads of thought: feminist geographical disaster research which emphasizes the emotional and firsthand experiences of disaster (see Adams-Hutcheson, 2018; Rushton et al., 2021), as

well as shifts toward post-structural, relational ontologies and a focus on bodily affects (Massumi, 2002) and affective atmospheres (Anderson, 2009, 2014; McCormack, 2015).

Key work in affective geography has followed Ben Anderson's work on "affective atmospheres". As Anderson (2009) suggests, affective atmospheres can bridge the gap between geographies studying emotion and those studying affect, because while atmospheres are collective and thus "not reducible to individual sense experience", they are nonetheless "revealed" (p. 145) and influenced by emotions and can be experienced in ways which are "intensely personal" (p. 80). Because of the way this concept offers a means in which to relate individual feelings with broader affective structures of feeling, research following atmospheres has been helpful in describing atmospheres of emergency (Anderson & Adey, 2011; Anderson, 2014) and anticipation of disasters (Linnell, 2019), where the collective feelings of anticipation of disaster or crisis can, in turn, facilitate various political shifts, such as securitization. Further, Blanche Verlie (2019) writes of climatic-affective atmospheres to "account for how atmospheric affects both produce and emerge from the affected atmospheres that constitute climate change" (p. 3). This concept offers a means in which to understand how climate change can linger and affect the atmospheres and experiences of so-called natural disaster events, including wildfires. Post-disaster landscapes and places are also described in affective terms, demonstrating the connections between how post-disaster places feel and processes of recovery (Cloke & Conradson, 2018; Martini & Buda, 2020).

Work linking affective atmospheres with disasters has also demonstrated how these processes are related to structures of race, gender, and colonialism. Roberto Barrios (2017), specifically, demonstrates how a focus on affect (following Massumi (2002) and Spinoza (1994)) is key to understanding the experience of disasters and post-disaster places through

several case studies in New Orleans and Mississippi. Barrios (2017) describes disasters impacting the “ecologies of affect”, or “the connection between the ethnicized, racialized and class-based relations involved in making [New Orleans’] built environment and social order and embodied sensibilities” (p. 121). For Barrios (2017), studying affect allows for greater interrogation of the dynamics and experiences of power through and following disasters:

What is particularly interesting about disasters is how the extensive disruption to the ecologies where bodies, affect, and emotions manifest generates moments when disaster survivors reflect on what—for Massumi—is unqualified intensity; that is, they think about and bring into discourse that which ordinarily is sensed but not qualified or reflected upon. (p.46)

This insight reflects what Gonzalez-Hidalgo and Zografos (2020) argue regarding the integration of emotions and affect into political ecological analysis more broadly. Gonzalez-Hidalgo and Zografos (2020) suggest that affect and emotions are drivers and hinderances of political power in environmental conflicts, and so identifying where the “political” lies within emotional research is critical to understanding broader processes in socioecological relationships. Including affect and emotions into analysis, particularly during disaster, can provide better understandings of the political processes during and following these events.

Importantly, as literature studying the affective elements of disasters shifts the focus of analysis, it continues to connect these affective encounters and atmospheres with broader social, economic, and colonial temporalities. For example, Greg Beckett (2020) explicitly links his work in Haiti to social vulnerability literature, producing the terms “ordinary disasters” and “atmospheres of crisis” to demonstrate how the “weight” of the neoliberal state and international aid apparatus allows for repeated and “routine” ordinary disaster events, thus continuing affective atmospheres of crisis that “envelop” the everyday lives of Haitians (pp. 88-90). In this way, the affective elements of disasters are enmeshed with the broader

structural surroundings and help produce the conditions necessary for both ongoing crises along with disaster events. Beckett's work provides the language to connect the affective atmospheres of settler colonialism to the more immediate atmospheres of wildfire disaster and recovery. His work demonstrates that the specificities of the settler-colonial context influence affective and emotional life prior to, during, and after disaster. I elaborate upon this argument in Chapters 5 and 6 by demonstrating how Rifkin (2013)'s "settler common sense" and Aileen Moreton-Robinson (2015)'s "white possessive" relate not only to everyday life, but also are entwined with the ways settler harvesters understand and make claims to post-disaster opportunity. Along with this focus on affect(ive bodies), however, comes attentiveness to distributed agency and assemblages, paving the way for research which considers disasters outside of their relations to human societies alone.

2.4.3. Examining Disasters through More-than-Human Political Ecology

As disaster studies literature has shifted focus towards affect and affective bodies, there has been an accompanying shift towards considering disasters as assemblages of human and non-human elements (for example, see Donovan, 2017). Early work describing disaster events as assemblages included Jane Bennett (2005)'s work on outlining the more-than-human network of agency involved in the 2003 blackouts in North America. Following this, assemblage approaches have been adopted to better understand earthquakes (Angell, 2014); volcanoes (Donovan & Oppenheimer, 2015); and, notably, the aftermath of the Horse River wildfire (Wanvik, 2019).

Thinking with assemblages and affect⁸ has also led to authors within disaster studies to follow the more-than-human or post-humanist turn in the social sciences and challenge the “nature-culture distinction” on which most disaster literature is founded (van Riet, 2021). For example, authors examining the effects of nuclear disasters are interested in the role of non-humans (including machines and matter) in the production of these disasters (Abbott, 2016), as well as the more-than-human effects of radiation and toxicity. Beyond merely explaining the ecological impacts of these disasters, however, more-than-human disaster researchers are interested in how the relationships between people and ecologies shift following disaster events. For example, Kate Brown (2019) discusses the large number of plants and animals experiencing radiation following the Chernobyl nuclear incident, and is concerned with how people engage, interact, and “read” the imprints of ongoing crises and disasters on non-human bodies.

Perhaps because of the complex socioecological relationships between forest management regimes and fire ecologies (see Chapter 4), wildfires are a common disaster approached through more-than-human lenses (Booth & Williams, 2014; Wanvik, 2019). For example, Blanche Verlie (2021) uses more-than-human analysis to consider the shared experiences of smoke inhalation for humans and non-humans following Australian bushfires, and to connect these shared and embodied experiences of (smoke-filled) breath and respiration to climate justice which extends beyond human lives. In parallel to Verlie’s more-

⁸ Bruno Latour (2005)’s actor network theory (ANT) has also been prominent in the “lively turn”, including in Anna Tsing (2010, 2012)’s work, and in work within disaster studies (see Simatele & Katanha, 2019). However, this thesis approaches questions of distributed agency and affect from a Deleuzian perspective (see Müller, 2015), which Müller & Schurr (2016) have argued is more relevant for understanding changes following “rupture” or “events”.

than-human argument, in Chapter 6, I discuss how the specific embodied experiences of wildfire smoke are key to understanding the affective and mushroom harvesting capacities of different groups of harvesters along the mushroom trail.

Finally, recent more-than-human work in disasters has allowed for longer temporal considerations than what is the norm for disaster studies research. For example, Rosemary-Claire Collard (2018) highlights the “slow, slow, quick” effects of capitalism, ecological crisis and disasters through a long historical account of the entanglement between sea otters, colonial rule, petro-capitalism, and conservation. Of course, closer to the field sites visited for this research, many Indigenous and allied scholars have taken a long history approach to understanding disasters beyond the human. Many, for example, argue that colonialism itself is a disaster (Bonilla, 2020; Woods, 2017), and specifically settler colonialism with respect to the extraction of oil in Treaty 8 lands (Willow, 2016). In this sense, the large body of literature which explores the more-than-human relational harm from oil extraction around Fort McMurray (Baker, 2021; Gross, 2021) and pipelines crossing North American is of critical importance to post-humanist conceptualizations of disasters (see Todd, 2017a). A flexible political ecological framework of disasters that is attuned to lessons from more-than-human geographies and Indigenous thinking allows for the inclusion of broader understandings of the social and longer temporalities into disaster studies. Given that wildfire disasters in Western Canada are partly due to the change in human-environment relations associated with Indigenous dispossession and settler colonial forest management (see Chapter 4), explicitly integrating the agential capacities of non-humans in both present-day and historical terms is key to the grounded-to-the-land analytical approach I adopt in this research.

2.4.4 Limitations of Political Ecology Approaches to Settler-Colonial Disaster

Despite overlaps and synergies between political ecological and decolonial scholarship, political ecological research and frameworks, particularly when utilized by Western researchers, have been critiqued for failing to integrate decolonial or marginalized perspectives (Loftus, 2017; Sultana, 2021), or for conducting research which does not benefit the peoples who are participants of such research (Walker, 2007). While I discuss the latter issue in more depth in the following chapter, I suggest here that looking beyond political ecological frameworks and drawing from Indigenous and allied scholarship can help strengthen this approach when interrogating disaster and post-disaster processes in settler colonial contexts.

Contemporary disaster researchers and political ecologists can (more or less) agree on the primarily human-caused, social nature of disasters. However, this clear distinction between the social and nature does not necessarily represent the subjective experiences of those who have encountered disasters (Massazza et al., 2019) particularly within Indigenous and non-Western communities (Quilo et al., 2015). Settler colonialism leads not only to increased disaster vulnerability for Indigenous communities: as part of its project of replacement, settler colonialism also displaces and often criminalizes Indigenous ontologies, epistemologies, laws and practices with respect to human-environment relationships. More-than-human geographies have helped to re-integrate the agential role of more-than-humans in disaster events. However, many of these Western lenses do not acknowledge that Indigenous thought and scholarship has already provided challenges to the nature/social binary (Todd, 2016), and that Indigenous understandings of disasters and risk are often treated as being merely a complement to Western perspectives (Griffin & Barney, 2021).

Literature which considers Indigenous thought, practice and law alongside differential vulnerabilities to disaster emphasize the importance on Indigenous self-determination in managing ecologies and thus reducing disaster risk long-term (Dicken, 2017). In summary, the marginalization of Indigenous knowledge does not only affect the occurrence of disasters, but also the ways these crises can be addressed. In settler-colonial contexts, political ecological frameworks of disaster are limited when they do not consider questions of Indigenous ontologies of nature, and how these ontologies relate to sovereignty, environmental management, and ongoing land struggles.

Finally, as outlined above, much of the political ecological literature about disasters questions the structures which precipitated these events. This thesis is primarily concerned with what occurs *after* disasters, thinking beyond the conditions before and during disasters, and instead about longer-term opportunities and processes of change in their wake. As I will discuss in the following section, considering disasters within the broader geographical, temporal and political context of settler-colonialism and allied with decolonial projects to return land to Indigenous peoples (Tuck & Yang, 2012) helps to shift our analytical focus from one which is concerned with the production of disasters, to one which is concerned with the possibilities that emerge *after* these events.

2.5. Understanding Post-Disaster Opportunity

The previous sections have outlined how a decolonial political ecology framework and the contributions of geography's various "turns" can elucidate the nature of disaster events in Western Canada. Here, I shift focus from the causes of disasters and their immediate impacts to the possibilities of longer-term change following disasters, as well as the manifold forms of opportunity and opportunism which emerge in the post-disaster

context. I begin with an overview of key literature from within disaster studies which describes post-disaster “policy windows” and “windows of opportunity” to provide a broad context for work in this area. I borrow from across disciplines and problematize the key narratives of post-disaster opportunity which emerge in disaster literature and situate the notion of post-disaster opportunity within a settler-colonial context. Specifically, I explore what *kinds* of opportunity are available after disasters, and *to whom*, by exploring key narratives in post-disaster change literature: resilience, disaster capitalism, and modes of anti-capitalist and decolonial reworking and resistance. As I will explore in the later chapters of this thesis, each of these narratives of post-disaster opportunity are present among those who are entangled with the morel mushroom harvest.

2.5.1 “Windows of Opportunity and Policy Windows

Perhaps due to a proliferation of modelling which predicts ever-more disasters with anthropogenic climate change (IPCC, 2021), research in disaster studies has increasingly become future-oriented. Alongside work on climate adaptation, recent work in disaster studies has involved an emphasis on recovery, resilience, and identifying processes of change following disaster events. Collectively, these authors describe disasters as events which create a “window of opportunity” for long-term political, social, and environmental change. Explicitly or implicitly, these writers view disasters, and the rupture they create in the everyday lives of communities, as means for structural change to occur, for better or for worse⁹.

⁹ It should be noted, however, that there are examples of post-disaster windows of opportunity leading to minimal, if any, policy changes in affected areas (Manyena, 2013; Mockrin et al., 2016; Passerini, 2000)

Early work about post-disaster political change discussed “policy windows” (Solecki & Michaels, 1994) where disaster events act as “focusing events” (Birkland & Young, 2012; Kingdon & Stano, 1984) for increased concern directed toward the communities’ vulnerability to hazards. This literature underlies much of the scholarly work (and politics) that are focused on resilience or “building back better”, in terms of both physical infrastructure as well as psycho-social health (Clinton, 2006; Dube et al., 2021; WHO, 2013). In response to this literature, there was a growing desire to account for and properly theorize the post-disaster opportunism and action by a broader group of social actors. One of the key papers which aimed to broaden the scope of research exploring post-disaster opportunity was written by Birkmann, Buckle, Jaeger, Pelling, Setiadi, Garschagen, Fernando, and Kropp (2010), which explicitly outlines a framework for the numerous “windows of opportunity” which emerge following disaster. This paper makes two helpful contributions relevant to this thesis. The first contribution is the (imperfect) delineation between “formal” and “informal” actors in processes of post-disaster change which I critiqued and further delineated in Chapter 1. Second, the authors distinguished between the role of *reflective* (conscious, planned, and measured) and *reflexive* (unconscious, spontaneous, unintentional) behaviours by these actors (Birkmann et al., 2010). While not necessarily contributing to empirical literature about the role of emotions and affect in post-disaster change, the inclusion of so-called reflexive actions into post-disaster frameworks was an important theoretical recognition from authors whose work was largely focused on more representational processes. While not all papers discussing post-disaster change and opportunism explicitly discuss “windows of opportunity”, the concept produces a helpful framing in which to address forward-thinking literature about disaster events as distinct from disaster studies more broadly.

2.5.2. Resiliency Framing

Much of the literature which discusses windows of opportunity describes resiliency concepts, including infrastructural, psycho-social or community resilience. While the analytical chapters of this thesis speak only briefly to resilience literature and within the context of broader critiques of capitalist processes after disaster (see Chapter 5), a rich body of literature describes the post-disaster window as an opportunity to make shifts towards developments that reduces the negative impacts of disaster or adapting to climate-change related risks (Patel et al., 2017). Other resilience work involves considering communities' "shared and unique capacities to manage and adaptively respond to the extraordinary demands on resources and the losses associated with disasters" (Cox & Perry, 2011, p. 396), as well as psycho-social resilience (see Kumar, 2017), both of which I have addressed in previous work on the Horse River wildfire (Stanton, 2018).

Despite the generative contributions of resilience studies, resiliency framing has been critiqued for the ease of which it can be transformed into neoliberal or individualized agendas (Bonilla, 2020; MacKinnon & Derickson, 2013; Rhiney, 2020). Further, while exceptions exist (see Grove, 2014), much work in resiliency framing is primarily interested in formal processes of policy, infrastructure, and service delivery, instead of the informal, emotional, and affective processes which are the focus of this thesis. As such, I primarily consider resilience literature which focuses on small-scale processes within alternative post-disaster pathways and narratives that are more explicitly anti-capitalist and decolonial in orientation (see Cretney, 2014).

2.5.3 Political Ecologies of Disaster Capitalism and Disaster Colonialism

One of the most dominant narratives to emerge in critical disaster theory in recent years is “disaster capitalism”, which was introduced by journalist Naomi Klein in her book, *The Shock Doctrine* (2008). In this work, Klein argues that the disruption to everyday lives and institutions in times of disaster provides opportunity for large-scale capital accumulation and corporations to apply pressure in order to shift governance and policy toward neoliberal orientations and private distribution of resources. Disasters provide such significant “shocks” to economic and infrastructural systems, she argues, that private re-construction programs and a shift to private provision of services is more easily accepted by the public. Together, Klein and subsequent authors naming disaster capitalism tell a story of investors creating profit out of the destruction of physical capital and social disruption within a larger system of growth-based capitalism, along with the shifts in service provision from public to private entities. Together, these authors produce forward-thinking disaster literature which is closely aligned with the “social phenomena” period of disaster studies, along with early Marxist political ecology.

Since Klein’s writing, scholars from across disciplines have utilized the concept of disaster capitalism to describe the ways in which the rupture of daily life, economic systems, and infrastructure during disasters leads to profit-making and a shift in governance towards market-oriented approaches. For example, Adams, Van Hattum, and English (2009) use a case study of post-Katrina New Orleans to describe how disaster capitalism became part of a long-term political and social change of ongoing crisis they call “chronic disaster syndrome”. Relatedly, Perez and Canella (2011) discuss the shift to neoliberal governance following Katrina in the operation of public schools, and Sandoval, Gonzalez-Muzzio,

Villalobos, Sarmiento, and Hoberman (2020) discuss the tendency for (further) neoliberal reforms in Chile following earthquake and volcanic disasters. In these works, rupture is viewed in an opportunistic fashion by for-profit businesses who apply pressure to local, regional, and national governments in order to create a more business-friendly environment. Further, D.C. Harvey (2017) “extends” disaster capitalism to refer to the ways in which not only does economic and service provision shift with disaster capitalism, but also social policy. Through this analysis, Harvey also makes clear that disaster capitalism includes “secondary violences” (p. 336) and erasures which are an extension of racial neoliberalism (Goldberg, 2009). Pyles, Svistova, and Ahn (2017) also make the connection between neoliberalism, disaster capitalism and racist erasure through an examination of the effects of Katrina in the United States and Haiti. Together, these authors demonstrate how disaster capitalism not only encourages novel cases of privatization and shifts in governance, but also functions to entrench already-existing neoliberal and racist structures following disasters.

Drawing from discussions of the relationship between disaster capitalism and race, recent work has critiqued literature discussing disaster capitalism as erasing the coloniality of this post-disaster process. For example, Jordan Camp and Laura Pulido (2017) summarize Clyde Wood’s argument that the disaster capitalism concept lacks historicity:

Another reason Woods felt compelled to write this book was because he wanted to offer a longer historical analysis than the concept of “disaster capitalism” allowed. In the wake of Katrina, the concept, deployed by Naomi Klein, became a popular tool to describe the exploitation of crises or “disasters” in order to gut social programs and implement neoliberal agendas. While sympathetic to the radical politics of such a position, Woods felt that as a theory it was limited by a neglect of the history of plantation capitalism. He observed, “Activists in New Orleans were very insistent that there was not just a disaster and people were taking advantage of it, there was a disaster before Katrina.” (pp. xxiii-xxiv)

In other words, while disaster capitalism provides insight regarding the immediate political effects of disasters, it does not account for the longer histories of dispossession which produces those disasters and infiltrates nearly all their impacts. In response to these concerns, Yarimar Bonilla (2020) explicitly calls for disaster capitalism to be considered within the context of the “colonial encounter”:

[T]he accelerated forms of extraction and dispossession evident in the wake of modern disasters are conditioned by the subjectivities and technologies of the colonial encounter. For this reason, I argue that disaster capitalism needs to be understood as foundationally a form of racio-colonial capitalism, that emerges directly out of the capitalist incubator of plantation slavery. (p. 2)

In (settler)colonial contexts, disaster capitalism, where disaster events are used to accelerate processes of extraction, development, and accumulation, cannot be disentangled with processes of dispossession. As Villanueva & Cobián (2019) argue, the very means to accelerate these forms of accumulation following disasters results from the colonial histories and structures which underpin capitalist-colonial economies. Considering disasters as a culmination of (settler) colonial encounters is particularly relevant in the context of Western Canada, where settler colonialism and extractive capitalism are entwined in histories of ongoing ecological crises and disasters.

As outlined above, much literature evoking disaster capitalism focuses primarily on more “formal” (Birkmann et al., 2010) processes after disasters, such as infrastructure, government service delivery, and the workings of large-scale corporate actors. This primary focus on large-scale, corporate actors and industries has been critiqued as insufficient to fully understand the more complex processes at play before, during, and after disasters. Ben Wisner (2009), for example, in a book review which discussed post-disaster profiteering, summarized this critique:

By focusing narrowly on the seemingly opportunistic, almost casual profiteering by large firms during periods of recovery from disaster, the editors and most of the case studies lead the reader's gaze away from the much larger, systematic relationship between neoliberalism and disaster. (p. 106)

Examining how neoliberalism, capitalism, and disaster are entwined “all the way down”, including among informal actors, can begin to re-direct our “gaze” towards the pervasiveness of these relationships. Early work which begins to address the absence of small-scale actors in disaster capitalist narratives includes A.J. Faas’ (2018) work on “petit” disaster capitalism, which discusses how even well-intentioned and small-scale, entrepreneurial attempts to recover following disasters contribute to neoliberalization and the entrenchment of dominant interests. In Chapter 6, I discuss petit disaster capitalisms as entangled with commercial settler harvesters’ claims and justifications for extracting mushrooms on unceded Indigenous Territories.

Some of the most incisive critiques of the disaster capitalism concept contend that it is too geographically broad and all-encompassing to fully capture the place-specific nature of post-disaster social and economic change (Schuller & Maldonado, 2016). While the growing body of literature involving site-specific case studies of disaster capitalism helps to address this critique, it may be better to determine how disaster capitalism operates in place by exploring grassroots *opposition* to capitalism and neoliberalism following disasters.

2.5.4 Opportunities for Reworking and Resistance: Alternative Approaches to Post-Disaster Opportunity

While disaster capitalism and disaster colonialism are pervasive, opportunity for alternative processes of change emerges concurrently and in contradiction to disaster capitalism. These narratives give agential voice to those who have experienced disaster, in

contrast to many regarding disaster capitalism which imply that those who have experienced disaster are too overcome with the rupture of institutions and infrastructure to resist socio-economic change pushed by outside actors.

Understanding the distinctions between resilience and resistance is difficult, partly because of the broad definition of the former concept (Cretney, 2014). As Cindi Katz (2004) describes, however, resilience merely enables survival and allows people to “sustain” themselves in difficult consequences, without changing underlying systems. Bonilla (2020) further emphasizes the limitation of some forms of resilience thinking in terms of its ability to address ongoing colonial and capitalist oppression:

However, we must ask: which communities have historically been required to demonstrate resilience and incessantly forced to endure both the shocks of neoliberalism and the slow traumatic violence of colonial extraction? And is it possible that the push towards resilience has actually made them disproportionately vulnerable to the current challenges of climate change? (p. 2)

In a useful distinction for understanding post-disaster contexts, Katz (2004) distinguishes resilience from *reworking*, where social problems and inequalities are recognized and addressed, but along the same “scale and plane” that problems are experienced, often merely redistributing resources, and without addressing deeper hegemonic balances of power. *Resistance*, on the other hand, Katz (2004) describes as involving “conscious-building” and being “explicitly oppositional [in] character” (p. 251). Acknowledging that reworking and resistance are often blurred in practice and geographically, this section will outline alternative pathways of opportunism and change following disaster that are place-based and in opposition to capitalist and colonial encroachment. Authors outlining reworking and resistance describe this alternative pathway to disaster capitalism as “grassroots”, highlighting the ways in which they are viewed as

oppositional to processes like disaster capitalism. Here, Cretney and Bond (2014) represent this narrative within the disaster literature aptly, by describing disaster: “... as a time of crisis [which makes it] a time for such [anti-capitalist, activist] groups to take control during a momentary lapse in dominant capitalist life” (p. 29).

Many case studies present grassroots approaches as viable alternative processes to disaster capitalism within disaster-affected communities. Because of disaster capitalism literature’s early focus on infrastructure, much of the scholarship discussing resistance to this process involves community-based reconstruction to resist capitalist development. For example, Fois and Forino (2014) used a case study of Pescomaggiore, a small community affected by an earthquake, where local peoples refused government-mandated housing rebuilding processes, and instead adopted grassroots, self-built housing design following the disaster. The authors argue that grassroots resistance to formal and neoliberal rebuilding led to long-term change in governance (Fois & Forino, 2014). Cretney and Bond (2014) draw a connection between the development of post-disaster resilience and anti-capitalist/neoliberal activism with respect to infrastructure following the Christchurch earthquake in New Zealand, where communities cleaned debris without consulting local power authorities and held local governments accountable for restoration activities.

As suggested earlier, a unique contribution of literature highlighting alternatives to disaster capitalism is their focus on locally-scaled actions in contrast to states and international corporations. Rebecca Solnit (2010), for example, writes about grassroots and collective responses to disaster in *A Paradise Built in Hell* as “disaster communities” (p. 18), where mutual aid and acts of reciprocal sociality emerge “with joy” (p. 64), but in the context of a state which views these communities as a threat to order. Following this work, some

authors have considered grassroots mutual aid and care as having the potential to become explicitly communist practices (OOTW, 2018), thus encouraging a shift from the “reworking” and temporary nature of “disaster community”-forms of mutual aid, and towards a clearer form of resistance which undermines ongoing capitalist hegemony.

Finally, because of the tight relationship between disaster capitalism and disaster colonialism, opportunity for reworking and resistance following disasters can also take the form of decolonial action, resurgence, and assertions of sovereignty. For example, Faria, Katushabe, Kyotowadde, and Whitesell (2021) describe how colonial development, neoliberalism, and gender inequality coalesced in economic dispossession for low-income women following the Park Yard Market Fire in Kampala, Uganda. In outlining these women’s responses and strategies to make and defend economic claims to the “new city” following the disaster, the authors demonstrate the complexities of grassroots decolonial action. Further, Bonilla (2020)’s case study of disaster recovery in Puerto Rico following Hurricane Maria highlights how grassroots mutual aid transformed—albeit unevenly—into work that was explicitly aimed at asserting and fighting for sovereignty for Puerto Ricans. In a context closer to the case studies in this work, Zoltán Grossman (2021b) discusses Indigenous leadership and resilience in the wake of disaster events using case examples from the Pacific Northwest and Aotearoa New Zealand, Grossman (2021b) highlights the possibilities of disasters to be catalysts for Indigenous-settler alliances which recognize and adhere to Indigenous laws, sovereignty, and practices. While Grossman discusses Indigenous *resilience* here, Nick Estes (2019)’s work historicizing the ongoing crisis of Standing Rock and Anna Willow (2016)’s work in Northern Canada demonstrate Indigenous responses to settler colonial and ecological disasters often exist with “oppositional consciousness” (Katz,

2004). As such, for my purposes, the resilience Grossman (2021b) describes in this context may be lie closer to reworking or resistance by Cindi Katz's definitions than resilience as understood in neoliberal terms. Despite that the participants in these small-scale activities may not have an explicit leftist articulation of their work, their activities together form an implicit collective resistance which aligns with going decolonial and anti-capitalist struggles. Villanueva & Cobián (2019) make a similar distinction between grassroots resilience and resistance when discussing Klein (2018)'s characterization of mutual aid in Puerto Rico following hurricanes Irma and Maria:

These movements are portrayed as being fundamentally about creating resiliency from below through communal mutual aid. While this is certainly true, it misses the broader point... [these movements are] fundamentally contesting the anchor of colonial capitalism, namely colonial mercantilism, manifest in the Island's virtual dependence on food and energy imports from the U.S... The struggle is an historical one, for the Island to be freed from the accumulation strategies of the Criollo bloc and plantation capitalism. (para. 10)

Drawing upon these works, I elaborate on disasters as opportunity for Indigenous assertions of sovereignty over their lands and resources in Chapter 7, where First Nations utilize the flush of morel mushrooms and accompanying settler harvesters as an opportunity to manage non-timber forest products on their Territories.

Literature discussing post-disaster processes of change—whether explicitly discussing windows of opportunity or not—considers how the disruption of disasters can provide various forms of opportunity. The opportunity following disasters is manifold and can include profiteering and further dispossession, *but also* resilience, reworking, or anti-capitalist and decolonial resistance. As I will outline in subsequent chapters, each of the key narratives I outlined above are represented within the post-wildfire landscape in Western Canada, between different groups of harvesters as well as within individuals. These pathways

are conflicting *but also overlapping*: no form of opportunism, or process of change, exists in isolation following disaster. In this way, the political ecological approach of this research allows me to consider multiple pathways concurrently. However, as I outline below, the nature of fungi is *particularly* facilitatory for understanding the non-linear, concurrent, “mycorrhizal” nature of post-disaster opportunity.

2.6. Fungi and “Mycorrhizal” Opportunity

This chapter has argued that a decolonial political ecology framework, alongside conceptual lenses adopted from human geography’s and disaster studies’ “turns” and “pendulum swings” can help understand the post-disaster context following wildfires in Western Canada. I have also demonstrated the manifold forms of opportunity and change which occur after disasters, including disaster capitalism, disaster colonialism, along with anti-capitalist and decolonial reworking and resistance. This section briefly addresses a final conceptual question underpinning this thesis, namely: why fungi?

As outlined above, recent literature from more-than-human geographers and political ecologists have demonstrated the critical roles of non-human agents in human politics, histories, and governance (see Lorimer, 2010; Robbins, 2003; Todd, 2014). Despite these important contributions, plants and fungi often remain overlooked within much of the more-than-human literature, with scholars focusing most of their efforts on animals (as critiqued by Atchison & Head, 2013; Fleming, 2017). This research aims not only to help reduce this other-than-animal disparity within the literature, but also to demonstrate how studying fungi (and morel mushrooms specifically) can offer useful means in which to understand settler-colonial histories, disaster, and the non-linear, rhizomatic (Deleuze & Guattari, 1988) processes of post-disaster change and opportunity.

Of course, one cannot mention a study about mushroom harvesting without the work of Anna Tsing. Indeed, Tsing (2015)'s work on matsutake harvesting, along with other social scientists exploring fungal phenomena (Barron, 2015, 2018; Fine, 2009), are featured throughout this thesis. However, a key lesson from more-than-human study is how the agency of *specific* actors or species reveal different relations and stories. While previous studies of mushrooms allow us to understand questions of freedom and "salvage accumulation" (Tsing, 2015), nature-work (Fine, 2009), or more-than-economic values (Barron, 2015), morels allow us to learn about the relationships between land, disaster, and manifold opportunity. As I described at the beginning of this chapter, settler colonialism is a distinct process and structure from colonialism (Veracini, 2011). While Tsing's (2012) early work on fungi outlines how fungi related to colonial processes and histories, morel mushrooms offer a way to understand the ongoing relationships between settler states and peoples, disaster, and fungi. Fire morels also facilitate a very close reading of the specific conditions of settler colonialism in Western Canada, as these mushrooms do not flourish other than in the burnt northwestern forests of North America. In this way, the specific ecologies and histories of morel mushrooms allow us to center settler-colonial histories within discussions of disaster and informal opportunity, an analytic which is underrepresented in both disaster literature *and* earlier scholarship on mushroom economies (Tsing, 2015).

Adopting a fungal approach to post-disaster change also allows me to address a lingering question in disaster studies: how informal assemblages can produce non-linear and patchy change following disasters. Many key authors working on post-disaster opportunity explain that post-disaster recovery and socio-political change is decidedly non-linear (Tierney & Oliver-Smith, 2012; Birkmann et al., 2010; Mochizuki & Chang, 2017). These

authors also point out that the mechanisms and effects of this non-linearity remain understudied within disaster studies literature, as is research which attends to small-scale actors and processes. Because of their complex and often mysterious, confounding ecologies, this thesis makes the case that fungi offer a helpful lens and metaphor in which to study the informal, non-linear nature of post-disaster opportunity and change.

Fungi are rhizomatic in the Deleuzean sense, in that not only do they exist in large, non-hierarchical networks which connect and expand across wide forest surfaces (see Chapter 4), they also facilitate inquiry into disasters where multiple histories, temporalities, peoples, and bodies are enmeshed and interconnected to produce multiple and non-deterministic futures. While Colombat (1991) cautions against taking the rhizome metaphor too literally, considering how rhizomes relate to fungal ecology can help parse how morels are uniquely helpful in working with non-linear change in a settler-colonial context.

Of course, fungi are not actually rhizomatic. Many fungi, including morels, are mycorrhizal, with vast and non-deterministic networks which connect various species beneath the soil's surface. Botanically speaking, rhizomes can be easy to remove from the soil, transport, and sprout in the absence of land. Growing ginger plants from rhizomes in water was a popular quarantine activity, for example, and hydroponic systems growing strawberry plants are increasingly commonplace. Mycorrhizal fungi, on the other hand, require connections with land, trees, and other ecologies in order to fruit and thrive. As I outline in Chapter 4, cultivating morels in labs without these forest relations has been a decades-long mycological struggle. Thus, a mycorrhizal approach to post-disaster opportunity combines the non-linear, non-deterministic potential of the rhizome with the grounded and relational approach to study so critical to understanding the settler-colonial

context (see Chapter 3, *Methodology*). This approach allows us to address limitations of both disaster research in its under-examination of diffuse agency and non-linearity, as well as previous work on mushroom harvesting (Tsing, 2015) in its oversight of the specific settler-colonial condition (see Chapter 4).

Because of their “mycorrhizal” nature, thinking about post-disaster landscapes through the context of the morel harvest ensures that considerations of agency and assemblages remain diffuse, ever-changing *and* grounded. As I will outline in the forthcoming chapters, the success of the people involved in the morel harvest is dependent upon not only other harvesters’ actions and governing bodies, but also mushroom and forest ecologies, weather, and a good amount of blind luck. As I discuss in Chapter 4, morel mushrooms can be understood as uncooperative labourers, with complex and often unpredictable reproductive cycles which confound harvesters’ and lab scientists’ aims to tame and subsume them. The morel harvest is bathed in uncertainty and plural potential. It is in this way that post-wildfire mushroom picking also emphasizes a key issue in writing on post-disaster change, particularly those which focus on neoliberal and capitalist processes after disasters: neither disaster capitalism, disaster colonialism, nor resistance are inevitable, and all exist simultaneously. Thus, a rhizomatic approach to post-disaster opportunity support what Cretney (2017) and Phelps, Bunnell, and Miller (2011) argue in relation to disaster capitalism: while some processes may be more apparent than others following disaster, there are many processes of change occurring simultaneously within windows of opportunity. A mycorrhizal approach goes further, by ensuring that these non-linear processes are always understood in relation to the land and the ecologies which surround

them. As I will demonstrate throughout this work, fungi make excellent companions for a political ecology framework of disaster opportunity.

2.7. Conclusion

This chapter outlined the conceptual framework utilized in this thesis to understand post-disaster opportunism and processes of change within settler-colonial contexts. I have argued that a decolonial political ecological approach is best suited to understand the shifting and informal networks and ecologies of mushroom harvesters following wildfires. My research draws broadly from across disciplines, including feminist, emotional, and decolonial political ecology; human geography; Indigenous scholarship; and disaster studies. Together, these literatures have allowed me to address lingering questions and limitations within disaster studies and political ecology more broadly, all while highlighting the overlapping and concurrent forms of opportunism that emerge after disasters.

By identifying the overlaps between disaster studies approaches and early political ecology, I have re-iterated the significance of capitalism and neoliberalism in the production of disasters *and* post-disaster opportunity. These literatures are most frequently represented through Klein (2008)'s work on disaster capitalism (see also Schuller & Maldonado, 2016). I have also, however, drawn upon work which considers grassroots experiences and responses to disaster (Cretney & Bond, 2014; Solnit, 2010) alongside critiques of disaster capitalism which argue that focusing on large corporations distracts us from the pervasive relationship between neoliberalism and disaster (Wisner, 2009). These contributions and critiques together suggest that there is space within disaster studies and political ecology to explore how small-scale actors are involved in *both* capitalist and anti-capitalist post-disaster actions. Exploring the multiple claims to opportunity amongst post-wildfire morel mushroom

harvesters, and how these competing claims relate to wider political processes, helps to address these questions. By drawing on more-than-human geographies and considering fungi, forests, and land as agents in the post-wildfire landscape, I address another under-developed area in disaster studies: the role of more-than-human assemblages in the production of post-disaster opportunity.

Second, through a reading of feminist and emotional political ecology alongside affective geographies, I have identified a pathway to shift from the psycho-social and positivist focus dominant within early disaster studies literature towards an approach which accounts for the political potential of embodied emotional experiences and collective affects. Not only does this focus help to bring the experiences of non-state actors into focus, but also considers how affective life both entrenches *and* resist the processes of capitalism and colonialism which underpin disaster events.

Finally, and most significantly, I have addressed an ongoing limitation in a large portion of disaster studies *and* political ecological literature by maintaining an attunement to the specific conditions of settler colonialism as they relate to disasters and incorporating what Sultana (2021) refers to as marginalized epistemologies throughout this work. As such, I provide a detailed understanding of the entangled ecologies of capitalism, colonialism, and disaster across several temporal “stages” of the disaster. In this way, this research aims to connect disaster studies with broader aims of Indigenous sovereignty by adopting a forward-thinking approach to disaster recovery and opportunity which simultaneously recognizes settler-colonialism’s histories and ongoing conditions of dispossession and resurgence. Through an in-depth and grounded approach to place-specific post-wildfire context of Alberta and British Columbia, this work can trace affective and grassroots change that have

gone under-examined in disaster literatures, while also remaining centered on a political project of “Land Back” (Pasternak et al., 2019) decolonization and centering Indigenous scholarship. This approach makes important connections between the structural conditions of disaster, the affective and embodied processes within post-disaster landscapes, and larger political projects of Indigenous self-determination and sovereignty.

While this chapter has provided an overview to understanding disasters and post-disaster opportunity in a broad sense, each of the forthcoming analytical chapters offers a unique lens in which to understand the post-wildfire opportunity of morel mushrooms. These chapters are presented roughly chronologically, from the pre-disaster more than human production of wildfires, to the emergence and challenges of the harvesting event, and finally to attempts to govern the industry. However, beyond a chronological account of morel opportunism, each chapter provides a unique lens in approach to disaster opportunity by adopting different and layered conceptual lenses (Figure 2).

	Settler Colonialism	More-than-Human	Emotions and Affect	Structural Critique of Capitalism	Indigenous Authority
Chapter 4 ¹⁰ <i>Producing Opportunity</i>					
Chapter 5 <i>Capturing Opportunity</i>					
Chapter 6 <i>Maintaining Opportunity</i>					

¹⁰ It is important to note that Chapter 4, *Producing Opportunity*, can be seen as a hybrid between a contextual and empirical chapter. The chapter provides a deeper ecological and historical context for the morel mushroom harvest and emphasizes how settler-colonial histories are ongoing in the more-than-human fire ecologies of boreal and sub-boreal forests.

Chapter 7 <i>Governing Opportunity</i>					
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Figure 2: Overview of analytical chapters and key conceptual lenses.

Before we return to the burnt forests of Alberta and British Columbia, however, I use the following chapter, *Methodology*, to further explain how a decolonial political ecological approach to disaster influenced my epistemological and methodological choices throughout my research process.

3. Methodology

3.1. Introduction

This chapter describes the multi-phased and iterative process I adopted while researching morel mushroom harvesting across wildfire-affected forests and communities in Western Canada. My specific research questions have evolved throughout this project. Nonetheless, I have remained interested in understanding how different groups—local people affected by wildfire, commercial mushroom pickers, Indigenous Nations and communities—experience and engage with post-disaster opportunism. In other words, while my project has evolved and I have developed more specific and theoretically-informed research questions, my methodological approach has always aimed to understand what morel mushrooms do—and what they allow different groups of people do—to in the post-wildfire context. Through an overview of the two case studies used in this thesis, I will outline how the methodological and epistemological approaches have evolved through the iterative process of multiple rounds of fieldwork, analysis, and writing. Further, this chapter aims to discuss how research which primarily involves white settler groups, such as morel mushroom harvesters, can apply lessons from Indigenous methodologies and respect Indigenous data sovereignty on their Territories.

All the data I have collected through fieldwork in both Fort McMurray and NSN Whut'en Territories address my overarching research questions about multiple forms and claims to post-disaster opportunity. However, my methodological approach and orientations evolved between the first phase of my project in 2017-18 in Fort McMurray, and the second phase in 2019 on Nadleh Whut'en, Stellat'en, and Nak'azdli Whut'en (NSN Whut'en) Territories.

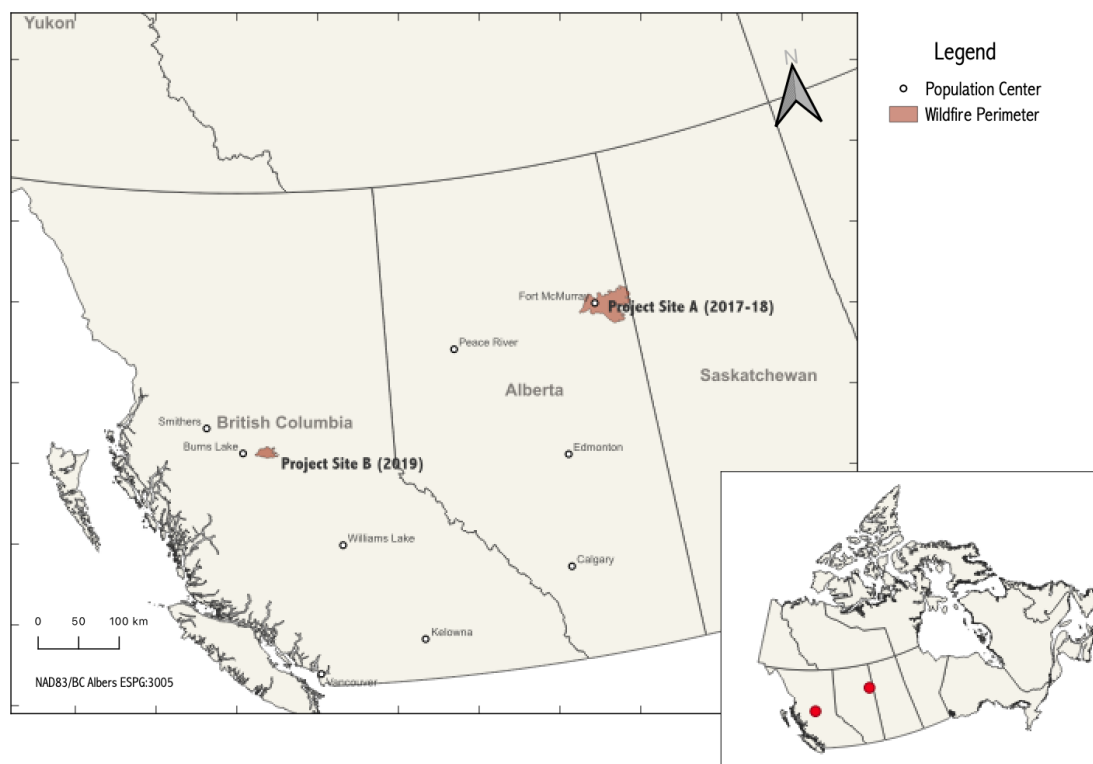


Figure 3: Map of Project Sites: Site A following the 2016 Horse River Wildfire and Site B following the 2018 Shovel Lake Wildfire (Sources: B.C. Data Catalogue, 2021; Government of Alberta, 2021; Government of Canada, 2021).

I begin this chapter by outlining the epistemological positions I have adopted, paying particular attention to the balance of increasingly working with Indigenous knowledges, epistemologies, and ontologies in my position as a settler researcher studying (mostly) settler

mushroom pickers. Next, I outline both case studies, or phases, involved in my project: first, in Fort McMurray, Alberta, following the 2016 Horse River wildfire, and then in Nadleh Whut'en, Stelat'en and Nak'azdli Whut'en Territories in north-central British Columbia following the 2018 Shovel Lake wildfire (Figure 3). In the next section, I describe how the transformations in the questions I asked and data I collected throughout the project influenced how I analyzed this data for the thesis. Finally, I describe my positionality as a researcher, focusing primarily on how my approach to fieldwork and research has changed as I have navigated the ethics and accountability of working on Treaty lands and unceded Indigenous Territories.

3.2. Epistemological Orientations

As outlined in the previous chapter, this thesis aims to understand post-wildfire morel mushroom harvesting in grounded, affective, and more-than-human terms to highlight the manifold and contingent nature of post-disaster opportunity. As such, a qualitative methodology is well-suited to address my research questions, as qualitative approaches allow for in-depth understandings of phenomena as well as rich empirical accounts. Broadly speaking, I adopted a constructivist grounded theory approach as outlined by Kathy Charmaz (2006) throughout my fieldwork and analysis. As a result, I understood the post-disaster opportunity as the result of participants' multiple perspectives, affects, and actions, and adopted a relational epistemology that recognizes my own role and stake in post-wildfire opportunity in the production of knowledge about these spaces.

Importantly, I am not interested in the agency of humans alone in the production and capture of post-disaster opportunity. I understand wildfire, forest ecologies, morel mushrooms, harvesters, and Indigenous Nations to be assemblages (Deleuze & Guattari,

1988) with distributed agency and which form and dissolve within and between disasters and harvesting seasons. Thus, in order to be attuned (Trivelli, 2015) and articulated (Latour, 2004, as cited in Peltola & Tuomisaari, 2015) to the role of embodied experiences and the more-than-human in the production of post-disaster opportunity. To “attune” myself to these experiences, I draw from work on vital or lively materialities (Bennett, 2010) and fungal assemblages (Tsing, 2012) in order to expand the social realm to include forest ecologies and agency, including that of boreal trees, fire and fungi. At the same time, I do not assume universal embodied experiences between groups. Instead, human and more-than-human bodies are differentiated in their capacities to be affected within the post-disaster assemblage based on their situated historical and political realities (Tuck & McKenzie, 2015). This implies that my embodied experience of being “articulated” to finding morel mushrooms (Peltola & Tuomisaari, 2015) or of being within the affective atmospheres in mushroom camps may not be universally held by my human and non-human collaborators. I also recognize that understandings of the more-than-human nature of post-disaster opportunity are often different between me and my participants, as well.

As Zoe Todd (2016) describes, particularly with respect to Western work regarding the “more-than-human turn”, it is of primary importance to acknowledge and center Indigenous knowledge, laws, practices and scholarship which have described the more-than-human world hundreds of years before this “lively turn”. However, at the same time, Todd (2021) also describes how settler researchers must resist the flattening of place and Nation-specific cosmologies, laws, practices, and histories into non-specific Indigenous knowledge, with aims of “braiding” Indigenous and non-Indigenous knowledge. As such, I remained aware of the need to not “simply incorporate[e] Indigenous work as is often done in liberal

multicultural discourse” as I approached understanding the role of non-humans throughout this work, but rather “engage Indigenous work on its own terms” (Tuck & McKenzie, 2014, p. 20). This project presents a unique challenge here, as while I studied processes occurring on Indigenous Territories, most of my research population were settlers. To produce grounded understandings of the post-disaster opportunity presented by morel mushrooms, I necessarily worked with my participants’ ontological perspectives. I could not merely apply lenses proposed by Indigenous scholars to my analysis of settler experiences of the land and mushroom hunt, as I understood these harvesters to have a distinct ontological understanding of morel mushrooms, land, and opportunity than those within the Indigenous Nations on whose lands they harvested.

While there is a significant body of work which describes the importance of adopting Indigenous ontologies, epistemologies and methodologies while studying Indigenous communities (see Smith, 1999), mapping how Indigenous ontological and epistemological perspectives can be used within settler communities is less explored within geography (Carlson, 2017; Yates et al., 2017). Indigenous methodologies are certainly relevant to settler populations and larger projects of decolonization and the return of land and authority to Indigenous peoples. As Scott Lauria Morgensen (2012) describes,

Indigenous methodologies arise within the larger pursuit of Indigenous decolonization, as project that Indigenous critics theorize variously as ontological, psychic, governmental and relational. Indigenous methodologies...endeavo[r] ‘to denaturalize and ultimately dismantle the conditions in which these systems of massive violence are reproduced’ (Rodriguez, 2012). Such theories seek to fundamentally transform the institutional and epistemic conditions of life and thought for Indigenous and non-Indigenous people on lands where all live relationally, in ways that settler societies and their governance cannot contain. (p. 805)

Thus, it is important to note how I navigate between distinct ontological perspectives on land, disaster and opportunity between the settler harvester participants and the Indigenous Nations on whose territories they pick mushrooms.

To imperfectly bridge these ontological gaps, my approach was centered on the question of the land and the “rootedness of place¹¹”, as articulated by Tuck and McKenzie (2014, p. 21), or “grounded normativity”, as described by Glen Coulthard and Leanne Betasamosake Simpson (2016). Just as feminist geographers may use gender as a “problematic” which “see[s] gender as the central hinge of the research on which everything else pivots” (Cope, 2002, p.51), I understood settler-colonial land histories to be the central “problematic” throughout my analysis. Practically speaking, this meant that alongside centering relevant Indigenous work on the agency of more-than-humans in my thinking about post-disaster processes, I also ensured that my understanding of the political context of the morel harvested was interpreted through the historical and present-day struggle for land between Indigenous peoples and settler society. In this way, I engaged with Indigenous governance practices and land claims “on their own terms” (Tuck & McKenzie, 2014) which do not require my or the settler state’s “recognition” (Coulthard, 2014), and centered Indigenous local histories, ontologies, and acts of resurgence (Simpson, 2016; Alfred & Corntassel, 2005). This ensured that, while I thought with Western thinkers on assemblage, affect, and the more-than-human in the field and in my interactions with settler participants, I remained “rooted” within the settler-colonial history of the land in which I worked, and

¹¹ Tuck and McKenzie (2015) refer to “rootedness of place” as a methodology which takes place and land as central to analysis. In this context, the term “rootedness” does not imply that Indigenous peoples and Nations are static spatially, culturally and politically, and recognizes the complexities of Indigenous movement and diasporas (see Clifford, 2006).

within the larger project of decolonization which informs Indigenous epistemologies and methodologies. This rootedness recognizes the ontological differences between Indigenous and Western understandings of land (see Yates et al., 2017, Wilson & Inkster, 2018). Rootedness also recognizes the political realities of land tenure and struggle which continue today (Estes, 2019), which in turn influence Indigenous Nations' governance of their Territories. Thus, by engaging with Indigenous law and governance on their own terms and understanding how settlers were *affected by* these practices, I maintain my focus on centering settler-colonial histories and Indigenous power while avoiding “romanticizing” (Goeman, 2013) the Indigenous communities' relationships with land or making claims which are not grounded in my ethnographic data.

3.3. Case Study Overview

This thesis has a multi-phase, qualitative case study methodology. The data collection for this project took place across three morel harvesting seasons and two field sites from May 2017 to June 2019. As I outline below, the project proceeded across two broad phases. Data was collected as part of my MPhil.¹² research project in Fort McMurray in the spring seasons of 2017 and 2018, and on NSN Whut'en Territories in British Columbia in spring 2019. Data from fieldwork on NSN Whut'en Territories informs most of the analysis in this thesis. These case studies were chosen to theoretically sample (Strauss & Corbin, 1998) the morel harvester population in order to gain representation in my sample along three primary

¹² The School of Geography offers an MPhil. (Master of Philosophy) to DPhil. route for those who would like to continue at the School for their doctoral research. This route allows students to conduct research in the same “broad field” as their MPhil. projects, while producing a distinct piece of work which includes additional data, theoretical lenses, and contributions.

dimensions: the nature of the wildfire disaster, the nature of the morel flush, and the harvester demographics the following spring (Table 1). While the groups represented in Table 1 are not to be interpreted as essentialized identities (see Chapter 5), there are several overlapping and conflicting layers of “insider” and “outsider” status between these groups. For example, in terms of local attachment to place and experience of recent wildfire disaster, local Indigenous and settler local groups experience commonality; in terms of settler-colonial understandings of “Crown land” and claims to resources (see Chapters 6 and 7), however, settler locals and transient commercial harvesters are “insiders” to each other. This thesis attends to these shifting associations and identities throughout each of the analytical chapters.

Table 1: Broad descriptions of participant category labels used throughout the thesis

Group of Harvester	Group description and characteristics
Local Indigenous	Indigenous peoples on whose Territories the morel harvest is occurring. Like settler locals, they are often first-time, casual pickers and have experienced wildfire loss and damage. However, Indigenous locals are distinct because of their relations to land, other pickers, and First Nations Territories.
Settler Locals	Settlers from the local area recently affected by wildfire. Primarily pick as a social activity or hobby, though may occasionally sell small quantities into the market.
Transient Commercial	Non-locals, who travel hundreds or thousands of kilometers in order to pick and sell morels into an international market. They are the most common type of morel harvester, and while some are Indigenous, new immigrants, or members of another racialized group, the vast majority (81% in this study) are (white) settlers.

While these disasters and harvesting seasons were discrete events located over 1000 kilometers apart, it is important to note that because of the annual nature of the morel harvest,

the boundaries between cases are blurred. For example, many participants were involved in both the Fort McMurray and NSN Whut'en harvest. As such, while the data emerge from two different field sites, this thesis is not structured as a comparative case study (see Bartlett & Vavrus, 2017), but instead draws insights from the two phases of research to represent a more holistic understanding of the recurring morel harvest than a single-sited study. I briefly summarize each case in terms of general geographic and demographic information about the area, the wildfire event which produced morel mushrooms, the types of harvesters the morel flush attracted, and how the case contributed to analysis, in Table 2 and the sections below.

Table 2: Characteristics of field sites: Fort McMurray, Alberta, and NSN Whut'en Territories (British Columbia)

Dimension	Wildfire	Morel Fruiting Event	Harvester Demographics
Fort McMurray (2017-2018)	Peri-urban, loss of 2500 structures, covered significantly by national and international media	Marginal to Moderate	Primarily hobbyist
NSN Whut'en (2019)	Rural, less economic/property damage, local media attention	Significant	Primarily commercial

3.3.1. Local Hobby Harvesting following the Horse River Wildfire

Fort McMurray is located in the Regional Municipality of Wood Buffalo on Treaty 8 Territory in what is now known as Alberta, Canada (Figure 4). The Horse River wildfire occurred in May 2016, and burned 589,552 hectares of boreal forest, leading to the evacuation of all 80,000 residents of the Regional Municipality of Wood Buffalo, and

destroying over 2500 structures and homes in the process. During the time of this disaster, I was in my hometown, Edmonton, Alberta, around 400 kilometers south of Fort McMurray. Most of the evacuees from the wildfire travelled to Edmonton, and so I witnessed first-hand the large community response distributing food parcels, accommodation, and support, alongside international news stories about the disaster.

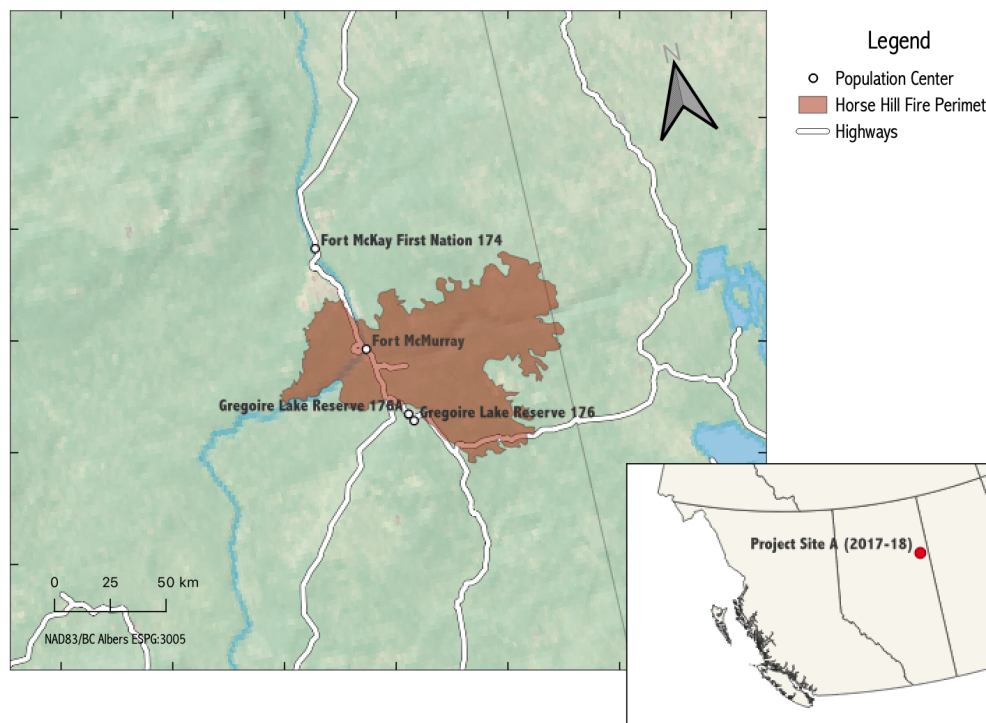


Figure 4: Detailed map of Project Site A, including the Horse Hill Fire perimeter, Fort McMurray, and populated First Nations reserves affected by the fire. (Sources: Government of Alberta, 2021; Government of Canada, 2021; Natural Earth, n.d.-a, n.d.-b).¹³

Because of the size and disruptive nature of this fire, Fort McMurray residents had high levels of post-traumatic stress and anxiety disorders following the disaster event

¹³ This figure includes populated First Nation reserves, and so do not represent Fort McKay or Fort McMurray First Nations' traditional territories. Gregoire Lake Reserve 176 and 176A belong to Fort McMurray First Nation.

(Agyapong et al., 2021). The Fort McMurray wildfire attracted few commercial morel harvesters (Stanton, 2018) due to the timing of the wildfire; the poor road access of the area; and concerns regarding the contamination of wild foods from the oil sands (see Baker, 2016; Schindler, 2014; Todd, 2017a). It was through this fieldwork that I realized that mushroom harvesters, particularly commercial ones, are “hard to reach” participants (Atkinson & Flint, 2001; Stanton, 2018). Not only are mushroom pickers notoriously secretive about their patches, but many commercial pickers purposefully live “off grid” and are difficult to contact. As such, this case study focused primarily on the experiences of local, hobbyist harvesters. I interviewed and harvested mushrooms with 22 participants, mostly settler locals to Fort McMurray who picked morels as a hobby across two harvesting seasons in mid-May to July 2017 and early May to June 2018.

3.3.2. Commercial Mushroom Harvest and Governance: Shovel Lake Wildfire

In my second phase of fieldwork, I shifted the focus of my data collection from hobby pickers to commercial harvesters to gain a more holistic perspective on the morel mushroom harvest. Following my experience in Fort McMurray studying hobby harvesters, in 2019 my intention was to study commercial pickers and to understand how the wild mushroom industry interacts with wildfire-affected landscapes and peoples. I wanted to trace how the stories of wildfire and disaster—so common among the fire-affected hobby pickers I met in Fort McMurray—were transformed through the morel commodity chain into a farmers’ market or high-end restaurant specialty across Canada and in Europe. I was also interested in understanding how the fact that British Columbia was primarily unceded Indigenous Territories without treaties affected local relationships with the industry.

Unlike in my first rounds of fieldwork where the disaster of the Fort McMurray wildfire and its impacts on the community determined my project site, in 2019 I chose my location based on my best guess at which burn across Western Canada would draw the largest number of commercial harvesters. However, as I will describe in more detail in Chapter 4, for morels to fruit at the scale necessary to attract a significant commercial harvest, there needs to be the right combination of fire size and timing in the fall, combined with the right amount of moisture, warmth, and logging road access in the spring. As such, I found it quite difficult as a researcher to pick a “good” burn that will attract commercial harvesters. Finding suitable locations is considered such a skill that there have even been companies which have begun producing—and selling for \$39 USD—fire morel maps which “curate” the best locations for commercial harvesting (Modern Forager, n.d.). Unfortunately for me, these maps are only available to purchase for fires in the United States, so as I prepared for fieldwork in the winter of 2018/19, I was left waiting for the B.C. fire service to update their 2018 fire maps and reaching out to commercial harvester contacts I had met in Fort McMurray.

I planned to begin the 2019 morel season on Nadleh Whut’en, Stellat’en, and Nak’azdli Whut’en First Nation Territories which experienced the Shovel Lake wildfire in August 2018. Nadleh Whut’en, Stellat’en, and Nak’azdli Whut’en First Nations are three Dakelh (Carrier) Indigenous Nations whose unceded Territories are located in what is now known as north-central British Columbia. Despite the very few Nation-to-Nation treaties between Indigenous Nations and the Canadian state in British Columbia and the fact that treaty processes have been largely unsuccessful (Alfred, 2001), around 95% of land in the province is deemed Crown land.

The Shovel Lake wildfire was a significantly smaller wildfire than the Fort McMurray fire, burning 92,412 hectares of sub-boreal forest (Figure 5). However, it was the largest forest fire in the province of British Columbia in the record-setting fire season of 2018 (Government of British Columbia, n.d. -a), and the largest fire on Nadleh Whut'en Territories since 1922 (Sharp & Krebs, 2019). Local residents, particularly members of NSN Whut'en First Nations, experienced disruption and loss, including evacuation and displacement, the loss or degradation of hunting and wild food and medicine gathering spots, missing the critically important salmon fishing season, a loss of firewood, and the destruction of a local Indigenous healing center (Field Notes, June 2019; Sharp & Krebs, 2019). The size and economic impact of the Shovel Creek fire was not as large as the Fort McMurray wildfire. Despite the smaller footprint and impact of the Shovel Lake wildfire, the ecological and "access" conditions following the burn attracted a much larger commercial harvest than around Fort McMurray following the Horse River fire, with hundreds of commercial pickers convening on NSN Whut'en Territories between May and June 2019.

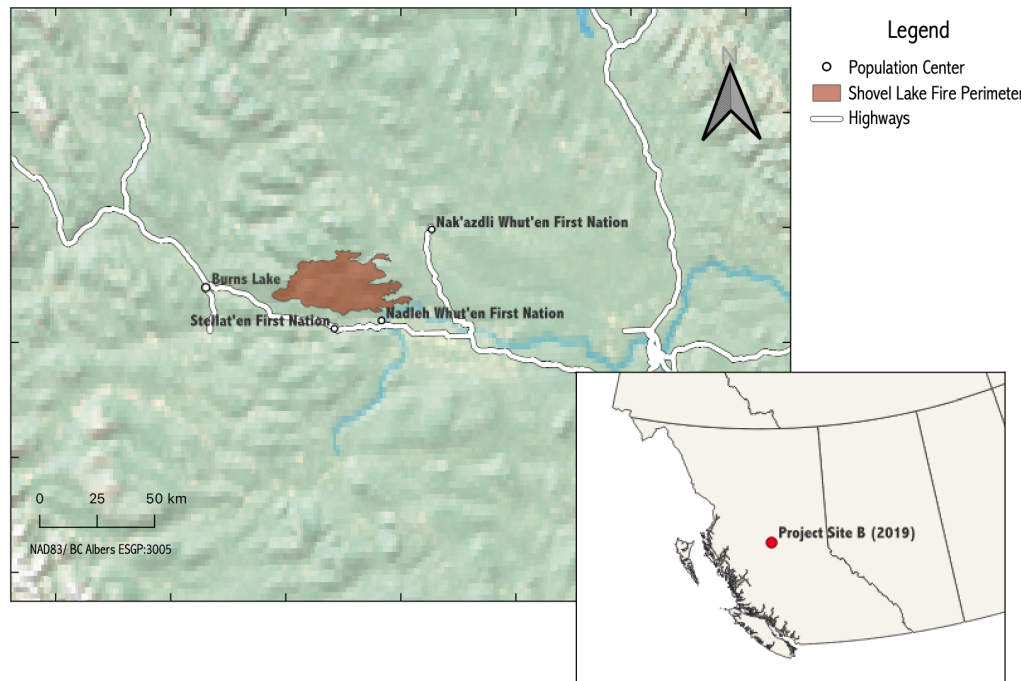


Figure 5: Detailed map of Project Site B, including the Shovel Lake Fire perimeter and the main sites of Nadlel Whut'en, Stellat'en, and Nak'azdli Whut'en First Nations (Sources: B.C. Data Catalogue, 2021; Government of Canada, 2021; Natural Earth n.d. -a, n.d. -b).

Despite that local communities also experienced wildfire damage and loss on NSN Whut'en Territories, my focus on commercial harvesters and their relations with wildfire-affected communities remained consistent throughout my fieldwork in 2019. However, my approach shifted significantly as I moved from a follow-the-thing methodology towards one which remained in place on NSN Whut'en Territories in order to respect Indigenous rights to consent to research on their Territories (Smith, 1999; Tuck & McKenzie, 2014). However, despite a change in research plans, I lived in commercial mushrooms camps, participated in the mushroom trade, and interviewed 56 participants, 47 of which were transient commercial harvesters during this fieldwork.

3.3.2.2. Working with a Field Assistant

I made a significant change to my fieldwork strategy and data collection in 2019 by hiring a field assistant. At the time of fieldwork, I had an invisible disability which meant I did not have a driver's license. While cycling and getting "rides" to morel patches worked in the 100-kilometer radius I traversed around Fort McMurray, it was not possible to complete my fieldwork in 2019 without access to private transport, particularly given the recent cuts to inter-city travel and rural transit in Western Canada ("Greyhound Canada", 2018). As such, I needed a driver to travel from burn site to burn site, and hired my field assistant, Claire, as a result (Figure 6).



Figure 6: My field assistant, Claire (right) and me on NSN Whut'en Territories in June 2019.

I was connected to Claire through a vegetable farm I was employed by prior to moving to the United Kingdom, and we met for the first time in Prince George before travelling together, every day, for the next seven weeks. Once in the field and in Claire's old

camper van, having an assistant—and Claire in particular—was transformative in terms of improving my access to burn sites, having another set of “eyes and ears” on the ground, the opportunity to think about fieldwork with another person on site. Claire also produced another rich form of data through her daily field journal. While we discussed our experiences of the mushroom harvest throughout the day and I would make notes of these conversations, Claire kept her diary private from me until after we had finished fieldwork; she felt as though her entries would be more “honest” and vulnerable if she was able to write them on her own. Once I received her field journal, I was impressed with the level detail she included in many entries about her emotional experiences of harvesting. I used this diary to reflect on our emotional experiences, represented in our private field diaries, to the collective atmospheres we produced while working together in difficult conditions.

Ironically perhaps, Claire is not a local from Northern B.C., but Welsh. She had just arrived in Canada the spring before we met on a two-year tourist visa where she hoped to “explore” Canada and get some freedom from her experiences as a stressed-out worker in London. As such, she approached many of the themes that emerged in our fieldwork, such as wildfire ecologies, morel picking, and the concepts of Crown land and Indigenous Territories, with completely “fresh” eyes, which offered some contrasting views on experiences in the field from what I recorded in my journal. Further, her appetite for adventure, friendly nature, old and converted camper van, and desire to get away from “the man”, meant that we “fit in” with the commercial mushroom pickers quite quickly when we rolled up to the first buying station set up on Nadleh Whut’en Territories.

3.4. Research Methods and Summary of Materials Collected

Because of the open-ended nature of my research questions and my interest in everyday and embodied experiences of post-disaster opportunity, I determined that an ethnographic approach to data collection was the most suitable approach to research design. Despite that my research involves interrogating how the agency of more-than-humans, including morel fungi and forest ecologies more broadly, affect post-disaster politics, I did not prioritize many of the methods developed by more-than-human geographers (for example, Lorimer, 2010) throughout my fieldwork. This was partly due to the nature of my research questions. While I was interested in how forest, fire and morel mushrooms contributed to post-disaster processes, I was not necessarily concerned about how these processes may be experienced by morels themselves. Further, my choice to prioritize human participants over fungal ones was also due to the relative lack of more-than-human research on plants and fungi when compared to animals (as critiqued by Atchison and Head, 2013; Fleming, 2017). I determined that attempting to innovate multispecies or more-than-human ethnographical methods to better understand morel mushrooms beyond their ecological and political influence was not a priority with the grounded and “rooted” approach of my project. Instead, I focused primarily on understanding harvesters’ relationships to forest and fungal ecologies, and how these ecologies influenced how post-wildfire opportunity was produced, experienced, and captured in Western Canada.

While my research design has always followed a constructivist and grounded epistemology, my specific research questions and orientations have transformed within and between rounds of fieldwork. During the first two rounds of fieldwork completed during my MPhil., I was interested in questions about psycho-social recovery, resilience and

environmental perceptions of Fort McMurrayites. As such, my interview guides, focus during participant observation, and detailed notes of ecological conditions of picking sites differed from my later fieldwork, where I was concerned with affective atmospheres, Indigenous governance, and settler-colonial capitalism. As described above, the populations included in each round of fieldwork also differed. My data in Fort McMurray featured a majority hobbyist group of pickers, whereas I met primarily commercial harvesters and Indigenous permittees on NSN Whut'en Territories. I re-aligned these datasets through a reanalysis of my 2017-2018 fieldwork data, described in Section 3.5.2. However, I will note in the sections below how the shift in orientation between project phases influenced the nature of data I collected for each case.

3.4.1. Semi-Structured Interviews

In total, I have completed 83 semi-structured interviews (Richards & Morse, 2007) with 77 participants. These interviews lasted between 30 and 90 minutes in length, and most were conducted in-person in local cafes, homes, harvesting sites, or mushroom-buying camps. Most of these participants were white settlers (81%, $n = 63$) and 13 participants identified as Indigenous. The majority of these interviews were conducted one-on-one. However, in some cases it felt more appropriate to interview harvesters in groups, for example, a set of three siblings from Nadleh Whut'en who agreed to participate if they could discuss the harvest together.

Because of the relatively homogenous populations of morel harvesters, at least in the field sites and years when I was conducting research, representations of other racial categories were limited: for example, one hobbyist participant was a recent immigrant from China, and I met one young Black commercial harvester from Québec in 2019. Further, morel

harvesting is male dominated: overall, 74% of participants were men ($n = 57$), with even more of a contrast within the commercial harvest, where only 17% ($n = 9$) of commercially harvesting participants were women. A summary of interview sampling between both sites can be found in Table 3.

Table 3: Participant Sampling in Fort McMurray and NSN Whut'en Territories

Field Site	Dates	Participants	Commercial/ Hobby/Other ¹⁴	Settler/Indigenous /Other Racialized Group	Men/Women/ NB ¹⁵
Fort McMurray	May 2017 - June 2018	22	5	19	14
			17	2	8
			1	1	0
Site A Total			22	22	22
NSN Whut'en	May 2019 - June 2019	56	47	44	44
			3	11	12
			6	1	0
Site B Total			56	56	56

Because my interviews were semi-structured, I followed an interview guide for each participant, with open-ended questions falling into broad thematic categories (see Appendix A). I interviewed all participants with questions regarding harvesting knowledge and actions; wildfire, disaster and climate change; how mushroom picking fits into their work and life; as well as their interactions and feelings about the mushroom industry. As alluded to in the sections above, the transformation of my research orientations between my first and second

¹⁴ “Other” participants included First Nations permittees, land managers/owners, and industry experts.

¹⁵ Non-binary or those identifying as outside the gender binary

phases of data collection also transformed the material I collected—even if, on the surface, the method appeared to be the same between both sites. As such, my interview guide shifted from questions about morel ecology and oil production in Fort McMurray towards questions about Crown land and Indigenous permitting on NSN Whut'en Territories. I also edited my interview guides mid-fieldwork as new themes emerged or I reached saturation (Strauss & Corbin, 1998) on other topics, along with altering questions based on what I knew about participants' backgrounds and experiences (for example, whether they were locals to the area, or if they were primarily mushroom buyers instead of pickers).

While I conducted most interviews in-person, I also completed a small number of interviews over Skype between 2017 and 2018 with hobby and commercial harvesters who picked mushrooms in Fort McMurray. This was because it was very difficult to make “inroads” with the mushroom-picking community early on in my research, and so I was connected to these participants through snowball sampling after the picking season ended. Further, in 2018, I conducted follow-up interviews with eleven participants from Fort McMurray who I first met in 2017. These interviews involved asking for updates about their experiences with recovering from the wildfire a year later, and about their ongoing hunts for morel mushrooms and other wild foods following their initial experiences in 2017.

3.4.2. Participant Observation and Affective Ethnography

I also completed several hundred hours of participant observation (Laurier, 2016; Marshall, 2002) between 2017 and 2019 as I accompanied hobby pickers, commercial harvesters, mushroom buyers, and First Nations permitters in the field. In 2019, I lived and camped as a commercial harvester, working out of a tent and spending time socializing around the campfire at various mushroom buyers' camps.

Throughout fieldwork, I paid attention to and journaled about my own experiences in the burnt forest and in mushroom camps. These notes included my transformation from being a novice harvester who constantly thought about the mycological information I knew about morels while deciding where to pick, to an “articulated” commercial harvester, who could “feel” where mushrooms would grow by using an ambiguous sense of the look and “feel” of the forest. In Fort McMurray, I made notes of how I felt when visiting affectively charged sites (Chapter 5) with locals, as well as the frustrations and excitement of (not) finding our first morels. In 2019 on NSN Whut’en Territories, I also outlined my experiences participating in group discussions at buying stations and around the campfire in mushroom camps, and with struggling to make ends meet while trying to “make it” as a commercial harvester. The fieldnotes I wrote about my emotional experiences and affective encounters could be interpreted as what Frederik Bøhling (2007) describes as “fieldnote assemblages”, where my notes were a “constrained but open-ended process of gathering and combining a number of heterogeneous elements” in the field and which consider the “inseparability” of me as a researcher from the empirical and theoretical context of my research (p. 165). As such, my fieldnotes from the *participation* element of participant observation assured that my own embodied, emotional, and affective experiences were accounted for in my understanding, interpretation, and analysis of the post-wildfire morel harvest.

As outlined above, my transformation in research orientation between rounds of fieldwork—from a focus on emotions and resilience to one on affect and Indigenous jurisdiction, altered the way I navigated, experienced, and journaled about participant observation. Through my participant observation in Fort McMurray, I took on the role of a hobby harvester, (not always successfully) searching for morels with other hobby pickers

who used the process primarily to tell stories about the disaster. Because my focus was on the experience of hobby pickers *as well as* their environmental identity as Fort McMurrayites following wildfire, I adopted a similar casual harvesting schedule to my hobbyist counterparts. I lived in a rented apartment and frequented local businesses in Fort McMurray, worked at my “day job” during the workday, and picked mushrooms with other locals on the evenings and weekends. While I kept some field notes of my experiences in post-wildfire Fort McMurray, most of my notes with my participants were taken during harvesting and focused on the stories and *emotions* they told me about, rather than the affective atmospheres surrounding the harvest.

As I adopted the role of a commercial harvester in the second phase in 2019, the difference in intensity of the fieldwork experience was palpable. In just six weeks, I had spent several hundred hours harvesting morels alongside commercial pickers, living in a tent amid mushroom buying camps, and experiencing the affective atmospheres of the commercial harvest. As such, my field journal had significantly more entries than in 2017 and 2018, and, because of my new interest in the affective atmospheres of the harvest, included entries about my interpretations of the atmospheres at mushroom camps and in the forest, as well as disruptions to my sleep and the dreams I experienced while in the field.

My participant observation data in 2019 was also enriched through Claire’s daily field diary, which I used to challenge and support my own experiences of the atmospheres on NSN Whut’en Territories. I draw upon her diary entries most significantly in Chapter 6, where her entries about her “fresh” feelings about the mushroom harvest helped to demonstrate how affective life is transformed for pickers throughout the commercial harvesting season. Combined, an increased attunement to the affective and dreaming registers on NSN Whut’en

Territories contributed primarily to Chapters 6 and 7. However, this lens also allowed me to re-visit my data from Fort McMurray to understand how affective atmospheres influenced hobby harvesters in Chapter 5. Further, the participant observation outside of harvesting in the forest had a different focus between field sites. During my time studying hobby mushroom pickers, I attended the 2017 Alberta Mycological Association Annual Meeting and Festival, which is a gathering of non-commercial mushroom enthusiasts, whereas in 2019 I joined a commercial harvester at a craft to sell his mushrooms, including morels, to retail customers.

3.4.3. Ecological Surveying

In addition to qualitative data, I completed informal ecological surveying (Brower & Zar, 1998) modified to accommodate morel ecology (Winder & Keefer, 2008) to note participants' knowledge of morel ecology and the high-level ecological conditions of harvesting sites. In this case, informal surveying included making notes of the quantities and types of morels found in specific locations. I noted nearby tree, bush, and mushroom species, as well as a rough estimation of the proportion of tree death resulting from the fire and the depth of the duff layer¹⁶ remaining on the surface of soil. I completed surveying in both Fort McMurray and NSN Whut'en Territories. However, I put less emphasis on this data collection in my second phase of research as I focused more on the affective atmospheres of harvesting rather than the mycological knowledge of participants. As such, my field notes about specific harvesting sites contained less detail about the soil characteristics and duff

¹⁶ Duff is also known as tree litter and includes leaves, pine needles, and other organic material left on the surface of the soil.

depth following the fire, while maintaining detail regarding dominant tree species and proportion of tree death. Together, these data were central to my analysis in Chapter 4, *Producing Opportunity*, of morels as more-than-human agents in post-wildfire ecologies and the laboratory, in Chapter 5, *Capturing Opportunity*, about harvesters' capacities to select productive harvesting sites, as well as Chapter 6, *Maintaining Opportunity*, as I explore how mushroom companies draw upon morel ecologies to re-invigorate exhausted and frustrated workers.

3.5. Data Analysis

3.5.1. Transcription, Coding, and Memos

I transcribed interview and field note data during and immediately following fieldwork and wrote memos throughout the transcription process (Charmaz, 2006). While the volume of audio data to be transcribed was significant, with over 100 hours of interviews recorded, I chose to manually transcribe these interviews myself, as I treated the transcription process as an important part of analysis (Kowal & O'Connell, 2014).

Following transcribing interview data and digitizing my field notes, I began with a round of reading, coding, and memoing where I read the data to produce grounded codes. Following this initial analysis of the data, I performed line-by-line coding where I applied the themes produced in my initial reading while making notes of negative cases and new codes which emerged with a closer reading. I coded primarily for content, but also for elements of context, such as laughter, pauses, and sighs, which would allow me to gain a better understanding of the emotional elements of the interview. I used the software NVivo 12.0 to assist in the analysis and coding of my data. While I completed coding line-by-line,

similarly to how I would have coded without the software, NVivo allowed me to group and analyze codes based on participant characteristics, such as whether harvesters were hobbyist or commercial pickers, local or non-local to the area, Indigenous or settler, their gender, and other characteristics. This analytical tool, along with the ability to easily search keywords through my entire dataset, allowed me to more easily identify and reflect on negative cases in the data (Mayan, 2009). The memos I produced through transcription and allowed me to form broad themes in my data, which eventually formed the basis for the four analytical chapters presented in this thesis.

3.5.2. Re-Interpreting Data from Fort McMurray

As described above, my epistemological orientations and research foci shifted between the time I completed my MPhil. project in 2017 and 2018 and when I analyzed the data from my 2019 fieldwork. In order to maintain consistency in the analytical orientations and codes used throughout this thesis, I re-analyzed the data collected in Fort McMurray from 2017-2018, adopting the codes I developed through analysis of my 2019 fieldwork data. As Wasterfors, Åkerström, and Jacobsson (2014) describe, “using reanalysis, researchers may disentangle data from preceding perspectives and zeitgeists, make comparisons across time and cases, and frame data in a new way” (p. 467). In other words, the process of re-visiting and re-conceptualizing this data not only allowed me to coherently include it in this thesis, but also allowed me to reframe the data in a way which provided a stronger understanding of post-disaster processes, both in Fort McMurray and in the broader Western Canadian context.

As recommended by Wasterfors, Åkerström, and Jacobsson (2014), I revisited my raw data from my 2017 and 2018 fieldwork, including transcriptions, field notes, and

photographs. In certain cases, such as when coding for emotions or affective atmospheres, I also re-listened to the audio recordings of several interviews with a new sensitivity to participants' tones of voice or the atmosphere produced through the telling of their experiences. Through re-analysis of this case data through line coding and memoing (Charmaz, 2006), I was able to interpret the experiences of hobby harvesters following the Horse River wildfire using the same lens as those harvesting following the Shovel Lake fire. Within the larger context of the commercial mushroom harvest beyond Fort McMurray and hobby harvesters, I identified new dimensions of the data which I did not identify or utilize in my previous project. For example, I was able to use more specific codes around discussions of land tenure and tensions between hobby and commercial harvesters. Further, because of my attunement of affective atmospheres, I re-interpreted much of the discussion of the embodied and emotional experiences of hobby harvesters, from one which focused on concepts of psycho-social impacts and resilience, towards one which coded for affective atmospheres and embodied experiences of the mushroom harvest.

3.6. Positionality, Ethics and Accountability with Indigenous Communities

The significant role of a researcher's identity in the outcomes of research projects, particularly those adopting grounded theory methods, has been well-established (Charmaz, 2006). Further, work from feminist geographers has emphasized how recognizing power differentials and aiming for transparent reflexivity are important parts of conducting geographic research (McKay, 2002; Rose, 1997). This section examines how my own position influenced the generation of data across both field sites. I pay particular attention to how my decision to conduct fieldwork on unceded Indigenous Territories influenced the focus of this project.

3.6.1. Navigating Positionality on the Mushroom Trail

Mushroom pickers are a notoriously secretive group (Fine, 2008), and so I faced challenges in being welcomed within groups of both hobby and commercial pickers. Becoming a reasonably well-skilled “insider” within the mushroom-picking industry took several years, not only in terms of making contacts, but through the development of my own morel-picking abilities and intuitions. In some ways, this meant that it was good research strategy to focus my first rounds of fieldwork on hobby harvesters before moving on to the commercial industry once I had more experience. In 2017 and 2018, I was able to learn alongside hobby pickers and experience with them the unbridled excitement of finding a small handful of morels after several weeks of venturing out. In 2019, I discussed previous burns and fires with long-time pickers, and express frustration over a “slim” day of harvesting “only” 20 pounds of morels. Being closer to the skill and experience level of my participants in each phase of the project made it easier for me to relate to their experiences, understand the terms they used, and “prove myself” to be worthy of their time.

Of course, other elements of my identity beyond that of a mushroom picker affected the level of trust and forms of engagement between me and my participants. As Valentine (2002) outlines, researchers are never singularly “insiders” or “outsiders” when conducting ethnographic research; rather, we navigate how the manifold facets of identity can converge and diverge from participants. For example, most hobby and commercial mushroom pickers are men between 18 and 65 years of age, many of whom could be described as participating in discourses and behaviours which perpetuate “frontier masculinity” (Connell, 1993; Miller, 2004). Working alongside and interviewing these participants involved navigating various forms of behaviour which would have been unlikely to occur if I was also a man: for example,

throughout fieldwork, participants who were men made flirtatious comments about my appearance, doubted my ability to hike or lift crates of mushrooms, asked if I had a partner, and made unwanted physical contact. Of course, these experiences are not unique to my research, as similar experiences have been documented by other fieldworkers in male dominated (Lumsden, 2009) or “wild” places (Nash et al., 2019).

Misogynist encounters often led to awkwardness between participants and I as I chose to ignore the comments, remind them of the research study, or explain why such conduct was inappropriate. Beyond these moments of awkwardness, there is a chance that I was excluded from some activities and discussions between men at mushroom camps. However, from my perspective, the gendered dynamic between my participants and me, while presenting obvious challenges, often produced more detailed data than I expected. I found that when asked about their mycological or industry knowledge, men provided an incredible amount of detail, assuming that I was unaware of the most basic details about morel picking. Throughout interviews and during participant observation, I was able to utilize this dynamic to develop trust, as well as to ask many follow up questions for topics beyond mycological knowledge, including their emotional experiences. This helped produce very rich and informative interviews with my male participants.

It is also important to note how I *did* hold power in relationships with my participants. Sometimes, this power was through the nature of the stories they told me, about financial precarity and avoiding state surveillance, to drug use on the mushroom trail, to (what they considered) shameful experiences with post-traumatic stress disorder. Other times, this was implicit due to our different financial or transportation statuses, particularly among precarious commercial harvesters on NSN Whut'en Territories. For example, Claire and I

provided rides to participants who found themselves stranded on logging roads, and shared food and advice with pickers who found themselves in very difficult financial situations while harvesting mushrooms. My status as a researcher from a foreign university also highlighted socio-economic class differences between me and many of the commercial harvesters I met (hobby harvesters were more likely to have also completed higher education and have white-collar careers). I was entrusted with acting ethically and in solidarity with participants with vulnerabilities. Practically, this involved ensuring confidentiality and anonymity throughout the research process and offering transportation or moral support in the bush to the limited extent Claire and I were able. Finally, and most significantly, because of how settler-colonialism and the question of land permeate most interactions along the mushroom trail, the most significant facet of my identity which influenced the production of data was that I am a white Canadian settler from Alberta (Treaty 6 Territory).

3.6.2. “Settler” as Insider Identity

Like most of the morel mushroom harvesters whom I encountered during fieldwork, I am a white settler from Western Canada. This facet of my identity and relation to the land provided a distinct “insider” status when studying the mushroom hunt, particularly around questions about Crown land and Indigenous Territories and governance. I choose throughout this thesis to utilize the word “settler” instead of the broader term “white” as other ethnographers and scholars, including Tsing (2015), use in their work studying North America, because of its strength in clarifying my own and my participants’ relations to the land in Western Canada. This distinction is made easier due to the racial homogeneity of non-Indigenous participants within this work. Because I was clearly identifiable as a settler, harvesters were more open about their perspectives on the role of Crown land and the

Indigenous permitting efforts on NSN Whut'en Territories (see Chapter 7) than they would have had I not shared this identity.

Of course, the inverse of my insider status as a settler in morel mushroom camps also meant I experienced “outsider” status with the Indigenous harvesters and Guardians of the Land I interviewed. While many Indigenous harvesters were open with me upon meeting, several asked me questions about my research before agreeing to interview, including about what I thought about the industry, land, and First Nations permitting efforts. Once I was transparent about my stakes in the research, and my solidarity with NSN Whut'en in their efforts to govern the morel industry (see Chapter 7), these participants were willing to share their stories. My relationship with NSN Whut'en First Nations officials was also complicated by my planned follow-the-thing research design and role as a researcher from a United Kingdom-based university; I outline these challenges in more detail below.

3.6.3. Consent and Accountability with NSN Whut'en First Nations

Because of my focus on hobby harvesters and the limited commercial morel harvest following the Fort McMurray wildfire, I had little interaction or engagement with the First Nations on Treaty 8 Territories. The First Nations in the area, including Fort McKay and Fort McMurray First Nations, did not attempt to regulate or engage in the morel harvest, which primarily occurred on peri-urban areas surrounding Fort McMurray. While these First Nations take active roles in co-management of resources (Fort McKay First Nation, n.d.), the nature of Treaty lands means that these programs are less likely to circumvent provincial and federal governments than the activities of First Nations in British Columbia whose lands are unceded and not included in any treaty.

As outline in Chapter 7, Nadleh Whut'en, Stelat'en, and Nak'azdli Whut'en First Nations took an active role in the regulation and management of the morel harvest on their Territories. As their permitting program progressed, Nadleh Whut'en and Stelat'en First Nations were primarily involved in the programs' implementation and in communicating with interested parties (including researchers!). As such, I received consent from and remain in communication with representatives from Nadleh Whut'en and Stelat'en First Nations to conduct research on their Territories during my 2019 fieldwork and added several questions to my interview guide at their request, in order to maintain a reciprocal relationship with these Nations¹⁷. In order to assist the First Nations with future planning and collaborations with other Indigenous Nations in British Columbia, I prepared a report, presented to Nadleh Whut'en and Stelat'en First Nations in September 2019, to disseminate key findings. Following fieldwork, I continue to include the First Nations as part of the review process for publications resulting from research on their Territories, ensuring I have their feedback and consent regarding the information presented about their permitting program on any outputs, academic or otherwise.

My experience of conducting research on NSN Whut'en Territories experienced a significant change of direction during fieldwork. As I describe below, my original intent to utilize a follow-the-thing methodology during my 2019 fieldwork affected my ability to form a trusting and reciprocal relationship with NSN Whut'en First Nations. Because of the

¹⁷ While my research relationship is with Nadleh Whut'en and Stelat'en First Nations, I use the term "NSN Whut'en", which includes Nak'azdli Whut'en First Nation, throughout this work. I use NSN Whut'en in order to accurately reflect Nak'azdli Whut'en's involvement in the early stages of planning the permitting program, and their inclusion on official documents regarding the permitting program, signage on the Territories, and permits issued to harvesters in 2019.

transient nature of the industry, there is not much time to set up connections on the ground when following morels, including with the First Nations on whose Territories the harvest is taking place. Because of the fly-by-night nature of the morel hunt and my focus on following these harvesters, it was not possible to do the community-based participatory research or co-managed research that is deemed standard across many Canadian institutions (Castleden et al., 2012; Heikkilä & Fondahl, 2012; Koster et al., 2012). As described above, my approach to forming a relationship with NSN Whut'en was also complicated by the fact that I was studying a non-Indigenous population on Indigenous Territories. Despite the importance of settlers studying settler groups with a decolonial approach, I was at times unsure how best to remain accountable to Indigenous Nations while, at the same time, not necessarily studying an Indigenous community. As a result, I aimed to adopt what Liz Carlson (2016) describes as an “anti-colonial research methodology” for settler researchers studying settler groups. In particular, I adopted Carlson (2016)’s recommendations of maintaining “relational and epistemic accountability to Indigenous people” and “land/place engagement and accountability” (pp. 501-502) by forging a relationship with NSN Whut'en representatives and Guardians of the Land. While I managed this to a large extent through communicating with the First Nations officials during and after fieldwork, I outline an example of how I adapted my research plans in order to better respect First Nations’ data sovereignty and research needs.

3.6.3.1. Accountability in Research Methods: From Follow-the-Thing to Staying in Place

When planning my fieldwork in 2019, I intended to adopt a “follow-the-thing” methodology in order to trace morel mushrooms from the commercial harvest to distribution centers and retail and restaurant consumption. Follow-the-thing methods emerged as a

response to work from David Harvey and others to reveal the “fetish” of commodities, or in other words, reveal the social and geographical relations which are embedded within consumer products (1990). Anna Tsing (2016), in writing about the commodity chain for matsutake mushrooms, summarizes how the process of commodification transforms the social relations associated with these fungi. Tsing (2016), citing Marx (1867/1992), describes commodification as alienation, a process by which the maker (or harvester) and their social ties are removed from an entity as it is transformed into a commodity. For Tsing (2016), the process of commercially sorting matsutake mushrooms removes the linkages between the harvester and the consumer of the fungi, transforming these mushrooms into commodities, only to them to be transformed again with the cultural practice of gifting matsutake in Japanese culture. Follow-the-thing research examines these sorts of transformations in social relations along the supply chain alongside a large body of literature discussing how commodification crowds out the social relations from entities beyond mushrooms (see Benjaminsen & Kaarhus, 2018; Opel, 2004).

While follow-the-thing methodology has been used to trace “things” beyond physical objects and commodities (Christophers, 2011; Peck & Theodore, 2012), much of the work in this area has been following products, particularly agricultural ones including papaya (Cook, 2004), sugar (Mintz, 1986), and other commodities. While the methodology itself is perhaps somewhat under-developed in terms of internal critique, there has been important work on what is left behind or “missed” when following commodities. For example, Alison Hulme (2017) describes the importance of understanding the slippages in commodity chains, and what—or whom—is the “collateral damage”. I was expecting to outline how those who experienced wildfire disaster were the “collateral damage” (Hulme, 2017) of the mushroom

industry, and trace how the rich social relations hobby pickers developed while picking together to recover from disaster (Stanton, 2018) were altered and displaced by the dominance of commercial harvesters.

However, in order to “follow” the commercial morel industry as planned, I would need to travel to *multiple* burn sites throughout the season; NSN Whut’en Territories were just my starting point. This is because the commercial harvest travels from burn site to burn site, not only throughout the years, but also within a single season. Pickers travel from south to north and from low-lying areas to high altitudes to follow temperature gradients. As such, I planned to travel into more mountainous regions as the season progressed, following commercial pickers I had met on NSN Whut’en Territories. From there, I would travel along with the mushroom trucks to see the fresh mushrooms sold domestically in farmers’ markets and restaurants in Calgary and hoped to see them being shipped to Europe and China from large commercial warehouses in Vancouver. I also had loose plans to trace the mushrooms back to restaurants in Europe when I arrived back in the United Kingdom.

As I describe in Chapter 7, the influx of commercial morel mushroom harvesters put significant stress on First Nations by showing up, extracting mushrooms, harming the ecology, and leaving, and are part of larger settler-colonial extractive processes doing the same across different industries. When I learned that NSN Whut’en would be implementing a permitting scheme and were interested in data I could produce by interviewing the harvesters on their Territories, I realized I needed to adjust my fieldwork plans. By prioritizing following morels and morel harvesters instead of staying in place to provide information to NSN Whut’en First Nations, I would be extracting data from Indigenous lands and abdicating my responsibility as a settler researcher to contribute—in a small way—to the

protection of land and return of jurisdiction to Indigenous Nations by including the permitting scheme into my research questions. In response to their request for information on how settler harvesters responded to the permitting scheme, I adapted my fieldwork to remain “rooted” in place. This meant I forwent the opportunity to “follow-the-thing” across the commodity chain in favor of a place-based understanding of the industry which centered Indigenous jurisdiction and governance.

3.6.4. Participant Consent and Ethics

All phases of data collection for this thesis were approved by the Central University Research Ethics Committee at the University of Oxford. Before interviewing participants, I provided all participants with written information sheets regarding the study and encouraged them to ask questions about the research process. I obtained written consent from all participants to partake in the interview and participant observation processes, as well as for audio, video, and photography documentation. Because of the informal nature of mushroom picking and camp life, I periodically reminded participants of the study to ensure I received ongoing oral consent throughout the participant observation process.

3.7. Conclusion

This chapter outlined my epistemological and methodological approach to studying post-disaster opportunity within the morel mushroom harvest in Western Canada. I have discussed my grounded and ethnographic research approach, and I how I have aimed to remain attuned to affect, more-than-human agency, and Indigenous scholarship while addressing my research questions. Further, I have explained the practical steps I have taken throughout my research, including my approach to semi-structured interviews, participant

observation, and ecological surveying, and how I have adapted these methodological practices as my project and thinking about post-disaster opportunity has evolved.

While a grounded and ethnographic approach which centers the historical and ongoing realities of settler-colonialism is represented across all four analytical chapters of this thesis, each chapter highlights and makes use of a unique combination of data collected and analytical approaches. Chapter 4, *Producing Opportunity*, centers the role of more-than-human forest and fungal ecologies using semi-structured interview and ecological surveying data. Chapters 5 and 6, *Capturing Opportunity* and *Maintaining Opportunity*, draw from my affective fieldnotes and open-ended discussions with participants about their experiences with embodied trauma (or lack thereof) and precarity, and mushroom-related dreams, respectively. Finally, Chapter 7, *Governing Opportunity*, centers Indigenous resurgence and jurisdiction by exploring the affective atmospheres and common-sense which underlie settler responses to First Nation resource governance.

Most significantly, this chapter demonstrated how I navigated between Western literature and a grounded analysis of my settler participants' experiences of the mushroom harvest, with Indigenous knowledges, scholarship, and concepts of "rootedness" and "grounded normativity". I have demonstrated how I aimed to remain reflexive about my role as a settler researcher on Indigenous Territories and discussed how working on Indigenous Territories led me to reorient my research to be of interest to NSN Whut'en First Nations. While I outlined my approaches to data collection and analysis in this chapter, it is important to note that the writing of the remainder of this thesis was also part of an iterative, reflexive, rooted, and grounded approach to analyzing and studying post-disaster opportunity in settler-colonial Canada.

4. Producing Opportunity: Fire, Morels, and the Settler-Colonial Subsumption of Nature

4.1. Introduction

While walking in the ashes and amid blackened remains of trees, brush, and animals, there is evidence of ecological renewal in recently burned forests. Morel mushrooms appear, of course, but there is more to see along the mushroom trail. Pinecones, previously sealed tight with a waxy coating, have been heated so thoroughly that they have released fresh seeds. Look a bit longer, and tiny aspen seedlings grow, seemingly like weeds, throughout the harvesting season. In this space of disaster and renewal, the morel harvest assembles. Groups of morel harvesters are differentiated by their motivation for harvesting morels, experience of disaster, but also—in what became increasingly apparent throughout my years of fieldwork—their identities as local Indigenous peoples or as (primarily) settler commercial harvesters. Throughout three seasons as a morel harvester and researcher, I noticed first the disastrous impacts from wildfire disaster in the production of fungal opportunity. This chapter outlines the lessons in morel production which came later: namely, the role of more-than-human boreal fire ecologies and their interactions with settler-colonial structures, and capitalism.

Commonly adopted frameworks from disaster researchers often suggest that processes of environmental and socio-political change after disasters are the result of human “social actors” capturing opportunities which emerge as a result of *passively received* disaster

impacts (Birkmann et al., 2010; Brundiers & Eakin, 2018). From this perspective, trees and fungi simply *receive* the impacts of wildfire disasters, being burnt in the forest with no active role in the disaster, while *social* actors, such as morel harvesters, capture the opportunity presented by these impacts. In contrast, this chapter bridges post-disaster geographies, historical ecology, and more-than-human political ecology (Lorimer, 2010; Robbins, 2003; Todd, 2014; Tsing, 2015) to understand how socio-political histories work together with more-than-human agency to produce opportunity in the post-disaster context.

This chapter performs two key tasks. First, the hybrid nature of the chapter lies between contextual and empirical analysis. I integrate an in-depth examination of ecological and historical literature alongside interview and field note data from both research sites. This helps to situate the production of disaster opportunity within the place-specific context of Western Canada, including its unique ecologies, histories and ongoing settler-colonial conditions. Second, this chapter questions whether the advent of fire morel mushroom harvesting in Western Canada is the result of humans acting alone in the post-disaster landscape. As I will elaborate below, harvesters who hope to pick morel mushrooms must negotiate with non-human actors in order to benefit from their post-disaster activities. In turn, plant and fungal capacities to produce more-than-human opportunity are influenced by human histories and socio-political structures. As such, this chapter examines how settler-colonial histories, ecologies of the boreal forest, and *Morchella*¹⁸ together produce *contingent*

¹⁸ *Morchella* represents the family of several species of morels, including fire morels. I use the term *Morchella* without the species indicator (*sp.*) throughout this chapter for two reasons. First, the taxonomy of fire morels is complicated and not definitive, and second, for readability.

opportunity for human harvesters, with manifold possibilities for future directions of the commercial industry.

I will answer these questions by first broadening the “social actor” in the post-disaster space to include boreal forests, trees, and fungi, by identifying how these more-than-human actors produce wildfires and post-wildfire opportunity through their lifecycles and ecologies. Next, I shift focus to the development of the conditions necessary for the viability of a commercial morel harvest in Western Canada. In line with neo-Marxist approaches to political ecology, I bring the concepts of the subsumption (Boyd et al., 2001; Palmer, 2020) and taming (Prudham, 2003) of nature into the settler-colonial context. I argue that through fire suppression policies implemented by the Canadian settler-state, fire ecologies have shifted from producing post-fire opportunities which are distributed among non-human species and Indigenous peoples, to those which are primarily captured by the settler commercial harvesters of morel mushrooms. Working from this understanding of a failed attempt to subsume nature at the landscape level, I return to the discussion of more-than-human agency through describing the challenges that morel reproductive ecologies present for participants in the capitalist wild mushroom market. I draw upon the work of Prudham (2003, 2012), and Smith (2007) to conceptualize morels as uncooperative labourers in the forest and the lab. I demonstrate how the post-disaster opportunity of morels is contingent upon not only disaster impacts alone, but relations between capitalist societies, industrial organization, forest ecologies, and *Morchella* agency.

Because of their strange ecology and eccentric fruiting behaviours, the boundaries between scientific knowledge and folk knowledge are blurred regarding morels’ ideal fruiting conditions: many mycological studies and reviews of morel mushrooms rely heavily

on the knowledge produced by mushroom pickers (Pilz et al., 2007) and may even defend or question their results when they differ from common harvester knowledge (Greene et al., 2010). As such, my discussion of morel ecology echoes Barron (2010)'s accounts of collaborative, patchy, indeterminate body of knowledge about the fungi. I draw from formal mycological and ecological literature, along with discussions with harvesters and my own experience on the morel trail in Fort McMurray and NSN Whut'en Territories to discuss the relations between fire, forest, fungi, and settler-colonialism.

4.2. Human Disaster and More-than-Human Opportunity: Boreal Fire Ecologies

This section aims to re-center the role of so-called nature in the disaster context by outlining how plants, fungi, and fire ecologies work together to produce more-than-human opportunity for regeneration and reproduction in the boreal forest. Only after these actors work together do human opportunities—for recovery, commerce, or otherwise—emerge. I demonstrate how, through their opportunistic lifecycles, morel mushrooms act to *translate* non-human post-fire opportunities into tangible opportunity for human beneficiaries to capture.

4.2.1. From Human Disaster to More-than-Human Opportunity

While indisputably disastrous for human communities like Fort McMurray and NSN Whut'en First Nations, wildfires are central to many non-human populations and forest processes. Boreal and sub-boreal forests have evolved with fire, and those in northwestern Canada rely on periodic fire anywhere from every twenty to five hundred years to function and support life (Weber & Stocks, 1998). Fire, while temporarily damaging or disastrous for individual organisms, is important for maintaining long-term inter-species relationships and

for processes of ecosystem renewal. For example, when fires burn through the forest floor, the duff, a layer of dead leaf and other plant and animal litter, is consumed, which increases the nutrients available in the soil following wildfires (Ward et al., 2014). Increased nutrient levels allow for greater forest productivity, where early-succession plants, along with those that survived low-intensity fires, grow faster and with greater vigour than before the burn.

Beyond forest-wide increases in productivity following fire, boreal plants have evolved to complete their life-cycles with fire by adopting one of five key strategies. These biological and reproductive strategies range in a spectrum with boreal plants featuring fire-negative to fire-embracing characteristics. Within this spectrum, ecologists describe plants as “fire-resisters”, which survive low and medium-intensity fires with low-flammability; “fire-endurers”, which survive below ground and re-sprout from buds deep beneath the soil surface; “fire avoiders”, which grow very old and encourage intense crown fires; “fire invaders”, which have adapted to quickly re-colonize freshly-burned areas; or “fire-embracers”, which form wax-coated seeds high in the canopy to be released only during fire (Rowe, 1983; Wirth, 2005). Together, these species do not experience fires passively, but instead take active roles, supporting and encouraging the fire process through their biophysical characteristics.

Fort McMurray and NSN Whut'en lie in boreal and sub-boreal ecological zones, respectively. The dominant tree species in these forests are white and black spruce (*Picea glauca* and *Picea mariana*), and lodgepole (*Pinus contorta*) and jack pine (*Pinus*

banksiana)¹⁹. Coniferous trees like spruce and pine are late-succession species, meaning while they take a significant amount of time to enter and mature in the landscape, they encourage the spread of large, intense, infrequent fires through their fire-adapted physiological characteristics. For example, black spruce, lodgepole pine, and jack pine are all deemed “fire embracing” (Wirth, 2005). From these trees’ perspectives, fire is something to be encouraged in order to complete their sexual lifecycle. Fire embracing trees encourage fires to spread and increase in intensity. These trees feature flammable needles, and, in the case of black spruce, low-hanging branches which encourage surface fires to travel upward to the canopy for rapid spread with the wind. White spruce is “fire avoidant”: these trees do not have seed dispersal specifically related to fire. Instead, white spruce reaches maturity in the absence of fire, and is frequently a symptom of a very long fire cycle. When fires start in white spruce stands, these highly flammable trees ignite easily, and die easily, spreading wildfire rapidly through the canopy (Wirth, 2005). These crown fires, which burn intensely and travel quickly through the tree canopy with the help of wind, led to the wildfire disasters in Fort McMurray in 2016 and NSN Whut’en Territories in 2018. It is no coincidence that the Horse River wildfire, which reached over 150,000 hectares, occurred in a forest dominated by white and black spruce.

For these boreal species, fire events are imbued with opportunity to reproduce, enter new landscapes, and benefit from increased soil fertility. *Morchella* are another group of opportunistic boreal species which rely on wildfire to reproduce and spread to new areas, and

¹⁹ While the presence of these species has been consistent throughout long histories, the composition of the boreal has shifted somewhat as a result of the timber industry, and, as I will describe later, fire suppression policy introduced by the settler state.

they do so spectacularly: following the death of their coniferous-tree relations, *Morchella* produce thousands upon thousands of kilograms of morel mushrooms fruiting amongst the blackened trees the spring following fire.

4.2.2. *Morchella* as Fungal Opportunists

Like all mushrooms, the fire morels harvested in Western Canada are just one stage of the fungal lifecycle: the sexual fruiting body. *Morchella* spend most of their lives as mycelia underneath the soil's surface. *Morchella* are both mycorrhizal (connectors), where they forge relations with tree and shrub species, and saprobic (decomposers), where they consume fallen leaf litter and soil microbes to decompose and recycle nutrients for the rest of the forest (Pilz et al., 2007). Only at one short point in the lifecycle of the *Morchella* do they produce mushrooms: when they are ready to sexually reproduce and spread their spores to new landscapes (Figure 7).

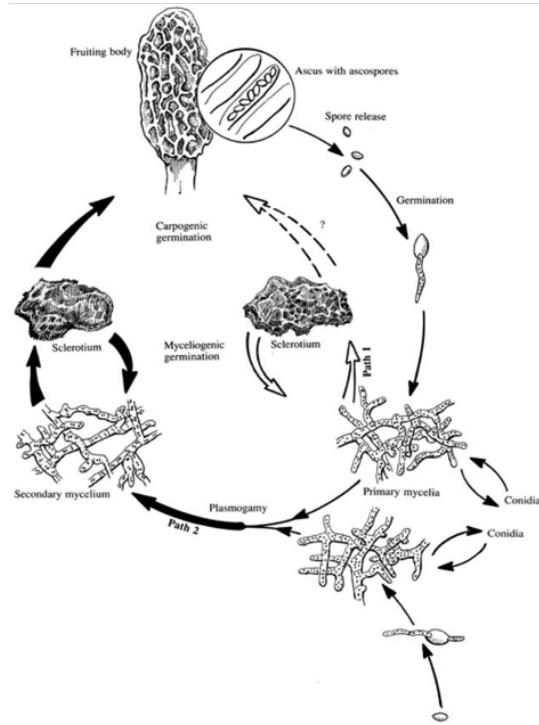


Figure 7: Simple life cycle of morel mushrooms as proposed by Volk and Leonard (1990).

While species of *Morchella* exist which do not rely on forest fires to fruit, in North America, fire-adapted species are the most abundant (Du et al., 2015). For fire-adapted species of *Morchella*, the possibility for fruiting events emerges after a massive wildfire kills most the fungi's tree companions. According to both mycologists and harvesters, fruiting is most productive in areas where there is near 100% tree mortality, and where the forest floor has burned so thoroughly there is little duff covering the mineral soil (Greene et al., 2010; Pilz et al., 2007). In preparation for fruiting, the mycelia produce sclerotia: tight, energy-filled bundles of vegetative flesh. If conditions are precisely favourable, meaning that the soil is warm, moist, and possibly also that microbial competition in the soil is relatively minimal (Pietikäinen & Fritze, 1993; Pilz et al., 2007), the sclerotia go on to produce morel mushrooms. These mushrooms pierce through the burnt soil and what remains of the forest

duff layer to grow and mature. As the mushrooms dry, morels release thousands of spores into the forest air to spread into new areas and produce more mycelia, starting the cycle anew.

Morels are not in as close relation with their tree hosts as other edible mushrooms such as pine (matsutake) mushrooms (Hosford, 1997) or chanterelles (Pilz, 2003). These fungi are associated with a small number of tree species and may fruit near only one particular tree host every year (Field Notes, June 2019). Instead, fire-adapted morels have associations with various deciduous trees (Kuo, 2005; Winder, 2005), but are most often found alongside spruce, pine and fir (Keefer, 2005; McFarlane et al., 2005; Pilz et al., 2007). In other words, *Morchella* fruit most extravagantly in well-established stands of conifer forests, which are most likely to sustain large, infrequent-but-intense, disastrous-to-human-communities fires.

4.2.3. Translating Fire into Human Opportunity

The active response of forest plants and fungi to wildfire impacts is notable to the people who live within boreal forests and experience forest fire disasters. The increase in productivity and plant vigour was noticeable to those who had experienced wildfires in Fort McMurray and NSN Whut'en, even to untrained eyes. Despite evidence of destruction, harvesters frequently commented on the health of early-succession post-fire foliage and the intense colour of green that returned to the post-fire landscape (Figure 8). As Joanna²⁰, a middle-aged Diné woman living in Fort McMurray described it:

And as we were nearing Fort McMurray, and everybody's getting ready for that big black thing, but I was surprised how green everything was. How green the grass was. How green the leaves were. You were just like, wow. I'm coming home and how tall the grass was! I'm talking to my sister, and she used to be up North. She said that

²⁰ I have used pseudonyms for all participants throughout this thesis in order to preserve their anonymity.

stuff is biodegradable, it's nothing toxic. And there's phosphate, and that's what plants use with leaves, so that's what made everything so green. (Interview, June 2017)

Further, in both Fort McMurray and NSN Whut'en Territories, local people who experienced financial or emotional loss from the wildfire often discussed with surprise the quick return of fire-loving plants following the wildfires, including aspen seedlings, grasses, and shrubs, along with the way that "nature was resilient". For example, Amanda and Ned, two settler locals on NSN Whut'en Territories, described how despite the damage to infrastructure and the length of time it will take for the ecosystem to recover, the early growth remained "hopeful":

Amanda: Now we can't even get to certain places because the bridges are burnt out.

Ned: And they won't replace the bridges.

Amanda: But it is a nice feeling, seeing the green that's in there already. Like, seeing that. That's hopeful.

Ned: It's going to take a thousand years for all of this to recover.

Amanda: But it's nice to know how resilient the forest actually is. (Interview, June 2019)



Figure 8: A morel harvester navigating the fast-growing, green, early-succession plants in the post-fire landscape. Fort McMurray, June 2017

While many harvesters interpreted the growth of early succession plants as a sign of hope for recovery after the wildfire, for those who experienced the fire as a disaster, these signs were not sufficient alone to “reclaim their relationship with the forest” (Interview, Roger, June 2017). Many felt anxieties, grief, and fear following the wildfire. As a result, they expressed desires for the forest to produce tangible (for humans) benefits from this regrowth, or “a silver lining” for them to feel included in this ecological process of regeneration and opportunity. As Roger, a Fort McMurrayite harvester put it, humans should be able to benefit from this post-fire regeneration because “nature owes it to [them]” (Interview, June 2017). For these harvesters, while the visual return of plant growth in the landscape was a sign of hope, they wanted something which connected them more viscerally to the processes of regeneration.

Morchella provide this translation of forest regeneration to material human benefit following wildfire disasters through their reproductive strategy of producing edible

mushrooms. These mushrooms, in turn, allow for “delicious”, “gourmet” culinary experiences or participation in a commodity market, depending on the inclination of the harvester. *Morchella* utilize the same nutrients which produce the lush green colour of the grasses and shrubs that captivated the attention of residents of Fort McMurray and NSN Whut’en Territories. The fungi’s opportunistic reproductive cycles translate the resilience and regeneration of the post-wildfire forest into an edible product for humans, who, alongside deer, elk and squirrels, enter the burnt forest to harvest them. While the green colour of the regenerating forest provided local people with hope for the boreal’s resilience, it was the prospect of finding morel mushrooms that brought many of them back into the forest following disaster.

However, it is not only local peoples who experienced wildfire disaster who harvest morel mushrooms. In fact, the vast majority of morels are harvested by transient commercial pickers. These harvesters pick the mushrooms in order to sell them into an international market, where they are primarily shipped to high-end restaurants and retailers in Europe (Interviews, May 2017, June 2019). Like the fire-embracing plants and fungi of the boreal, commercial harvesters thrive on large, disastrous fires. Because of fire morels’ needs for large-scale tree death in order to fruit *en masse*, commercial morel harvesters and buyers in Alberta and British Columbia seek out intense fires and typically do not bother travelling to fires that are not over 500 hectares in size (Field Notes, May 2017). Smaller and less intense fires just don’t produce significant quantities of morels, so are not worth commercial harvesters’ time. Given this context, the following section explores the emergence of the (settler dominated) commercial morel industry within the broader structure of Canada’s settler-colonial history.

4.3. Settler Colonialism and the Subsumption of Fire Ecologies

While helpful to highlight non-humans' roles in the production of post-fire opportunity, studying apolitical fire ecologies is insufficient to understand the unequal distribution of morel harvesting opportunities between transient commercial harvesters and local peoples, particularly the Indigenous First Nations on whose Territories morels fruit. In terms of the volume of morels harvested, transient commercial harvesters are the greatest beneficiaries of the morel harvest. When working and living with these harvesters in mushroom camps, it is very easy to recognize that the majority of these commercial morel harvesters are settlers. Of over 50 morel harvester and buyer participants I met who regularly participate in the transient mushroom-picking "circuit", meaning they travel to sites which are not near their homes, only three were Indigenous.

This section aims to make sense of this surprising distribution by connecting eco-Marxist work exploring the "subsumption" (Boyd et al., 2001) and "taming" (Prudham, 2003) of nature with the settler-colonial history of fire management in Western Canada. I connect the settler-state's view of both boreal wildfire and Indigenous peoples as "problems of nature" (Boyd et al., 2001) with their (ultimately unsuccessful) attempts to tame them. I suggest that the mass fruiting events which are conducive to the commercial mushroom harvest is an unintended consequence of the settler-state's attempts to tame boreal fire ecologies for the benefit of the Canadian timber industry in the nineteenth and twentieth centuries.

4.3.1. Before Disaster: Indigenous Fire Management

Colonial understandings of pre-contact forests often involve racist notions of pristine, unoccupied “wilderness” (Cronon, 1996) or “terra nullius”. Settlers and the “Crown” assumed that lands were unoccupied—or, if occupied, not managed or utilized with “higher land uses”, such as farming or plantation forestry, which would influence forest ecological processes. These understandings persisted well into the 20th (and 21st) century. In the British Columbian and Albertan context, settler anthropologists and historians have described Indigenous peoples as “hunter-gatherers”, with the assumption that they had no active role in managing the habitats of their food sources (see Drushka, 2003).

However, it is now widely acknowledged that Indigenous peoples had and continue to have long-term, active roles in boreal forest ecology, understood by social scientists as “Traditional Ecological Knowledge” (Berkes, 2017). While not recognized by colonizers, pre-contact Indigenous peoples in what is now known as western North America took active roles in horticulture and plant ecologies. These Nations were involved in tilling, weed management, fertilizing, seed dissemination, and other horticultural interventions for a variety of food and medicinal plants (Lepofsky & Lertzman, 2008; Turner et al., 2013). One of the most central activities of Indigenous peoples in areas now known as British Columbia and Northern Alberta in the management of forest ecosystems was through the controlled use of fire (Gottesfeld, 1994; Johnson, 1999; Lewis, 1982; Norgaard, 2019).

Frequent and controlled burns served several purposes for Indigenous communities. Often, they were used in order to manage the succession of the forest, encourage the growth of shrubs, particularly berry patches, and prevent the encroachment of conifer forests, which appear later in post-fire forest succession in the boreal (Gottesfeld, 1994; Kimmerer & Lake,

2001). For example, Wet'suwet'en peoples, whose Territories neighbour NSN Whut'en Nations, burned berry patches as frequently as every four years in order to prevent the encroachment of conifer trees (Gottesfelt, 1994). While there are no formal anthropological studies which have explored the historical uses of fire among NSN Whut'en First Nations specifically, according to a neighbour of Nadleh Whut'en, members of the First Nation used fire in 2018 to attempt to reduce the fire risk to the community (Interview, Martin, June 2019), though this was not formally confirmed by Nadleh Whut'en representatives.

Importantly, beyond managing forest succession in order to maintain mixed age stands and wild food plants, frequent controlled fires also reduced the fuel load in areas near settlements, hunting sites, travel routes and other significant locations. These fires reduced the likelihood of extreme fire events which could lead to disastrous effects on human communities, by keeping coniferous trees far away from people. Thus, prior to European contact, Indigenous peoples lived and worked *with* fire in order to provide varied habitats for non-human plants and animals, as well as reduce the frequency of disastrous fire events for human communities (Boyd, 1999; Kimmerer & Lake, 2001; Lake & Christianson, 2019; Norgaard, 2019).

4.3.2. Settler Colonialism and Untameable Boreal Fire

As Wolfe (1999, 2006) and others (Simpson, 2016; Tuck & Yang, 2012) discuss, settler colonialism is not a historical event, but rather an ongoing social structure based upon the pursuit of Indigenous land. As such, from the fur trade to settlement to post-confederation resource management, natural resource extraction and appropriation of land for settler use was and remains central to Canada as an extractivist settler-state (Willow, 2016). Of primary importance to the British empire (and Canadian settler-state following confederation in 1867)

was the development of agricultural homesteads to encourage settler occupation across the prairies, as well as timber and forestry industries. These uses of land brought European settlers into what they deemed was unoccupied “wilderness”: space to be controlled, dominated, and tamed (Catton, 1997; Deur & Turner, 2005; Kimmerer & Lake, 2001). Settlers brought change to forest ecologies: they clear-cut lands for homesteads, dispossessed Indigenous peoples from their fire-managed lands, and brought with them an entirely different way of understanding the relationship between forests, fires, and humans than those practiced by Indigenous peoples.

There was some settler use of fires in the west as a means of clearing lands for agricultural use and to assist in the mining industry (Drushka, 2003; Parminter, 1995; Pyne, 2011). However, as settlement moved from east to west and inland from coastal areas and waterways and into wildland-urban interfaces, forest fires were increasingly a concern for settler communities and homesteads, which were vulnerable to fire due to their wooden construction (Pyne, 2011). More importantly for the settler-state, however, was the danger of forest fires for the emerging and lucrative forestry industry, which rapidly grew in significance in Alberta and British Columbia in the early 1900s. With fires often started by settlers (Lutz, 1959; MacMillan, 1915), unprecedentedly large wildfires were seen not only as dangerous for homesteads, but also as economically disastrous for the British, and later Canadian, forest industries. Reports from British Columbia at the time lament the economic loss from forest fires (MacMillan, 1995), and British imperialists expressed growing concern over “the loss through fire of capital stock in soil and timber” (Powell, 2007, p. 864). For the forestry industry, wildfires (and Indigenous peoples) were seen as a “problem of nature” and a force to be controlled in order to facilitate the extraction of timber.

4.3.3. Subsuming Fire Ecologies

While typically used in the context of capitalist (but not necessarily settler-colonial) industrial relations, Boyd, Prudham, and Schurman (2001)'s discussion of the formal and real subsumption of nature is helpful to understand the settler-state's interventions to address this fiery problem of nature. The authors extend Marx's concept of the subsumption of labour to describe the attempts of capital to move from treating ecologies as fixed to transforming them through the use of science and technology in order to facilitate accumulation:

Under the formal subsumption of nature, firms confront nature as an exogenous set of material properties and bio-/geophysical processes, but are unable to directly augment natural processes and use them as strategies for increasing productivity. In contrast, under the real subsumption of nature, limited to biologically based industries, firms are able to take hold of and transform natural production, and use this as a source of productivity increase. (Boyd et al. 2001, p. 557)

Work adopting this concept have focused primarily on the transformation of individual species' characteristics through plant improvement efforts (for example, Kloppenburg, 2005). However, Prudham (2003) describes the process of *taming* nature in order to facilitate the accumulation of capital in nature-based industries. Here, I suggest that in the Canadian West, provincial and federal governments attempted the real subsumption of nature *at the landscape level* through the taming of boreal fires. The concept of subsumption at the landscape level has already been considered in North American forests, with respect to wood pellet production, "vegetal labour", and processes of "thinning" (Palmer, 2020). However, despite Kari Noorgaard (2019)'s argument that settler fire suppression was capitalist *and* colonial violence, an explicit link between capitalist modes of forest production and settler-colonialism has not yet been made when discussing subsumption in North American forests. Here, I demonstrate how the settler-state aimed to transform and fire

ecologies, not only to protect the timber industry from the capital losses associated with wildfires and increase yields, but as part of ongoing Indigenous dispossession. To do this work, a new management tool was introduced in the boreal forest in the late nineteenth century: wide-scale fire suppression.

Fire suppression policies were introduced by federal and provincial governments in the late 1890s and were significantly expanded by the 1930s and 1940s. These measures included the introduction of firefighting crews, mass public service campaigns about wildfire risk, and laws restricting fire setting on forested lands. The Forestry Service also forcefully restricted and ended most, if not all, Indigenous burning practices in Western Canada—often using criminal prosecution and infiltration of Indigenous communities to achieve their aims (Gottesfeld, 1994). At the same time, slash-and burn fires used by settlers were policed much more leniently, with no settler convictions of fire-setting occurring until 1921 (Pyne, 2011). Kimmerer and Lake (2001) highlight the philosophical differences between Indigenous and settler approaches to fire:

The policy of fire suppression in Western society arises from the myth that nature can be controlled. Ironically, trying to control nature through fire suppression has led to greater un-predictability. The indigenous worldview emphasizes the dual nature, creative and destructive, of all forces. Fire can be a force for good as it warms homes and stimulates grasses, but it can also be immensely destructive. The role of humans is not to control nature, but to maintain a balance between these opposing forces. (p. 38)

These approaches are further echoed in other works exploring Indigenous fire practices in the boreal (Boyd, 1999).

As expected, the transition from regular, intentional burning practices to fire suppression policies from settler colonial governments significantly altered fire regimes in Western Canada. In areas near Indigenous and formerly-Indigenous settlements, the absence

of regular cultural burning meant that fire cycles lengthened. Forest succession, previously limited by the burning activities of Indigenous peoples, took place throughout the region: grasses became shrubs, which became deciduous trees, which became conifers. Following the introduction of fire suppression policies, mixed-age stands, a common feature of the boreal landscape prior to settler intervention, were replaced by single-aged stands, as occurred elsewhere in western North America (Barrett, 2000). Of course, these single-aged stands were not mere replacements of the forest which existed prior to settlement. Once trees are felled for timber, they are re-planted in same-aged stands of the most profitable trees: which, in British Columbia, is often pine and spruce. Over time, both "natural" and planted stands aged, and the boreal became dominated by late-succession conifer trees, such as lodgepole pines, jack pines, and, later, with black and white spruce (Figure 9).

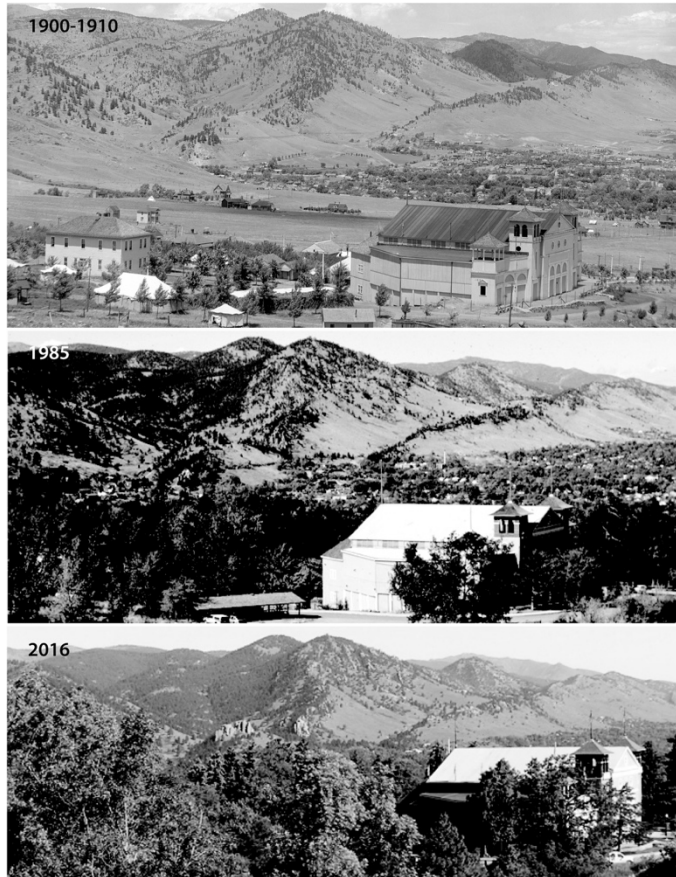


Figure 9: Forest succession under settler fire management in Boulder, Colorado, 1900-2016. (Source: Hagmann et al., 2021).

Ironically, while fewer total fires are burned and fire cycles have generally lengthened since fire suppression policies were introduced, these policies have led to an increase in size and intensity of wildfires, including the development of so-called “mega fires” (Stephens et al., 2014), such as the Horse River fire in 2016. While climate change contributes to mega-fires, they are also a result of both the transition toward more highly flammable tree species, as well as a buildup of dense fire fuel on the forest floor (Agee, 1998). Settler aversion to fire and desire to control and tame fire’s role in the boreal forest has shifted its status as kin and tool in producing mutualistic, flourishing landscapes for

Indigenous people and non-humans, to a source of disaster—the effects of which disproportionately affect First Nations people (Asfaw et al., 2020; McGee et al., 2015).

This is not the first study which has noted the relationship between Indigenous dispossession, settler fire suppression policies driven by extractive capitalism, and fungal opportunity in North America. Anna Tsing (2015), in her writing about matsutake (pine) mushroom harvesting in Oregon State, also describes the transformation of fire ecologies through the dispossession of Indigenous peoples and the resulting radical changes to fire management in the North American west. In Oregon, U.S. fire suppression policy also allowed for forest succession. As a result, lodgepole pine, which is closely associated with matsutake fungi in the region, has been allowed to reach maturity, leading to regular fruiting of mushrooms. As Tsing (2015) describes:

The budding presence of matsutake mushrooms, their mycelia entwined with lodgepole roots, is an unintended consequence of the most famous Forest Service mistake in the interior forests of the American West: the exclusion of fire. (p. 201)

To Tsing, the “mistake” of fire exclusion policies led to “serendipitous” worlding by lodgepole pine, matsutake mushrooms, and their primarily Southeast Asian and settler harvesters. While she briefly discusses the dispossession of Indigenous Klamath peoples, she suggests they benefit from these new ecologies as sometimes-harvesters of the mushrooms. However, morel mushrooms in Western Canada tell a different settler-colonial fire story. For Tsing (2015), the question of forest management lies between foresters, who want to thin the forest in order to prevent forest fires, and harvesters, who fight against thinning in order to save their patches. However, *Morchella* ecology leads us to a different question, around which social groups are harmed, and which benefit, once these precarious settler-colonial forest ecologies eventually burn down.

4.3.4. “Morels are White People Food”: Settler Fire Regimes and Morchella Ecology

Contemporary disastrous forest fires often burn too hot, uncontrolled, and large to provide the same kinds of food plant opportunities which emerge in the long-term following the kinds of small, low-intensity fires associated with Indigenous fire management. Nonetheless, post-fire opportunity continues to emerge following wildfire disasters, even in the settler-colonial context. Mass fruiting events of morel mushrooms, which are significant enough to support an international industry, are one of these opportunities. Shifts in the benefits of ecologies from Indigenous peoples and more-than-human communities to settlers and colonial powers has occurred in non-disaster settings (Tsing, 2012a). The Western Canadian morel harvest, however, provides an example of how settler colonialism has not only made fire disasters more likely for Indigenous and settler communities. Instead, settler-colonialism also co-opted the *post-fire* landscape to transform the more-than-human production of opportunity after fire into opportunities that are more likely to exclusively benefit settlers over Indigenous peoples and diverse plant communities.

Despite extensive consumption of wild plants and fungi by Indigenous people across the Canadian west, there is little indication of pre-contact consumption of morel mushrooms by Indigenous Nations (Kuhnlein & Turner, 1991). This lack of interest in morel mushrooms when compared to other wild foods has also been reported in present-day Indigenous First Nations (Doyle et al., 2012; Kuhnlein et al., 2013). It is surprising given the long-term use of fire among Indigenous peoples in the region to maintain relationships with wild food sources (Gottesfeld, 1994; Kimmerer & Lake, 2001; Lake & Christianson, 2019; Lewis, 1982). This phenomenon persisted following the Fort McMurray wildfire and the Shovel Creek Fire in NSN Whut'en Territories: Indigenous interest in morels, in terms of harvesting and

consumption, also appeared to be relatively low in the 2017-2019 harvesting seasons in both regions.

Further, among the relatively few Indigenous pickers active in these areas during my fieldwork, most had not eaten morel mushrooms before, and some did not intend to try them upon harvesting. Instead, for these Indigenous participants, harvesting morels on their Territories was an activity they did because *settlers* were coming into their Territories and doing it. For example, as Joanna, a Diné Woman from the Northwest Territories now living in Fort McMurray, described it:

My first experience with morels is up north when I moved back home. I would always see people. Every year, they're posting that there's going to be morels. So, I knew, all these fancy restaurants down south would buy them. So, when I went, I asked my sister about it... she said, "wherever there's a fire, usually the year after, a lot of people will go, you see lots of vehicles on the highway, they're foragers". And then she was telling me about the growing season. So, when we came back here, we were talking about it, because it's what they do up North. (Interview, Joanna, June 2017)

For these Indigenous harvesters, fire morels represent post-disaster opportunity, certainly, but the extent and nature of these opportunities is distinct from those accrued to transient commercial pickers, the majority of which are settlers. In fact, Indigenous engagement with morel mushrooms was often in response not to the post-fire flush of morels itself, but the settlers who gather on Indigenous Territories to harvest them. This phenomenon has been reported in fire-morel areas other than Fort McMurray and NSN Whut'en Territories as well ("Jessica Minoza", 2015). One Indigenous harvester summed up the attitude of most Indigenous participants, as he waited in line to sell morel mushrooms to a buyer in NSN Whut'en Territory: when asked if he would eat any of the morels he harvested that day, he replied with a laugh, "Of course not; morels are white people food!" (Field Notes, June 2019). As it turns out, this participant was largely correct: morels are fungi associated with white

(settler) peoples, not only in terms of culinary interest, but also through the introduction of fire regimes which now lead to large fruiting events.

One of the most frequent questions commercial morel mushroom harvesters receive from amateur or non-harvesters regarding the fire morel economy is whether morel pickers intentionally set forest fires in order to harvest the mushrooms (Field Notes, May 2017, June 2018, June 2019). Ironically, however, the fire regimes which emerge with regular, intentional anthropogenic burning, such as those that existed in pre-contact Indigenous Nations, are not particularly useful for mass fruiting of *Morchella* (Table 4). Instead, morels need intense, near-complete burns of large, established conifer stands in order to fruit *en masse* (Field Notes, June 2017, June 2019). These are the same types of forest stands which have been encouraged through the widespread adoption of fire suppression policies and single-aged stand plantations under settler-colonial timber management (Figure 10).



Figure 10: A burnt plantation-style stand of pine trees on Stellat'en Territories in May 2019.

Of course, *Morchella mycelia* and morel mushrooms existed in boreal forests prior to the European colonization of Turtle Island. However, because of careful fire management

by Indigenous Nations to limit dangerous fires near significant areas, the large, extreme fires that would have led to morel fruiting events were outside of regular hunting, trade, and settlement areas. This is consistent with findings from California, where Indigenous peoples use small-scale burning to support mushroom production at the sustenance level (Anderson & Lake, 2013), but not at the scale required for a viable commercial harvest. In other words, the areas managed, monitored, and used by Indigenous peoples were likely not producing the large fruiting events of morel mushrooms as experienced contemporarily and which support the transient commercial morel industry.

Table 4: Comparison of harvesters' and mycologists' ideal *Morchella* fruiting conditions with settler and Indigenous fire regimes.

Fire Regime Property	Fire Regimes under Indigenous management	Fire regimes under settler management	Conditions for masse <i>Morchella sp.</i> fruiting events
Intensity of Burn	Low-intensity fires	Low, medium and high intensity fires	Intense burns, with near-complete burn of duff layer (Greene et al. 2010); intermediate burns, with needle drops (MacFarlane et al. 2005; Wurtz et al. 2005)
Timing of Burn	Mostly early spring fires	Fires throughout the fire season; large burns in late summer/early autumn	Late summer and early fall fires

Frequency of Burn	Frequent (Burn cycles up to every 3 years)	Infrequent (burn cycles up to 100 years)	Infrequent
Size of Fire	Small fires	Large fires	Large fires (preferably over 500 ha.)
Forest Age	Varied stands of young plants	Well-established conifer stands	Well-established conifer stands

Morchella's life cycles also mirror and facilitate what have been described as "transient" settler ways of life and relating to land and place (Kimmerer, 2013). Unlike other mushrooms, which fruit year after year in the same location, allowing for long-term relationships between place, fungi, and harvesters (Barron, 2010; Fine, 2008; Tsing, 2015), fire morels only fruit *en masse* once. By the second year after wildfire, only one percent of the number of morels can be found compared to the first spring after burning (Greene et al., 2010). This means that, while local harvesters often do continue to harvest the few remaining mushrooms (Stanton, 2018), transient commercial morel pickers travel from site to site each year (Field Notes, May 2017, June 2019). Instead of developing relationships with specific lands and peoples, morel harvesters become skilled at identifying broad ecological characteristics to extract as much value as possible from the post-disaster landscape before moving on to other regions, camps, and forests. This produces a "fly-by-night" industry which often produces significant issues in terms of waste and environmental impacts. Further, the transient nature of morel ecologies and industries limits the opportunity for those who experienced the fire, namely Indigenous peoples (and settler locals), to incorporate morel harvesting with other wild food gathering, hunting, and fishing activities on their

Territories. However, despite the present-day disparities in post-fire morel opportunity, *Morchella* themselves prove to be yet another problem of nature, eluding attempts to subsume them both on- and off- the mushroom trail.

4.4. Failures to Subsume *Morchella*: Negotiating with Morels in the Forest and Laboratory

In this section, I return to the opportunistic ecology of *Morchella* to demonstrate how, despite these landscape-level attempts to subsume nature through fire suppression policies, non-human agency proves difficult to tame at every scale. The post-fire landscape appears to be full of potential for the extraction of morel commodities. However, I will demonstrate how this opportunity is contingent on further attempts to subsume unruly nature, including harvesters' attempts to find elusive morels along the mushroom trail and commercial mycologists' aims to cultivate uncooperative *Morchella* in the lab.

4.4.1. Negotiating with Elusive Morels in the Bush

Despite settler-colonial fire regimes producing conditions favourable for flushes of morel mushrooms, morels are known to be elusive. According to mycologists and harvesters alike, *Morchella* are strange fungi which appear to deny conventional understandings of both ecology and mushroom hunting. The biophysical characteristics of *Morchella* make it difficult to find morels and benefit from their post-fire opportunistic fruiting behaviours. In other words, while the failure of the timber industry and settler-state to formally subsume fire ecologies has allowed the commercial morel industry to flourish, morels' unreliable nature make *their* formal subsumption through extraction in the burnt forest an ongoing

challenge. Along the mushroom trail, *Morchella* are decidedly mysterious, difficult to understand, and resistant to this kind of taming.

Perhaps because of their complex and poorly understood ecology, morel mushrooms can be notoriously difficult to find, even in areas when the ecological conditions of an area should be “perfect” for morel growth. Fine (2008) discusses how mushroom harvesters attribute *character* to different species of mushrooms. Likewise, among participants in Fort McMurray and NSN Whut’ en Territories, morels were characterized as being “elusive”, strong-willed mushrooms that will “grow everywhere but where they should”. As part of their elusive character, morels are known for their disappearing (and re-appearing) acts, and the ways their discarded bodies appear to resort into ever-more mushrooms. When walking through the forest, morels often appear when you least expect them: every year, pickers discussed wandering dozens of kilometres through the burnt forest, only to give up, walk back to their vehicle, and find a patch of mushrooms mere meters away from where they had parked. Any harvester who has spent a day in the forest, staring in frustration at the barren forest floor, only to discover the pinecones they have been passing by have been morel mushroom, deeply understands this trick. Tracy and Pete, a middle-aged couple from Fort McMurray with whom I spent many hours surveying the burnt forest floor searching for mushrooms, described the difficulty to spot morels emerging from the soil:

Tracey: ...And basically, [we] just, stumbled over them. Hard to see, they’re very very hard to see. Camouflaged. They grow up with that the burn all over them, so it just about looks like dirt.

Pete: The black morels, they look almost like an acorn or a pinecone, right? Very similar shape, right? (Interview, June 2017).

Even when one is successful in finding a patch of morels, actually harvesting all of the mushrooms continues to be difficult. Because of their colour, texture, and resemblance to ash-coated pinecones, spotting all the morels in a patch can be a challenge (Figure 11). Harvesters often complain of having to comb through their favourite harvesting spots numerous times to spot all the morels, no matter how carefully they look.



Figure 11: A patch of eight difficult-to-spot morel mushrooms on NSN Whut'en Territories in June 2019.

Given the morel's elusive and difficult characteristics, in order to benefit from post-fire morel fruiting, harvesters told stories of learning to laugh at (or at least tolerate) morels' difficult nature, listening to the forest to find them, and willing them to fruit. For several pickers, learning to set aside their ego and some of their mycological knowledge and instead listen to the forest for signs of morels was key to these negotiations:

Every sensation around you. You can feel the trees, the mushrooms, they call you, right?... You can hear the little, “Hey I’m over here,” and you look, and you’ll find them. (Susan, Interview, June 2019)

Harvesters also discussed being at the mercy of the agency of *Morchella* fungi, particularly when it came to their fruiting locations. In Fort McMurray, for example, most morels found were in muskeg²¹ soil alongside Labrador tea (*Rhododendron groenlandicum*). These conditions were inconsistent with both morels found in most harvesting locations, such as on NSN Whut’en Territories, as well as with the mycological literature. Those who were harvesting morels to sell into the market in Fort McMurray and NSN Whut'en Territories expressed greater frustration at morels’ inconsistent, tricky fruiting behaviour than those harvesting for personal use or as a hobby. As William, a commercial harvester, put it,

They grow wherever they want. They have their own mind. They can grow on rocks. Anywhere you don’t think a morel should grow, you’ll find it. We were finding them in muskeg, where that’s just the stupidest spot for a morel to grow. (Interview, June 2018)

The activity of harvesting fire morels involves not just simple extraction, but instead understanding the agency of *Morchella* in its fruiting behaviour and negotiating with the fungi and forest in order to capture this post-disaster opportunity. Commercial harvesters have learned to predict where morel mushrooms will fruit following wildfires, using maps, mycological data, and embodied experience to choose their harvesting locations (Stanton, 2018). However, the irregular nature of both fire regimes and *Morchella* fruiting means that morel picking is an economically risky adventure: the industry is subject to large fluctuations in quantity, quality, and price of the mushrooms. Thus, while harvesters are in the field,

²¹ Muskeg is the term used to refer to bogland in Alaska and North America; it features acidic and, most relevant to morel ecology, incredibly saturated, wet soils with significant amounts of peat.

aiming to understand the biophysical nature of morels in order to extract them for personal consumption or the market, mycologists and commercial scientists are in the lab, attempting to tame morels for cultivation.

4.4.2. Attempts at Lab Cultivation and Opportunity for Wild Mushroom Harvesters

The international demand for morel mushrooms as a culinary delicacy, combined with *Morchella*'s irregular fruiting habits and, in the North American context, challenging fire-reliant ecology, has led to research exploring the possibility for commercial cultivation. The possibility of avoiding negotiating with morels in burnt forests, and instead producing a more consistent and less labour-intensive product in a cultivation setting, is enticing for many commercial scientists. For example, in a now-expired 1986 U.S. patent for the cultivation of *Morchella* (which did not produce any significant commercial output), Ower, Mills, and Malachowski (1986) describe the general desire of the high-end mushroom industry to transform morels from temperamental fungi to mushrooms which can be grown consistently, throughout the year, and in controlled conditions:

One would suppose that if these fungi grow freely without cultivation in the wild or natural state, cultivation methods would have been developed to maximize their production. This, however, has not been the case. There are reports of growing morels outdoors; however, no one has succeeded in cultivating morels like the common *Agaricus* species or other edible forms in environmentally controlled rooms for harvesting throughout the year... Fruiting of the morel occurs during select conditions; a situation recognized by mushroom hunters who have experienced "bad years" for morel gathering. It is a general object of the invention to provide a method for culturing morels in a manner suitable for commercial production of ascocarps throughout the year under controlled conditions. (p. 2)

Just as the settler-state's response to the threat of wildfires for the timber industry can be understood as a failed attempt to subsume fire ecologies, the desire to cultivate morels can be understood as a failure of the real subsumption of *Morchella* reproductive cycles.

Boyd, Prudham, and Schurman (2001) differentiate between nature-based industries which are *extractive*, involving the formal subsumption of nature, and those which are based upon *cultivation*, which involve the real subsumption of nature. While the authors discuss that both involve grappling with the “problem of nature”, namely, the agency and characteristics of biological species and specific geographies, and the limits these characteristics place on accumulation, extractive and cultivation-based industries treat nature differently. The transition from extractive wild morel harvesting to cultivated morel production would represent a transformation of the structure of the morel industry, but also of the nature of morels themselves.

As Prudham (2003) articulates, domestication or *taming* of the biophysical properties of plants, animals, and fungi into industrial commodity is a complex socio-technical process contingent on sociopolitical projects, geographies, and the specific capacities and characteristics of the cultivar in question. In agriculture, scholars have paid significant attention to the ways in which plant breeding and biotechnology have allowed for capital to more fully subsume the biophysical nature of plants in order to facilitate accumulation (Kloppenburg, 2005). The nature of forestry, however, has meant traditional strategies of “taming” plants in this way are more difficult and complex, as conditions are less controlled than in typical agricultural and horticultural situations, and, traditionally, a larger proportion of the products are what would be referred to as “wild crops” (Forest Research Task Force, 1967, as cited in Prudham, 2003). However, as Prudham (2003, 2012) and Palmer (2020) discuss, timber forestry in the North American context has increasingly shifted towards an industry of intense management while remaining distinct from agricultural-style cultivation due to the long lifecycle of timber plants.

Perhaps the trajectory from post-disaster extraction to cultivation is in the future for morel mushrooms. However, to date, morel reproductive cycles, like the disastrous fires which allow for their fruiting, have remained a rather difficult “problem of nature” to overcome. Understanding morels’ resistance to subsumption is made easier when we consider their strange fruiting cycles and elusive nature as a form of uncooperative labour. Conceptualizing plants (and, by extension, fungi) as “lively labourers” is a relatively new development in political ecology (Perkins, 2007; Ernwein, 2020). As Smith (2007) discusses, the concept of the real subsumption of nature differs from Marx’s subsumption of labour because the subsumption of labour necessarily involves the *cooperation* of workers. Without worker cooperation, such as coordination, not shirking responsibility, and communication, the real subsumption of labour is not possible. In other words, within commercial mycologists’ laboratories, despite their best efforts, scientists have failed to enroll the cooperative labour of *Morchella* in their commercial production.

Since Ower, Mills, and Malachowski (1986)’s attempts to commercially cultivate morels, there have been a few reports of limited success in the cultivation of *Morchella* species (Stamets, 2011; Zhao et al., 2009; Zhu, 2008). The usual strategy for cultivating morels involves extracting mycelia and sclerotia and submerging this in various substrates at controlled temperatures in order to encourage the morels to fruit (Ower et al., 1986; Pegler, 2003; Pilz et al., 2007; Stamets, 2011). However, morels’ cultivation has so-far been impossible at any commercial scale (Du et al., 2015). Morels are difficult to grow in a lab setting because they are not purely saprobic (decomposing) like most cultivated mushrooms, and thus refuse to be grown on substrates independent of their living, forest-based tree hosts. While some attempts to produce the mushrooms have been successful, fruiting is erratic and

lab-grown morels have yet to reach the size and quality expected in the commercial market (Du et al., 2015; He et al., 2018). In attempts to cultivate morel mushrooms, the lack of cooperation on the part of *Morchella* to accept fruiting in a substrate environment, independently of their forest relations, has prevented the real subsumption of nature in any meaningful way.

For the transient commercial pickers in Fort McMurray and NSN Whut'en Territories, this failure is welcome news. If widely successful, cultivation would likely displace a large portion of the North American market for wild morel mushrooms. Of course, morels represent opportunity beyond their value in a capitalist market (Barron, 2015, 2018; Stanton, 2018) for many harvesters, particularly those who experienced disaster (see Chapter 5). However, the majority of those benefitting from morel mushroom fruiting events are doing so in order to participate in the international commercial market. To many long-term, transient commercial harvesters, the advent of widespread cultivation, which they believe is immanent, is perceived as a financial and existential threat. Fresh morels are mostly shipped within North America on refrigerated trucks, with a very small portion air-freighted to Europe (Field Notes, June 2019); as such, cultivated morels would not likely make a significant impact on fresh mushroom markets beyond the regional scale. However, most morels are sold as a dried product, thus making them suitable for long-term storage and slower shipping methods. It is within this market for dried morels where *both* regional and international attempts to cultivate morels are perceived as a threat to the wild morel industry:

I think because of what China's doing with farming morels right now, um, it's going, the reason the prices are so low this year is because China is producing them. And you can't compete. I mean, they're, they're shipping to your door, right now, and in the U.S., they can pick them up for \$60 a pound, and they're the quality, the quality

of product is awesome. Um. This is where it's going. I think the industry is on a crash, and it's a permanent crash. (Interview, Max, June 2019)

While these are increasing worries among commercial harvesters, the difficulty in the cultivation of morels to-date has allowed for the wild industry to continue, particularly for fire morels in Western Canada. Thus, because *Morchella* are uncooperative fungal labourers in the laboratory, and their mycorrhizal relationship with boreal trees has not been “broken” (Leonard & Evans, 1997) through cultivation technologies, their fiery opportunity remains. As Smith (2007) describes, a theoretical approach which involves the production of nature “assumes no such comprehensive domination [of nature and] leave[s] radically open the ways in which social production can create accidental, unintended and even counter-effective results vis-à-vis nature” (p. 24). In Western Canada, the accidental effects of the incomplete domination of fire ecologies through settler-colonial fire suppression policies and of *Morchella* fungi through lab cultivation makes possible the ongoing production of post-disaster opportunity for transient commercial harvesters.

4.4.3. A New Problem of “Nature”: Climate Change and Morel Opportunity in Flux

Although the commercial mushroom harvest persists despite the looming possibility of commercial cultivation, post-fire morel mushroom harvesting like that which occurred in Fort McMurray and on NSN Whut'en Territories will not exist in its current state for perpetuity. Instead, morel harvesters find themselves negotiating with another “problem of nature” (however human-driven): anthropogenic climate change.

Like many plant species, ranges of fungi are shifting in response to a warming climate. While a poor baseline understanding of many fungal geographies limits the ability to predict changes from climate change, research has suggested that ecto-mycorrhizal fungi

(such as *Morchella* and most other popular wild edible mushrooms) show some resilience to warming temperatures (Mucha et al., 2018; Kranabetter, 2014). However, rapid changes in tree distribution and forest productivity would likely have a negative impact on these fungi (Kranabetter, 2014), and lead to some changes in the composition of fungal communities (Mucha et al., 2018).

Anthropogenic climate change is altering the fire regimes of Western Canada, where forest fires are increasing in frequency, intensity and size (Flannigan et al., 2019, 2013; Wotton et al., 2010; deGroot et al., 2013; Kirchmeyer-Young et al., 2016). The risk of large mega-fires in coniferous forests, such as those experienced in Fort McMurray, is increasing with anthropogenic warming due to drier, warmer spring seasons, and increased lightning storms which ignite fires. While mycological data are limited, my participants suggest that the ecologies of fire-adapted *Morchella* appear to be in flux as a result of anthropogenic warming. Fires are becoming more frequent, larger, and more intense, but the fire season length is also changing: fires are burning earlier in the season, with spring fires becoming increasingly common (Flannigan et al., 2009). Despite that morel foragers seek out large fires every year, nearly all experienced commercial mushroom harvesters considered changing fire regimes to be a problem for the industry. This issue is partly because these harvesters are part of a larger “circuit” of mushroom picking, which includes harvesting chanterelle mushrooms, pine mushrooms, and boletes, all which fruit in the same places year-on-year and are likely to experience changes in range with climate change.

However, with respect to morels, the problem of the shifting fire season is twofold. First, early fires pose a significant risk to morel harvesters in the field as these fires can light unexpectedly and spread rapidly, as occurred in the 2019 harvesting season in NSN Whut’en

Territories (Field Notes, May 2019). More importantly, however, is that spring fires, regardless of size, produce fewer morel mushrooms than autumn fires, as was the case following the Horse River fire. For commercial morel pickers, fire regimes with climate change do not represent ever-more fungal opportunity, but rather a senseless loss of their early-season income opportunities. For hobby pickers, shifting fire regimes promise more destructive fire events, without the fungal “silver lining” offered by morel mushrooms (Field Notes, June 2018).

4.5. Conclusion

This chapter has considered how more-than-human ecologies interact with ongoing socio-political projects and structures to answer questions about who produces, and benefits from, post-disaster opportunity. Just as wildfire disasters produce differentiated impacts between settler and Indigenous communities (Asfaw et al., 2020), large flushes of morel mushrooms do not present equal post-disaster opportunity to all social groups. As such, I have focused primarily on how large-scale morel fruiting events, which disproportionately benefit transient settler harvesters over local Indigenous peoples, are facilitated by more-than-human fire ecologies and the long history of failed settler-colonial and capitalist attempts to tame them.

Throughout this chapter, I have worked with Boyd, Prudham, and Schurman (2001)’s concept of the subsumption of nature. I have highlighted the difficulties of taming more-than-human “problems of nature”, both at species-level through an exploration of morel harvesting and cultivation, as well as at a broader, landscape level, through understanding settler-colonial fire management regimes. This has emphasized how capitalist processes of subsumption are linked with settler-colonialism, arguing that questions around forest

management regimes, subsumption of nature, and more-than-human labour (see Palmer, 2020) are richer when they interrogate the displacement of Indigenous ecological management. I have provided insight into how processes of subsumption work at multiple scales and temporalities, working together to produce contingent forms of post-disaster opportunity.

More significantly, by understanding morel flushes and post disaster opportunity as an imperfect, yet reciprocal relationship between socio-political structures and more-than-human agency, I have aimed to bridge the gap left from disaster research in addressing informal, rhizomatic, “patchy” (Tsing et al., 2019) change. That is, morel opportunity is patchy, with some fires, forests, and spots offering more opportunity than others, because this opportunity is contingent on the imperfect relationship between fire ecologies and the ongoing attempts to subsume them. Patches of morel mushrooms emerge among the burnt, ashy, between-spaces left untamed by settler-colonial and capitalist projects. While the commercial mushroom industry is the primary beneficiary of the post-wildfire morel harvest today, this may not be the case in the future. A shift in attempts to tame nature—such as the successful cultivation of morels or a change in *Morchella* fruiting patterns due to climate change—has the potential to shift the patches of morel opportunity in turn. Whether these changes will mean post-wildfire morel opportunity will be differently distributed between Indigenous peoples and settler harvesters is yet to be determined. However, with increasing leadership by First Nations through governing the morel harvest (see Chapter 7) we can see a hint of these futures.

This chapter has demonstrated that through the fruiting of their edible bodies, morel mushrooms act to translate the opportunities produced in post-fire boreal forest ecology to

one which humans are able to capture (with some negotiation). However, the production of post-fire morel opportunity is not apolitical, nor the result of passively received disaster impacts. Instead, just as the impacts of wildfire disasters, settler-colonialism, and capitalism are differentiated in Western Canada, so are the opportunities which are produced at the intersection of these structures and histories. While the impacts of wildfire disasters disproportionately impact Indigenous peoples, morel fruiting events primarily accrue to transient commercial harvesters, the majority of which are settlers. Of course, there are others who harvest morel mushrooms: local peoples, both Indigenous and settler, who have recently experienced wildfire disaster. Shifting from a structural critique to one focused on affect, the next chapter will discuss how harvesting groups are differentiated, through their embodied experiences with and memories of wildfire, in their capacities to *capture* the opportunity presented by flushes of morel mushrooms. These differences, and the ways in which the opportunity of morel mushroom fruiting events is captured for different ends, is discussed in the following chapter.

5. Capturing Opportunity: Wildfire Memories and Bodily Capacities on the Mushroom Trail

5.1. Introduction

When morel mushroom harvesters wander into burnt Western Canadian forests, the landscape of burnt trees, charred animal remains, and ashy soil evokes a wide range of memories, emotional responses, and affects. For some harvesters, walking into a burn site is a stark and triggering reminder of their recent traumatic experiences with wildfire the year before. For others, the changed forest landscape near their community evokes sadness and feelings of loss. For others still, the burnt forest may not feel like a loss of a familiar or significant place but is “spooky” and “strange”. And, finally, for some, burn sites evoke no more significant emotions than those of a worker who has entered their long-time workplace on a Monday morning. These experiences of the post-disaster landscape are functions of harvesters’ past encounters, memories, and relationships with wildfire, disaster, and place. Not only are their understandings of what morel mushrooms represent contingent upon their experiences of disaster, but their abilities to harvest morel mushrooms and their relations with other harvesters in the forest are, too.

Many researchers interested in resilience understand the relationship between disaster experience and engagement with post-disaster opportunity through concepts such as

“temporal situatedness” (DeVries, 2011, p. 154), “temporal vulnerability” (DeVries, 2017), “social memory” (Madsen & O’Mullan, 2013; Tidball et al., 2010) or “sustainable memory” (McEwan et al., 2017). These authors argue that as time increases between the experience of disaster, individuals and communities are likely to forget the rupture and are more apt to underestimate disaster risks (Berkes, 2007; Madsen & O’Mullan, 2013). These concepts generally do not describe how those who were *not* present before and during disaster engage with post-disaster opportunity, however. This understanding, then, is incomplete: as Klein (2008) and others (Perez & Canella, 2011; Sandoval et al., 2020) demonstrate, outside actors, including insurance firms, developers, or extractive industries, often have a disproportionate impact on post-disaster politics and affective life (Grove, 2014). This chapter questions both approaches described above by considering the capacities of local and outside actors simultaneously and examining how manifold claims to opportunity interact on the ground.

Literature which engages with “resilience” or “disaster capitalism” often does not consider how more mediated experiences of disaster—say, through experiencing wildfire smoke but not the flames—also generate capacities to enact post-disaster change. In a helpful entry point to this kind of analysis, Blanche Verlie (2019) has explored how encounters with climactic-affective atmospheres, such as those produced by Australian bush fires, can form rapidly spreading affects that trigger “fiery” moods within those who experience them. Her analysis examines how material encounters with fire, smoke, and ash are emotionally and affectively charged. In this chapter, I question how the materiality of harvesters’ *memories* of fire are related to affective atmospheres and capacities within the burnt forest.

Through various memories of wildfire, social groups are differentiated in their capacities to capture opportunity in the post wildfire forests of Western Canada. I refer to

harvesters' capacities to literally pick morels²², as well as their *affective* capacities, describing their abilities to affect others' capacities to act (Massumi, 2002) in the bush. This chapter also examines how bodily capacities can change over time with embodied expertise (Peltola & Tuomisaari, 2015), memories (Curti, 2008), or mediated experiences (Hayes-Conroy, 2010). I also draw upon Giorgio Hadi Curti (2008)'s argument that "memory, emotion and affect are continuously interactive and inter-relational forces of the human body that cannot be separated or adequately understood apart from one another"²³ (p. 107) to explicitly incorporate the power of memories in the production of affective atmospheres and in one's capacities to affect others. As such, this chapter addresses the question of how memories of disaster—differentiated spatially, temporally, and materially—affect harvesters' abilities to define and capture the post-disaster opportunity of morel mushroom harvesting.

I structure this chapter through three vignettes exploring the experiences of harvesters in the Western Canadian morel harvest: local harvesters who have recently encountered wildfires in their communities; transient commercial harvesters, who have not experienced wildfire recently, or whose encounters with wildfire have been limited to smoke; and Indigenous local peoples, on whose Territories the morel harvest occurs and whose experiences with wildfire disaster are mediated by the settler-colonial context of Canada. These social groups are fluid and do not necessarily align with essentialized identities: not

²² Of course, the experience and skill of the harvester affects their ability to pick morel mushrooms. For those who had picked morels for several years and those with extensive mycological knowledge, finding and picking morels was much easier, and they were able to harvest a significantly larger quantity than those who were searching for morels for the first time (Stanton, 2018). This chapter, however, focuses on the factors which influenced harvesters' differentiated capacities to harvest morel mushrooms *beyond* skill.

²³ This is, of course, in the context of ongoing debates regarding the relationships between memory, emotions, and affect in human geography (Bondi, 2005; Curti et al., 2011; Pile, 2010).

all local pickers I describe are hobby pickers, and not all transient commercial pickers are settlers, for example. Instead, the groups I identify are differentiated in their encounters with and memories of wildfire, and, in turn, their capacities to define and capture the opportunity of post-fire morels. These vignettes demonstrate how the potency of material encounters with wildfire leads to differences in harvesters' abilities to harvest morel mushrooms, influence the practices and ethical standards of the morel harvest, and capture post-disaster opportunity.

5.2. Fire in Fort McMurray: Fiery Memories and Restricted Morel Capacities

As Anderson (2014) describes, “[s]omething of the past persists in an encounter, any encounter contains reference to past encounters, and encounters are made through accumulated relations, dispositions and habits” (p. 82). This section describes how the recent experience of wildfire disaster, through the re-activation of traumatic memories when harvesters entered burnt forest, limited the capacities of local harvesters to pick morels in Fort McMurray. I begin with Fort McMurrayites' encounters with wildfire, tracing how their experiences with what was referred to as “The Beast” led to the development of traumatic memories for local residents.

Traumatic memories of disaster events have been understood in affective terms using various concepts. For example, memories have been described as “vital” (Brown & Reavey, 2015), in that they fundamentally change self-perception and require “making sense”; as “sticky”, to describe how they continue to affect the body, long after the event (Adams-Hutcheson, 2016); and as spatially situated (but unsettled) (Walker, 2010). Here, I argue wildfire disaster memories are also *fiery*, by which I mean, they are difficult to control as they burn themselves into the everyday infrastructures and life patterns of individuals and

communities, and, like pyrocumulonimbus clouds emerging out of the largest blazes in Western Canada (Fromm et al., 2010), produce their own (affective) atmospheres and storms.

Nature-based activities, such as spending time in forests or gardening, are commonly adopted as a means of recovering from post-traumatic stress symptoms, particularly within veteran communities (Dustin et al., 2011; Krasny, 2013; Poulsen et al., 2016). Aligned with these approaches, for Fort McMurray harvesters, harvesting morels represented an opportunity to collectively attempt to *put out the flames* of these fiery memories and affective atmospheres through storytelling and repeated exposures to the burnt forest. However, morel mushroom harvesting is distinct from nature-based recovery through gardening in that mushroom pickers are returning to the source of their difficult memories. As such, I will outline how, because of their past encounters with and fiery memories of wildfire, these harvesters were limited in their abilities to pick morels, collectively make sense of the disaster, and, finally, to influence the activities of commercial harvesters who entered the forests near their homes.

5.2.1. Encountering “The Beast”

Upon entering the forest with Fort McMurrayite local harvesters who, the spring prior, had been evacuated, displaced, and often also lost their homes during the Fort McMurray wildfire, it was clear that morel harvesting felt very different to those who had experienced the fire than the activity did for me. During the wildfire in May 2016, I was in Edmonton, where most evacuees travelled to find temporary shelter and access to emergency government supports. My experience of volunteering to distribute resources to displaced families and experiencing wildfire smoke envelope the city meant that I felt sadness, shock, and awe when I walked into the burnt forest to find morels. However, the mediated nature of

my experience with the fire meant that looking for morels was mainly an exciting opportunity to find a rare dinner ingredient.

To local harvesters, however, their wildfire encounter in spring 2016 was with “The Beast”. The Horse River wildfire received this name in the early days of the burn from Darby Allen, the Fire Chief for the Regional Municipality of Wood Buffalo. He named the fire “The Beast” not only because of the fire’s size, but due to the high winds and fire’s shifting behaviour (Gillis, 2016). Of course, as Darby later explained, the choice to describe the Fort McMurray fire as “The Beast” was meant to produce an atmosphere of vigilance and emergency (Anderson & Adey, 2011; McCormack, 2015) among Fort McMurray residents, as outlined in a media interview several months after the fire:

[Darby] resorted to a rhetorical flourish he hoped would keep 90,000 residents on their toes. ‘There’s a very fine line between alerting people and panicking them,’ the 59-year-old now says. ‘But I think people who knew me understood that I wasn’t feeling overly good. (Gillis, 2016)

For residents of Fort McMurray, encountering The Beast, as well as the atmospheres associated with disaster and fiery evacuation, produced traumatic memories and post-traumatic stress symptoms (Agyapong et al., 2021; Belleville et al., 2021). For many residents, their encounter with The Beast was “intense”, fearful, and life-altering. For example, Tracey, a middle-aged woman who was amongst those evacuated from Fort McMurray describes her experience, one year after the event, with vivid images, sensations, and atmospheres:

I went outside, and the heat was so intense, and I didn’t even, I knew more about the fire, and I didn’t know it was that, that close to town. And I’m at the mall now, in the parking lot. And the heat was unbearable, I could see, like flames coming at us, but I think it was the sky and stuff... Going home that day, it was very nerve wracking, because I’m seeing the fire on the banks, on the bankside, and the closer I got to home, the more I saw that the fire was everywhere. And by the time I got to my house, yeah,

it was really scary. I had no gas, no money, my husband was out of town at the time, and we didn't know if the gas stations were closed, gridlocked traffic everywhere, heard people were taking guns out on people, not letting them fill up their tanks. So, we ended up siphoning gas from our neighbour, and good thing they had a lot of extra gas because of their ATVs and whatnot. So, we got gas that way, and I have to say, just before I left my house, we had those- what are they called, the big bombers?... The large water bombers. I looked up and there's a big shadow over me, very intimidating, and they were dropping fire retardant on housing right across the street. (Interview, June 2017)

For Tracey and other Fort McMurrayite harvesters, these intense sensations, images, and atmospheres of terror “stuck” (Adams-Hutcheson, 2016) to them, long after the event, and would stick, or so it seemed at the time, “forever”. As Lenny put it,

[I've got a] broken brain, I don't know. Just like a mental health thing. Like will PTSD go away? Is it there forever? How do you control it? You take drugs, are you going to be on those forever? (Interview, May 2017)

A year later, the memories of their wildfire experience had burned into their everyday lives: whether this was because of the material consequences of dealing with destroyed or fire-damaged homes, or due to an inability to return to work because of anxiety, flashbacks and stress. Fiery memories were also central to the morel harvesting experience for these pickers as they re-entered the forest and were often overwhelming to the pickers that I went harvesting with (Figure 12). In fact, for many local harvesters, post-wildfire morels were the first mushroom of any kind they had ever searched for. They were drawn into the forest to hunt for morels by their friends and acquaintances as a means of collective emotional recovery, and by the possibility of finding new, and different, relationships to the forest which had been altered by fire (Stanton, 2018).



Figure 12: A harvester who experienced PTSD following the Horse River wildfire rests to “calm down” while looking for morel mushrooms in May 2018.

However, despite these individualized narratives and the often-isolating nature of trauma experiences (Herman, 2015), fiery memories are not limited to the individual subject nor the emotional plane. Instead, the constellation of bodies—the forest, the ashes, and others—is what “gives the memory its affective charge. Each time the incident is recalled, the survivor is reconnected to that affective atmosphere, despite the physical and temporal distance” (Brown & Reavey, 2014, p. 333). While harvesters’ encounters with wildfire produced individual ruptures which required so called “sense-making”, harvesters’ encounters were also with the collective atmospheres of alertness, loss, and chaos, all of which were re-activated by their fiery memories once they returned to the forest. In turn, these harvesters’ sense-making activities, as we will see, were also done through relational experiences and through affecting, and being affected-by, other bodies in the forest: fungal, human, and otherwise. How they were able to navigate and capture the opportunity for sense-making, however, was related to their experiences the year before.

5.2.2. Putting out Fires and Negative Affective Capacities

Most local morel harvesters from Fort McMurray immediately felt the re-activation of their encounter with The Beast upon entering the burnt forests near their homes. Some experienced this intensely as post-traumatic stress symptoms, while others felt relatively muted emotions of deep sadness and loss. When out looking for mushrooms alongside these harvesters, I became more aware of the truly traumatic nature of their encounter with “The Beast”. For many harvesters who had fiery memories of the Fort McMurray wildfire, their choices of locations to pick morels were not based on their knowledge of morel ecology and fruiting. Instead, these harvesters chose spots based on how they felt they could manage the *feeling* of these places: for some, such as Lenny, entering the forest at all was, immediately, overwhelming with reminders of the fire:

I live up in Gregoire and right behind our place, well, there’s forest all around us, right, so we went out there, just to have a look and see what the temperature of the soil was, you know, you can see if it was warm enough for the morels, we just went for a little walk, and I didn’t realize how close the fire actually got to my house. And like how bad it was in there. So just kinda... kind of like took me back, freaked me out. My anxiety got a little high, yeah. Just like sat down and kind of looked around and like awe-struck. But then I don’t know really, I was like okay, let’s just go walk around. Just weird. What’s the word? Surreal. It was surreal. Yeah. (Lenny, Interview, June 2017)

When I went out to pick morels with local harvesters after hearing their evacuation stories, I began to understand the intense and often contemplative atmosphere which surrounded our foray. For example, when I harvested with Lenny and experienced the alternating silence and nervous chatter, that re-entering the forest was intense and stressful, but searching for, and eventually finding morels, a small triumph over a traumatic and difficult set of memories. These kinds of memories and feelings of the wildfire affected the ways harvesters like Lenny navigated the physical space of the forest during the morel

season. Often, harvesters *avoided* spots which were too affectively charged. Because the affective atmosphere of burnt trees, animal remains, and charred soil caused such a strong re-activation of their fiery memories, they could not enter without re-experiencing the feelings of emergency the year before. The intensity of their memories often affected *my* mood in the forest, as well, where I would feel anxious picking with locals despite having not encountered The Beast myself. Because of their fraught relationships between certain forest spaces and the re-activation of affective atmospheres, harvesters often picked in pairs and groups, in order to collectively remember the wildfire, but also to “cut the tension” (Field Notes, May 2017) of being in the forest—and amongst their fiery memories of disaster—alone.

Most Fort McMurray pickers did so collaboratively, using social media groups and the local mycological society to share information about picking locations and meet new people through hobby foraging (Stanton, 2018). These activities not only were crucial for many harvesters’ success in finding morel mushrooms, but also helped them put out the affective fires of the post-disaster landscape and make collective sense or meaning from the experience of disaster (Brown & Reavey, 2015; Chamlee-Wright & Storr, 2011). As at some points, harvesters chose locations which reminded them of the blaze because it allowed them to tell stories of the fire to their harvesting companions. For example, Lenny took Kyle and me to a picking location that, despite not hosting any morels, offered a perfect view of the spot on the riverbank where he had considered driving his vehicle into, his family onboard, to escape the flames during evacuation (Field Notes, June 2017). This sort of foray happened often during my time in Fort McMurray. I began to expect to be taken to a spot that was emotionally significant and affectively charged to local pickers, where they could try to share

the fiery intensity of their encounter with the Beast in hopes of making sense of their memories and the remaining intensity of their feelings when faced with the burnt forest.

However, the presence of commercial pickers in the area limited this collaborative activity. Some locals, such as Roger, while recognizing the need for commercial pickers to earn an income, did not believe outsiders should harvest local mushrooms, and purposefully offered them misinformation about the area's landscape:

You know, [they're] jackasses, I think, that come through the community. You know, they would text me quite a bit, about what is a good place, and what's not a good place. You know, if you're just going to roll through the community, you're not going to leave any for us, then I'm not going to give you good information... Commercial pickers I don't mind. You know, there's a commodity worth harvesting. But in my own back yard, after what we've been through, I feel like they're our mushrooms. (Interview, June 2017)

Suspicion of other harvesters due to the presence of commercial pickers was common among locals. Pete, another Fort McMurrayite who was very forthcoming about his favourite picking locations and happily invited me to harvest with him and his wife, was nevertheless suspicious about other drivers parked by his patches:

A gentleman was sitting in a, it was an out-of-province pickup truck with BC license plates on it, and he just looked like a bush person, right, but he also had an iPad out, so it just led me to believe that he was ... In Fort McMurray, you see a lot of out-of-province license plates, so, I'm making the assumption, right, but I've never seen anyone else parking at a similar location, right? They guy's that park, that you saw today, the bikers, they all park at a different end. This guy was parked specifically where we were parked, right? So, I assuming that he's looking or was looking. (Interview, June 2017)

The suspicions about other harvesters meant that locals, over the course of the 2017 and 2018 harvesting seasons, shared progressively less and less information with other would-be pickers. This limited harvesters' abilities not only to be successful in their morel harvest, but also in building new relationships which were, according to harvesters like Charlotte, "really good to help get over [the fire]" (Field Notes, May 2018).

Of course, the extent of wildfire impacts experienced by would-be morel harvesters affected their engagements with post-disaster opportunity. This vignette has focused on the experiences of harvesters who encountered the Horse River fire. However, both “The Beast” and the Shovel Lake wildfire on NSN Whut’en Territories led to the evacuation of residents, individual and community stress, and property damage. Despite the devastating impacts of the Shovel Lake fire for residents on NSN Whut’en, the 2016 Fort McMurray wildfire was significantly larger and more disastrous for affected communities. As such, while harvesters from NSN Whut’en considered the wildfire a disaster, they did not have the same fiery memories as those from Fort McMurray. This meant that, while locals from NSN Whut’en understood morels as an opportunity to individually and collectively recover from the wildfire, they did not experience the same limitations to their capacities to harvest morels. Because they did not associate parts of the forest with deeply uncomfortable atmospheres, these locals were more able to choose harvesting locations based on the likelihood of morel fruiting. As such, these harvesters were more successful in their searches for morel mushrooms, some going so far as to participate in the commercial harvest, albeit with less success than transient pickers.

5.3. Where There’s Smoke, There’s Fungi: Non-Encounters with Fire and Broadened Opportunities

The recent encounter with wildfire disaster in Fort McMurray and NSN Whut’en Territories produced fiery memories for local harvesters, which led them into the burnt forest to collectively make sense of their experiences and attempt to extinguish these affective flames. For non-local harvesters, however, entering the Fort McMurray and NSN Whut’en forests following wildfire was a different experience entirely. Regardless of the recorded

impacts of both the Fort McMurray and Shovel Lake fires—the size of the blaze, the number of residents evacuated, the property loss—their status as disastrous was not a given among harvesters who had not personally experienced these events. Instead, for those who had not experienced these particular fires, their conceptualization of the events was determined based on their own, often more dissipated, memories of wildfires. These views of wildfire events as non-disasters were common among non-local, transient commercial harvesters, even among those who had been subject to evacuations due to wildfire at some point in their lifetimes.

In this section, I discuss *smokey* memories and their influence on harvesters' affective capacities. Smokey memories not only refer to many non-local harvesters' experiences of wildfire through smoke instead of fire, but also how fire memories, once overwhelming in the atmosphere, dissipate through the repeated opening, and capturing, of the post-wildfire “window” of opportunity. As Jones (2005) discusses, memories are not “retrieval[s] from the past” (p. 106), but instead are created and re-created throughout time. Because they did not experience wildfire the year before the flush of morel mushrooms, harvesters from outside the burn area felt and behaved differently on the morel trail. Unlike local harvesters who considered the recent wildfires as disasters, transient harvesters often conceptualized them as “natural processes”, without the fraught feelings and atmospheres associated with disaster. I argue that this process was the result of their smokey memories—that is, memories of wildfire which were more ephemeral and dissipate faster over time than when compared to local harvesters' fiery memories. This translated into enhanced capacities for transient pickers to harvest morels and affect others in the forest, particularly with respect to the ethics of the hunt.

5.3.1. Smokey Memories and the Re-Naturalisation of Wildfire Disaster

Most transient commercial harvesters, including myself, do not have to grapple with or “make sense” of memories and re-activated affects from recent direct experiences with wildfire. Some harvesters from areas without regular burns had never experienced any impacts from wildfires, such as those coming from the province of Québec. For harvesters who have never experienced wildfire, fire encounters occur at a distance from the disaster event through images of fires in news stories of burning trees and smoke-filled skies. These experiences function similarly to William Connolly’s (2017) reading of Whitehead’s notion of affective scars, in that they remind the body of the potential that did not come to fruition (which is, for those who live in fire-prone provinces such as Alberta and British Columbia, to experience the disaster directly).

For many harvesters from British Columbia, Alberta, and the Northwest Territories, our experiences with wildfire were more ephemeral: we remember the darkened, orange skies, the raining ash, and the chest-tightening experiences of the smoke from wildfires blanketing western North America every fire season. Whenever I enter the burnt forest and become covered in soot from wandering amongst the burnt trees, I am reminded of the thick smell and apocalyptic glow when the winds blow smoke over Edmonton. Particularly in the first year I harvested morels, could not help but feel a pang of anxiety at the thought of a more near encounter with wildfire. This sort of embodied wariness of wildfire smoke is common. As one transient commercial harvester, who regularly hitchhikes between British Columbia, Alberta, the Yukon, and Northwest Territories recalled:

[I’ve not had] an evacuation, but I’ve experienced smoke, especially in the last few years, I was working in Canmore, Alberta, on a resort, I was looking after fifty chalets, and it got horrendous. But that smoke was coming from Washington State...

It's a really fine smoke. It's insidious, it gets really deep into your lungs, it's really small particulate matter. It's not good for anybody, especially young children or older people. But it's not good for anybody. (Interview, Doug, June 2019)

Other commercial harvesters *had* experienced wildfires before, having been evacuated from their homes in previous fire seasons across British Columbia and Alberta. For example, Kent, a mushroom buyer set up in NSN Whut'en Territories, described his experiences with B.C. wildfires over a decade earlier:

[In] 2003, remember those big Kelowna fires? We were in Nakusp, so we had to be evacuated, we had to evacuate the whole business, everything. It was quite amazing... Um, I drove down the road, every time there [was] a bit of anxiety, because you drive down the road, it was like 27 kilometers away, and every day it was a little bit, and every day they would say, oh it's going to stop at such and such creek and I'd look at the creek and think, the creek's disappeared. It's like, no. So, it gets closer and closer. And I was just preparing when we'd have to move. And then the wind changed, and they also napalmed the mountain? And it just, the whole entire mountain, it's extremely steep, it's probably a kilometer of fire from the lake to the top. And I came down and I could hear this jet engine, and I thought what is that, eh? And I went around and was like holy cow, this is what the old people talk about, the sound, right? And so, we got a bunch of people from town, we got 23 people and 13 trucks and trailers, and we moved the whole business, uh, into a school that they had just, the elementary school, they had just closed it down, so they let us set up in there. And uh, it was a day and a half we were up and running in the gym and in the classrooms. And we were there for two weeks, and the fire went out. And it took us quite a bit longer to get back because there wasn't quite as much adrenalin. (Interview, June 2019)

These memories of smoke and wildfire evacuation involved chaos and destruction, just as those from Fort McMurray. However, by the time these non-local harvesters reached Fort McMurray and NSN Whut'en Territories, these memories had become *like* smoke. Once, they chokingly filled the atmosphere and overwhelmed the body, but, just as the orange haze and smokey skies lift when the wind shifts, the memories dissipated over time in their potency, and, ultimately, in their influence over harvesters' experiences on the morel trail. Thus, these harvesters' memories of wildfire, instead of being imbued with fiery affective atmospheres and immediate bodily experiences as explained by Lenny, were largely visual

and logistical. In other words, as time passed, winds had shifted, the smoke cleared, and these pickers had “made sense” of their memories.

Local harvesters’ fiery memories were like The Beast itself: immediately distressing and acting to cut off their capacities to harvest a year later. Smokey memories refer to how, despite past encounters affecting present and future encounters, they do so with less potency as embodied memories fade as subjects are exposed to particular affective atmospheres—like the burnt forest through morel harvesting—repeatedly. This was my experience, too: every year, while entering the burnt forest reminded me of orange skies and uncomfortable, thick air, I felt less of a pang of anxiety than the year before. By the time I arrived on NSN Whut’en Territories in 2019, it had become a quiver: I had found a new way to experience the atmosphere associated with the burnt forest. As Brown and Reavey (2015) outline,

Affect is non-deterministic. The survivor has had a wide range of emotional experiences around this recollection. This suggests that rationalising one’s emotional responses is unlikely to be sufficient to manage this memory—what needs to be done is to explore ways of feeling a path through the atmosphere differently—to discover new possibilities in what that atmosphere can offer. (p. 333)

Repeatedly returning to the burnt forest to harvest morel mushrooms, it seems, offers a means for harvesters to discover the different possibilities of the affective atmospheres of the burnt forest, which, in turn, affects their capacities to navigate and affect others in the space. As Kent succinctly described his relationship with being in a burn, 16 years after his evacuation experience:

It’s all good. I’m a hunter as well, so... It generates so much food for human life... my view of it—we eat nothing but wild meat, basically that [wildfire is] a new generation of food. (Interview, June 2019).

Because of their smokey memories, it was easier for commercial harvesters to describe wildfire events as “natural” boreal forest processes than those who had directly

experienced the fires. For many transient commercial harvesters, the Fort McMurray and Shovel Lake wildfires were not considered disasters. Instead, they referred to wildfires as natural events which should be expected by those who live in the wildland-urban interface. This opinion about disasters was so prevalent among transient commercial harvesters, that, during my fieldwork in NSN Whut'en Territories in 2019, I added a direct question on the topic to my interview guide, asking harvesters: "Do you think this fire was a disaster?". While local harvesters invariably answered "yes" to this question, transient commercial harvesters had more complex answers. For example, Max, a mushroom buyer from Québec who had only experienced wildfires in British Columbia from a distance during harvesting seasons, viewed fires not as disasters, but as an unavoidable consequence of boreal ecology and climate change:

Why they're not disasters? Well, it's just the region. They're not the death of the forest, they're the rebirth of the forest. You can look at it in two different manners, right? I look at it as the exciting part of the regrowth. I don't look at it, I mean, our fires have burned in this country forever. This is not new. This is something, I mean, it's getting out of control because global warming you're getting a two-degree temperature difference, of course you're going to have more fires, it's just where it's at. Um, and controlling them is almost next to impossible. You can't really do anything about it. You know, I don't really look at the devastation. Unfortunately, some communities have been devastated and that's unfortunate, you know? And our hearts go out to all of those people, but the reality is that our forest needs to rejuvenate. (Interview, Max, June 2019)

These harvesters were often able to re-naturalize wildfire disasters into natural fire events, despite ecological evidence to the contrary and the impacts on local communities. While these harvesters did not explicitly aim to discount locals' experiences of traumatic fire encounters, the re-naturalization of wildfires meant that instead of treating the burnt forest as a place of disaster, they treated it as a workplace—and local harvesters as competitors in a market.

5.3.2. Dissipated Memories of Disaster and the Burnt Forest as Workplace

If some transient commercial harvesters had direct experiences of chaotic wildfires and were able to navigate the burnt forest without trouble, what, beyond time, helps to transform their fiery memories into rapidly dissipating, smokey ones? For many commercial harvesters, it is the repeated opening of the post-disaster window of opportunity which “airs out” these memories and affective atmospheres. After repeatedly entering burnt forests looking for mushrooms, season after season and burn site after burn site, walking into the burnt landscape becomes much like walking into any workplace. For harvesters who perform various forms of informal forest work in addition to morel harvesting, the burnt forest is an industrial space, affectively similar to a tree plantation or a day in an unburnt forest hunting for other mushrooms such as pine or chanterelles (Field Notes, June 2019).

However, commercial harvesters’ feelings of being at a workplace when entering the burnt forest are not pre-determined, nor fixed through time. At the beginning of the morel season on NSN Whut’en Territories, I spoke to several first-time commercial morel pickers about the feelings of walking into the burnt bush. In May, these harvesters, along with my field assistant, Claire, described the feeling as “sad” and “spooky”. By the end of the picking season in late June, they told me they had “gotten over it”. By then, these harvesters enjoyed the relative ease of wandering through a burnt forest compared to one dense with brush. Long-term commercial pickers, who had harvested fire morels for several years, however, told me they “didn’t understand the question”, or, that the burnt forest was distinct because of how the lack of canopy encouraged more mosquitoes and horseflies. As such, through the repetition of exposure to these atmospheres, as well as the repeated coding of the burnt forest as a space for money-making, the affective “smoke”, lingering from harvesters’ distant

experiences of wildfire, dissipates. Thus, the nature of smokey memories and the transformation of the burnt forest into a workplace means that the blackened trees, animal remains, and “spooky” atmosphere loses their affective charge and, in turn, their ability to affectively inhibit commercial harvesters’ activities on the morel trail.

For commercial pickers, post-wildfire forests are undifferentiated beyond their ecological conditions that lend to morel fruiting. There are no areas which are imbued with traumatic memories, nor those which elicit feelings of loss or sadness when compared to the pre-fire conditions. Thus, commercial harvesters take only the likelihood of finding morels into account when choosing locations in which to work (Stanton, 2018); this means they have more options than hobby pickers to identify and enter areas with large flushes of mushrooms. This larger range of options for harvesting, along with their greater knowledge of morel ecology, allows them to pick the vast majority of morels in any given fruiting season. In fact, commercial pickers harvested nearly all the morels in 2017 following the Horse River fire. Commercial harvesters only passed along the knowledge of “good” spots to local pickers the following year, once the viability of a feasible commercial harvest had passed and the risk of competition from locals has disappeared (Stanton, 2018).

5.3.3. Disconnection from People, Land, and Harvesting Ethics

Viewing post-wildfire areas as undifferentiated forests often comes along with transient harvesters feeling a disconnection from the people who live in and use these landscapes. As one professional harvester, Moe, put it, “We’re here to connect with the forests, not the communities” (Interview, June 2017). Feeling disconnected to the land, people and their experiences of disaster allows commercial harvesters to be significantly

more dispassionate about the morel harvest, particularly around issue of leaving morels behind for others—specifically locals—to harvest.

As Kimmerer (2013) and others (Fine, 2008) describe, wild harvesters, particularly subsistence pickers (Indigenous and non-Indigenous), often follow implicit rules which Kimmerer describes as the “Honorable Harvest” (Kimmerer, 2013, p. 175). For Kimmerer and other writers, wild food harvesters are expected to harvest only as much as one can consume themselves, or exchange with their relations. For Indigenous harvesters, this is not only a means of ensuring the ongoing health of the wild plant population, but also of honoring the reciprocal relationship between the harvester and the land, and the harvester and others who may come to pick later (Kimmerer, 2013). Of course, the trade and sale of wild foods, including mushrooms, is widespread in Canada and elsewhere. However, as Tsing (2015) and Barron (2005) discuss, the social relations and ethical attachments between harvesters, mushrooms, and eaters, are altered in the context of international capitalist markets. Here, I elaborate on these contributions, by arguing that harvesters’ disconnection from people, place and disaster further erode these ethical commitments, allowing them to harvest ever-larger quantities of morel mushrooms.

Local harvesters nearly always described leaving some morels behind for other harvesters to pick (however, if they felt those harvesters would be commercial pickers, they were more likely to pick a spot “clean”). Commercial harvesters, on the other hand, did not follow this practice, instead harvesting every marketable morel in sight. The exception to this “first come, first served” rule was with respect to “babies”—small morels which were not large enough for consumption and which would bring in very little money (no more than a few cents each) if sold on the market. Commercial pickers had a code of “farming” these

mushrooms, where they were left alone for several days before picking them, in order to maximize their value in the market. As Susan, a settler, middle-aged, long-time harvester put it,

I pick some small ones, but I can't pick the babies. Why? Because you go back and in a few days more pop. And I just went back to a spot today that I was in two days ago. And there were little, teeny tiny babies that I left behind, and now they're like that [holds up two inches in his fingers]. And I'm like, all right, now I pick you. I've doubled my volume. (Interview, May 2019).

Most commercial pickers like Susan were not necessarily concerned about the ecological health of the *Morchella* population, nor leaving some behind for future pickers, but instead turning “pennies into dollars” (Field Notes, June 2019). Often, when commercial pickers realized their “farmed” spots were being taken by other pickers—local or otherwise—they were retaliatory. Some harvesters mentioned shouting at locals in the bush, and others, like Jim, spoke about destroying patches so no more mushrooms would grow:

When you come and do that to us, us professional pickers, I'm picking every single mushroom I see in there. Baby or not, it's gone. So, you're going to ruin it for yourselves by doing that. (Interview, June 2019)

While the idea of “first come, first served” and a feeling of having little obligation to leave morels for future harvesters was the predominant attitude among transient commercial harvesters, there were exceptions. One of the few Indigenous participants who were transient commercial harvesters described the importance of commercial pickers hiking deep into the forest for difficult-to-find morels, which are more attainable for skilled pickers, and leaving the “roadside” mushrooms for Indigenous elders and locals who are looking to harvest for personal use. Ronnie, a long-time morel mushroom buyer for one of the largest mushroom companies, insisted upon running small training sessions at the beginning of the season for

local Indigenous people to learn how to harvest morels. Burt, another long-time Indigenous commercial picker, explained his commitment to local Indigenous communities:

Like you don't understand how these fires have impacted those elders, all those other people that you're seeing, they were all taken away from their home. They didn't know if they had a home to go back to. And you come here on a vacation, a working vacation, and you treat them like shit... When a large group comes in and — just goes out as a large group and takes all the easy ground. These older people, they need spots where they can go into the ditch and pick a few mushrooms. And when you've got large groups that go out, they pick everything. They don't leave a baby, they don't leave anything — It's wrong — But everyone's like "No, they're not your mushrooms". But I'm like "Well, there's a smart way, a smart ethical way to do this, and we are Grassy Plains is just down the road, that's the First Nations of the area, and their Elders deserve to come pick too." Like they were evacuated... You try to be helpful, to tell them where they want to pick, what to pick, the size of the mushrooms, how to do it. Uh, be helpful that way to the locals because they were the ones that were impacted. (Interview, June 2019)

This attitude of reciprocity, ethics, and the propriety of morels on Indigenous land, however, was not universal among all Indigenous commercial harvesters. For example, a young Indigenous harvester who had never experienced a wildfire before expressed frustration at the "entitlement" of local elders' requests for prime picking spots on the basis of their experiences the fire and colonial violence. As he put it:

We were here first. It's not like okay, you want to share the spot. It's not like that, dude. Push on a couple hundred meters. I'm Native, I'm First Nations, and I say it's bullshit what these elders — what these elderly people pull. It's disgusting. Get over it. (Interview, Jim, June 2019)

This picker had been frustrated and hurt from feeling excluded from First Nations culture and community as a youth who lived off-reservation. Because of this, Jim indicated that he prioritized income earning over the "entitlement" of elders based on their positions in the community and not "get[ing] over" their experiences with colonial violence, such as residential schools. This, combined with his profession and non-experience with fiery

memories, allowed him to adopt similar understandings of responsibility and ethics to most of his settler commercial harvester counterparts.

5.4. Mediated Affects: Indigenous Disaster and Colonial Memory

Compared to their local settler counterparts, local Indigenous people who have recently experienced wildfire have distinct encounters and challenges with morel mushrooms and the transient harvesters who follow them. This section will discuss how, *in addition to* their recent encounters with wildfire and fiery memories, Indigenous harvesters' capacities along the mushroom trail are mediated by the historical and present-day realities of settler colonialism and racism. This demonstrates that post-disaster affects are not universal (Tolia-Kelly, 2006), and examines how race mediates affective capacities during interactions (see Anderson regarding Fanon (2014, pp. 81-82)), and in landscapes.

While not aiming to re-produce colonial trauma narratives or “wounded subjectivities” (Million, 2013, p. 6), I outline how Indigenous locals experienced wildfire differently than the non-Indigenous locals described in earlier sections. Indigenous locals not only have fiery memories of evacuation, chaos, and loss. They also described experiencing discrimination in relief efforts and being ignored when expressing concerns about the disaster's impact on their community, despite many members of First Nations joining provincial wildland firefighting crews to help extinguish the blaze. These experiences and relationships produce a distinct form of disaster memory which uniquely affects the experiences and capacities of Indigenous harvesters (and would-be harvesters). I outline how, beyond and in addition to the impacts experienced by non-Indigenous local harvesters, Indigenous harvesters' capacities to harvest morel mushrooms on their Territories are affected by the risky infrastructure of highways and presence of settler morel pickers in

Western Canada—though it must be noted that *mediated* affects should not be understood as *muted*.

5.4.1. Wildfire Disaster, Compounded by Colonialism

As discussed in Chapter 4, understanding Western Canadian wildfires as non-disasters is not novel. Given the long-term relationships between Indigenous Nations, boreal ecologies, and fire, wildfire was not necessarily considered a disaster to pre-contact Indigenous peoples. However, given the contemporary conditions of boreal fire ecologies and their accompanying large wildfires and disproportionate Indigenous risk, Indigenous people in Fort McMurray and NSN Whut'en Territories *did* experience the Fort McMurray and Shovel Lake wildfires as disasters, especially when taken together with settler-colonial land management policies. First Nations reserves often have additional fire-management challenges than non-Indigenous and off-reserve communities, with jurisdictional barriers leading to more difficult and expensive emergency responses for First Nations including Nadleh Whut'en (Sharp & Krebs, 2019). While settler evacuees from the Horse River wildfire were openly welcomed in places like Edmonton, Indigenous evacuees from Fort McMurray and the Shovel Lake fire experienced a lack of support and overt racism in the communities they entered during their displacement (Field Notes, May 2017, June 2019; Sharp & Krebs, 2019).

Following these compounded experiences of disaster, more picking for Indigenous harvesters was a means to replace other wild foods (mainly symbolically, but sometimes materially as well) following the destruction of large areas within their hunting and gathering sites. Nadleh Whut'en, for example, saw over 22% of their Territories burned by the end of the 2018 fire season (Sharp & Krebs, 2019). For Charlotte and Peter of Nadleh Whut'en First

Nation, morel harvesting was “exciting”, but took place only in the context of a significant loss of irreplaceable medicinal and food plants:

Charlotte: Well, I’m a huntress. And I fish and I pick berries and I get medicine in the bush. So, this has affected us in many, many ways, not only —

Peter: And medicinal purposes too, like cultural medicines and stuff.

CJ: Yeah, can you talk a little bit more about how the wildfire affected that?

Charlotte: When certain plants grow, then certain plants won’t grow back for this —

Peter: Certain areas, where the fire went —

Charlotte: —They’ll never grow back. And some of those are like, cancer medicine for our peoples, for our elders. And just different things of the land that people think, “Oh, that’s just a plant”. No, it’s not just a plant, it helps in different ways.

Peter: You go into an area [to pick morels], you think you recognize it and you’re like, “Fuck, did we pass it, is this the same?” Some areas don’t look the same. So. (Interview, May 2019).

Settler colonialism ruptured Indigenous relationships with fire, thus producing larger fires, greater risk of damage, and greater disaster impacts for Indigenous peoples in Western Canada (see Chapter 4, also Asfaw et al., 2020; Stewart, 2002). However, many transient settler harvesters leveraged historical Indigenous relationships with fire to justify their conceptualization of wildfire as natural and non-disastrous. As discussed in the previous section, this effectively compounds the re-naturalization of wildfire disasters by including Indigenous peoples into their ideas of “nature”, as is a common process within settler-colonial contexts, both historically and contemporarily (Mackey, 1998). For example, Nathan, a settler harvester in Fort McMurray, expressed his understanding of the relationships between wildfire, disaster, and Indigenous forest management:

I can’t tell if the media is trying to make them more of a concern or —because, I mean, like you’re, when the First Nations were here, all alone, they used to light fires to bring in new growth. They’d start forest fires. And now we’re trying to put out every single fire. You know what I mean... That’s a natural thing, right? And that gives

food for moose and deer and whatever, right? New growth is just part of nature. (Interview (Skype), October 2018)

Sometimes, harvesters' discussions of disaster wildfires as Indigenous-related events had more overtly racist undertones, and explicitly related Indigenous fire practices and wildfire disasters to the morel mushroom harvest:

Doug: There's just more and more fires. I'm finding a lot of these fires are lit. If you actually look at the fire maps, you'll notice that they're right up against the Native Reserves.

CJ: Oh. So, who do you think is lighting them?

Doug: People that want to make money the next year.

CJ: Oh, so mushroom people?

Doug: Well, Native bands or whatever.

CJ: So how do you think First Nations bands would make money off of the wildfires?

Doug: They've probably grown accustomed to going to the burns and picking. So why not have them close to home. They know that the Canadian government has given over the entire country to them. (Interview, Doug, June 2019)

These accounts demonstrate that Indigenous harvesters encounter wildfire in a distinct way from other locals: not only must they engage with the same fiery memories of evacuations, but also additional losses because of their relationships with the land, and racist assumptions about the status of the disaster. Thus, Indigenous harvesters in both Fort McMurray and NSN Whut'en Territories experienced both the atmospheres of fiery emergency, *in addition to* the effects of settler colonialism's slow emergency (Anderson et al., 2020).

5.4.2. Logging Roads, Indigenous Risk, and Settlers in the Forest

Indigenous harvesters' capacities to pick morels on their Territories are mediated by the presence of settler harvesters in the bush, who are facilitated by settler-colonial infrastructure. The most significant example of such infrastructure is the dense network of

highways and Forest Service Roads (FSRs) which were built throughout the 19th and 20th centuries to support mining and logging industries throughout Northern Alberta and British Columbia and to monitor and control dispossessed Indigenous land (Rossiter, 2008). While they remain mostly in use for logging companies, FSRs now offer improved access to other “bush” activities for the (settler) public: visiting the campsites which have appeared following road openings, hunting, and, of course, harvesting wild mushrooms. While some very experienced pickers talked about travelling via helicopter, motorboat and canoe to very remote burns inaccessible to vehicles, most morels harvested are collected from areas that are within reach for those who drive cars, vans, and trucks. As such, “access” to a burn is deemed central to its quality as a picking site.

Of course, the “access” provided to the forest as a result of FSRs, and thus the capacities of harvesters to utilize this access, is mediated by settler-colonialism: Canadian rural highways have a long history of violence for Indigenous peoples, particularly for Indigenous women. Morel harvesters, both settler and Indigenous, typically forage for mushrooms alone or in pairs, in forests with poor cellphone reception, and with their cars and trucks parked roadside. These conditions are particularly dangerous for Indigenous people in Western Canada, given the thousands of Indigenous women currently missing from rural areas such as these (NIMMIW, 2019), the recent murders of Indigenous wild food harvesters in Alberta (Cecco, 2020), and how settler policing institutions compound these risks (Palmater, 2016).

In Fort McMurray and on NSN Whut’en Territories, most settler participants indicated that, aside from running into bears or being injured by falling trees, they felt safe harvesting morels alone in the forest. However, while they were also concerned about hazards

like wildlife, Indigenous participants were more likely to also discuss their safety *in relation to other pickers in the bush*. For some participants, while they regularly used Forest Service Roads and harvested wild food plants and animals on their Territories prior to the wildfire, the increase in highway use by settler morel mushroom pickers represented a significant increase in risk for themselves and their families:

CJ: And you feel okay with them coming in and picking the morels?

Charlotte: I hope it doesn't get crazy because last year, our cousin was attacked on the other side, on the other area.

Peter: He ended up in the hospital.

Charlotte: Yeah, he almost lost his life because he got attacked with a bat over mushroom picking.

Peter: And yeah, and people were kind of getting carried away, drinking. And so, we want them to respect our land here. Guys get crazy and start shitting around. (Interview, June 2019)

The increased risk of violence towards Indigenous peoples also contributed to Indigenous harvesters being less likely to travel to burn sites outside of their own Territories and participate in regular commercial picking; only three Indigenous pickers in my study were part of the morel mushroom "circuit". As outlined above, for many Indigenous harvesters, the presence of and anticipated encounters with settler harvesters acted as a mediating factor for harvesting morels. Most morels harvested near Fort McMurray and on NSN Whut'en Territories were harvested by settlers, both hobby and commercial. However, I would like to be clear: while Indigenous harvesters' capacities were mediated by settlers in the bush, that does not mean their capacities were not potent, nor that Indigenous harvesters did not affect others in the bush. Eve Tuck (2009) writes about the dangers of discussing only the damage, and, by extension, only the mediation of capacities within, Indigenous communities. For Tuck (2009), "[o]ne alternative to damage-centered research is to craft our research to capture desire instead of damage" (p. 416). Drawing on this work, I will re-visit

the ways Indigenous economic power within commercial buying stations affected settler harvesters' possessiveness (Moreton-Robinson, 2015) of land and resources, and how Indigenous land managers re-imagined the opportunity of the morel mushroom harvest to the benefit of First Nations in Chapter 7.

5.5. Conclusion

This chapter discussed how different experiences (and non-experiences) with the varied spatial, temporal, material, and settler-colonial nature of wildfire disasters in Western Canada affected how various social groups were able to define, and ultimately capture, post-disaster opportunity. Through applying Curti (2008)'s arguments regarding the connectedness of memory in determining affective atmospheres and bodily capacities, I have outlined not only how memories matter in harvesters' affective capacities to capture post-disaster change, but also how the materialities, spatial and temporal distances, and the mediating role of settler-colonialism do, as well. Further, demonstrating the relationship between bodily capacities and the qualities of disaster memories through vignettes of those with *fiery* memories and others with *smokey* memories, I contribute to ongoing discussions in geography regarding the productive nature of encounter (Wilson, 2016), specifically on their lingering affective charge (Anderson, 2014).

The chapter has also addressed somewhat problematic issues in institutionally focused literature regarding disaster capitalism, which, at times, exaggerates binaries between overwhelmed disaster communities and opportunistic capitalist outsiders. Instead, I demonstrate how, despite *all* actors being opportunistic in the post-disaster space, both local and outsider, varied embodied memories of disaster affect harvesters' definition of morel opportunity, as well as their capacities to capture it. As such, this chapter highlights

alternatives to disaster capitalism by challenging simplistic understandings of post-disaster change and emphasizing the concurrent generative capacities of multiple groups in the production of post-disaster opportunity. While commercial pursuits may dominate the morel trail today, alternative uses of fire morels and claims to the post-disaster landscape persist. These alternative forms of opportunism, including “making sense” of memories, making up for lost foraging and hunting sites, and connecting with the land are all possibilities of what could emerge should the contingent ecologies of *Morchella* described in Chapter 4 shift with climate change or the successful cultivation of morels.

These vignettes demonstrated how different groups of harvesters, due to the interactions between their embodied memories of wildfire and the affective atmospheres of the burnt forest, were differentiated in their capacities to pick morels and affect others in the bush. Commercial settler harvesters leverage these capacities to dominate the morel harvest by influencing the ethical standards of the hunt and picking most of the morels for commercial profit. The next chapter problematizes this dominance by highlighting the precarity experienced by many of these commercial harvesters, along with the affective labour these pickers perform in order to continue picking morels despite the harvest not aligning with their pre-season aspirations and dreams.

6. Maintaining Opportunity: Morel Mushrooms, Settler Dreams, and Affective Labour

6.1. Introduction

After three years of hunting for morel mushrooms, I find myself feeling the “morel itch” when warm weather comes in mid-May every year. Nearly all the morel pickers I have met talk about the same feeling, along with the morel dreams that come in early spring and become more vivid when first arriving to the burn. Every night when we close our eyes, visions of the perfect mushroom patch appear, with morels carpeting the burnt forest floor, growing out of trees, and surrounding us. Some pickers who harvest other wild mushrooms even claim that morels are unique in their ability to enter your dreams. Others use their dreams to find fruitful patches. As Marcus, a thirty-something picker described in early May:

It’s the same thing, you don’t even have to be dreaming, you just close your eyes. I could close my eyes right now and all’s I see are morels. It’s just you see them growing, and the mushrooms are getting larger patches happening, they’re growing out of the trees, I don’t know. (Interview, May 2019)

In our dreams, harvesters pick the morels from these perfect patches, and upon waking, feel excited for what we hope will be a bountiful mushroom season. Commercial harvesters dream for a *lucrative* season, too. The morel mushroom harvest is known across Western Canada as a fast, if not easy, way to earn cash for those who are willing to work hard in the bush and approach the season with an entrepreneurial attitude and grit.

The previous chapter demonstrated how commercial morel harvesters have a greater impact on the ethical practices of the morel harvest than non-commercial, local pickers. The ethics and priorities of transient commercial pickers are, at first inspection, capitalist in nature. Their disproportionate impact on the practices and expectations for the morel harvest allows for the manifold opportunity opened by the flush of morel mushrooms to be captured for what appear to be capitalist pursuits. However, upon arriving to the mushroom hunt, these pickers face an industry which is dominated by a handful of large mushroom companies who are rumored to collude on prices to ensure they pay pickers as little as possible. For most part, the only path to meagre success is to pick as many morels as physically possible in the short six-week season. Taken together, most morel pickers are operating as unorganized “gig” workers, informally selling the products of their labour—morel mushrooms—into a colluding monopsony²⁴.

Given this context, this chapter questions how this group *maintains* their claims to post-disaster opportunity by navigating the tension between their dreams of quick cash, freedom, and adventure, and the conditions they face as precarious workers in the unregulated wild mushroom industry. Specifically, I use the formation, transformation, and dissolution of morel harvesters’ dreams to take a closer look at the affective atmospheres and affective labour performed by these commercial harvesters. I trace the experiences of commercial mushroom pickers on NSN Whut’en Territories through visits with harvesters throughout the

²⁴ The Canadian economy is more focused on extraction (of mushrooms, oil, gas, gold, or even fruit) and the land (in the case of tree planting) than in the U.S. economy. However, research involving census data demonstrates that, like in the U.S., “gig workers” in resource industries, including agriculture, forestry, oil, gas, and mining, are not a large proportion of gig workers in Canada, only accounting for 2.5% and 0.7% of male and female gig workers overall (Jeon et al., 2021).

morel mushroom season—from the first days of trade to when pickers began to pack up and move on from the burn.

In addition to participant interviews and observations from my time at various mushroom-buying camps, I draw autoethnographic insights from my field assistant, Claire, and my experiences as relatively inexperienced morel pickers in British Columbia in 2019. For five weeks, we decided to try to survive only using the money we made picking morels, paying for all our food, gas, beer, and car repairs with the stash of “mushroom money” we kept in an envelope on the dashboard of Claire’s van. Of course, our (semi) solvent bank account balances as a last resort differentiated our experiences with many of the harvesters we met, but the atmospheres in our van often matched the atmospheres among pickers we spent time with throughout the season. As Claire’s first experiences of morel picking were in the commercial context in British Columbia, I have included excerpts from her field diary throughout this chapter. This data was collectively produced: we engaged in conversations about Claire’s experience and the use of her diary directly in this chapter throughout the writing process, and her entries mirror what many first-time, precarious harvesters reported in casual conversations with us throughout the season, when my recorder was packed away.

For many pickers like Claire and me, the experience of the post-disaster opportunity of commercial morel mushroom harvesting shifts from excitement to disappointment and worry as the material realities of work in the mushroom industry become apparent. I will discuss how these affective states and atmospheres emerge in tandem with the nighttime dreams of mushrooms that seem to appear for many, if not most, pickers throughout the harvest. Through descriptions of harvesters’ dreams—both aspirational and literal—this chapter outlines the labour conditions and atmospheric transformations associated with

commercial morel harvesting. I also examine the forms of affective labour required to perpetuate workers' energy, dreams of post-fire opportunity, and, ultimately, their "common sensical" (Rifkin, 2013) settler-colonial claims to undifferentiated lands.

Through an attentiveness to settler commercial harvesters' dreams, I aim to answer a secondary question about how settler dreams contribute to extractive labour performed on Indigenous lands. I draw from the connections between nighttime dreams and individual unconscious and suppressed "wishes" (Freud, 1900/2015), examining how the figure of the morel within harvesters' nighttime dreams represents aspirational desires for harvesters beyond the mushroom itself. Further, however, I also consider how metaphorical dreams or modern "dreamworlds" (Benjamin, 1999) can also be collective experiences which can be politically repressive *or* emancipatory (Marx, 1843 as cited in Goldstein, 2006). By understanding how settlers' nighttime dreams of finding morels are linked to a settler-colonial "dreamworld", where settler rights to adventure and commerce on Indigenous lands are a given as part of a liberal, post-colonial vision of Canada, I can examine how these dreams act to intensify the affective labour which settlers perform to maintain these claims.

As Hirt (2012) summarizes, the ontological standing of dreams among Indigenous peoples "radically differentiates the Indigenous perspective from Western traditions, which associate dreams with the subjective, the imagination, fancy, and illusions, all of which are considered separate from "reality" (p. 108). Indigenous scholars have long discussed the roles of dreams in Indigenous communities as experiences which are distinct from European understandings. For example, Vine Deloria Jr. (2006) writes about how for Plains Medicine Men and Elders, dreams were often understood as an extension of waking reality. Dreams are useful to connect with the spiritual world, as well as to learn practical and actionable

knowledge for waking existence, as “[p]eople had dreams in which aspects of the living universe came forward to urge them to take certain well-defined paths of behavior” (Deloria, 2006, p. xxv). Of course, most commercial morel harvesters, including most of those featured in this chapter, are not Indigenous: they are visitors to and occupiers of the land. Nonetheless, given the importance of dreams in both Indigenous and Western understandings of political power, this chapter asks what kinds of settler-colonial “dreamworlds” settler harvesters’ dreams perpetuate on Indigenous Territories through the mushroom harvest. By thinking with Indigenous and Western perspectives on dreaming with respect to the importance of the dream as an extension of harvesters’ individual wishes and collective “dreamworlds” and realities, I will demonstrate how settler dreams map onto and contribute to affective atmospheres on the mushroom trail, and how these dreams are leveraged to reproduce harvesters, the wild mushroom industry, and maintain settler claims to land and post-disaster opportunity.

6.2. Settler Aspirations: Entrepreneurialism and Freedom on Indigenous Lands

Throughout the chapter, I work between two forms of dreams: aspirational dreams and nighttime dreams. This section will outline the aspirational dreams which draw settler harvesters to leave their homes, jobs, and communities behind in order to participate in the fire morel harvest. These pickers are drawn to burn sites because they see wildfires as imbued with opportunity for easy cash and the chance to “be their own boss[es]”, but they are driven by dreams of escaping cities, the “rat race” and wage labour, past traumas, and societal expectations. As Stephen Turner (2011) describes, settler dreams are “a specific desire-drive (for land, prosperity, freedom and belonging)” and so “living the dream—actively, productively, unself-consciously—makes the place that dream’s reality” (p. 116). I will argue

that while not all harvesters' aspirational dreams are *intended* to contribute to dispossession and accumulation, there are nonetheless borne from their "settler common sense" (Rifkin, 2013), taken-for-granted assumptions and structures of feeling which allow settlers to feel entitled to land, resources, and post-disaster opportunity on Treaty 8 lands and NSN Whut'en Territories.

6.2.1. *Petit Disaster Capitalism and the Entrepreneurial Imagination of Opportunity*

The narrative of commercial morel harvesters in Western Canada as gritty entrepreneurs is common in the annual soft-story media pieces highlighting the harvest in local papers (see Bathe, 2019). Along the mushroom trail, many commercial pickers, do, in fact, envision themselves as entrepreneurs and businesspeople, and, as described in the previous chapter, deny the severity of the disaster event in order to rationalize the extraction of mushrooms for cash. Commercial mushroom pickers therefore view large, disastrous wildfires as imbued with opportunity to "be their own bosses" and have aspirational dreams of full buckets of morel and wallets full of tax-free cash. Given these attitudes, at first glance, commercial pickers who arrive at burn sites appear to act as petit disaster capitalists (Faas, 2018). After all, these pickers see disaster as an opportunity to exploit for monetary gain, and, as described in the previous chapter, displace non-capitalist approaches to morel harvesting with commercial endeavors.

Disaster capitalism in all forms involves more than the opportunistic actors and their (complex) desires for money-making, however, and necessarily involves a shift in the policy and regulatory environment towards neoliberalism (Klein, 2008). A.J. Faas (2018) outlines how this process works beyond large corporations by identifying how well-meaning and small-scale activities aimed at recovery can perpetuate capitalist and entrepreneurial

imaginations. Many commercial harvesters, when asked about the relationship between wildfire disasters and the morel industry, imagine themselves as helping with disaster recovery through their entrepreneurial pursuits. They claim that, through picking mushrooms, they are gleaned economic value out of a forest which has otherwise lost its (timber) value in the wildfire and understand their relationship with fire-affected communities as an economic boon through their use of local goods and services. When asked about their role in wildfire-affected communities, they understand themselves as agents of recovery through the money they spend at grocery stores and gas stations around burn sites:

So, people are making, all kinds of people are making money, and the communities all will benefit from it. Because you're going to have, you know, an extra 400 [people around], it depends on how big the fire is, the more people the better, and it's good for everybody. I think that's, I know it's a tax-free, so maybe that's why they do that, because it helps benefit the communities. (Interview, Sheri, June 2017)

While it is unlikely that provincial and federal governments leave the morel industry unregulated because of the services used by morel harvesters, this attitude demonstrates how commercial harvesters rely on imaginations of consumption-led recovery and community engagement in order to justify their presence on burnt Territories. Thus, some harvesters describe hostile interactions with locals as a result of a lack of the locals' understanding or gratitude for the benefits that are intrinsic with an influx of industry workers, thus ignoring long histories of man camps (Pasternak et al., 2019) and the environmental impact of the morel industry itself.

6.2.2. Beyond Entrepreneurs: Dreams, Freedom, Escape, and Adventure

Despite their dreams of easy cash and neoliberal understandings of disaster recovery, commercial harvesters are motivated to participate in the morel harvest by aspirations beyond those associated directly with petit disaster capitalism. While ecologies of disaster

differentiate the stories of fire morels from other wild mushrooms, it is in commercial harvesters' dreams of freedom that we can trace connections between the fiery ecology of *Morchella* with Tsing's (2015) accounts of matsutake picking in "Open Ticket, Oregon". Tsing writes of how harvesters, white and Southeast Asian, are motivated to harvest by a "freedom [which is] irregular and outside rationalization; it is performative, communally varied, and effervescent" (p. 76). Tsing (2015) writes of harvesters seeking freedom from apartment life, from post-traumatic flashbacks of war in busy cities, and from liberal ideals of "standard employment" (p. 77). As I will outline below, morel harvesters hold similar aspirational dreams. However, I will demonstrate that desires and enactments of freedom presented by white/settler mushroom harvesters are not just "American", as Tsing (2015) explains, but rather are characteristic of settler states more broadly. Thus, the manifold forms of freedom that settler commercial morel harvesters dream of not only contribute to capitalist accumulation but are borne from settler-colonial claims to opportunity on Indigenous lands.

Generally speaking, morel pickers are against "the system", with many choosing to live a transient lifestyle in order to avoid a "nine to five" job and other commitments. The morel harvest fits into the off-grid dreams of many pickers, like Mitch, who explained that he was being "paid to camp", as opposed to working nine-to-five *in order to* camp like the wage labourers he knows (Field Notes, May 2019). Many young harvesters, like the groups of twenty-somethings who flock to British Columbia from Québec, pick morels as a means of experiencing independence and adventure. While pickers hope to earn enough money to fund their way back home or their skiing trips in the off-season, they are not aiming to become rich from the mushroom trade. Some explicitly discussed opposing life as wage labourers in a capitalist system and viewed morel harvesting as a way of operating on its margins (or its

“unruly edges” (Tsing, 2012)), in combination with other forestry piecework in British Columbia such as tree planting or fruit picking, or within the platform “gig” economy, working as delivery or Uber drivers.

As one young commercial harvester described it, leaving labour in the forestry industry for morel picking was a means to fulfill his dream of being “free”. Meeting other harvesters who have left wage jobs in various industries, including forestry, oil and gas, hospitality, for the freedom in the morel harvest is incredibly common at commercial mushroom camps. Despite commercial harvesters having limited experiences of wildfire disaster, many pickers are often motivated to follow morels as a way of escaping their own difficult situations and trauma. Examples include young adults leaving difficult family lives, an automotive laborer who made a critical error fixing a car which led to a collision, to those having experienced workplace accidents, and workers who faced ableist discrimination in the workplace. Together, harvesters repeatedly described how they were picking mushrooms for cash, but also for the time, space, and freedom to recover from the events and situations which haunted them. Claire, too, understood the desire to leave stressful wage conditions in order to recover from difficult times and be free in the Canadian west, as she left a busy job in London to travel to British Columbia in the summer we met.

Harvesters’ manifold aspirational dreams which pull them towards the mushroom hunt—entrepreneurialism, freedom, and escape—while varied, are connected by their (imagined) realization on the mushroom trail. Settler commercial harvesters rely on taken-for-granted, unmitigated access to wildfire-affected Indigenous lands in order to fulfill their dreams. Harvesters’ practical abilities to fulfill these desires are dependent on skill, experience and luck. Nevertheless, pickers fundamentally depend on the assumption that they

have the unspoken right to enter Indigenous Territories in order to have adventures, freedom, and opportunity. These quiet assumptions reflect not only in harvesters' understandings of Crown land and jurisdiction (see Chapter 7), but also reflect their "settler common sense" (Rifkin, 2013).

Settler common sense extends upon understandings of settler colonialism as a structure (Wolfe, 1999; 2006) and logic (Smith, 2012), where the assertion of Indigenous jurisdiction over what settlers refer to as Crown land challenges their understandings of Canadian history, law, and land tenure. Instead, settler common sense refers to the affective atmospheres of settler life, and

asking how emotions, sensations, psychic life take part in the (ongoing) process of realizing the exertion of non-Native authority over Indigenous peoples, governance, and territoriality in ways that *saturate* quotidian life but are not necessarily present to settlers as a set of political propositions or as a specifically imperial project of dispossession (Rifkin, 2013, p. 323).

Here, I aim to extend upon Mark Rifkin's work within American literary studies and understand how 'actually existing' settler common sense manifests and falters among settler resource workers in the Canadian morel industry. Commercial harvesters are a helpful group to explore "actually existing" settler common sense, as they do not see themselves as participating in dispossession, imperialism, or even accumulation: after all, many are participating as a way of "being sustainable", "living off grid", or "getting away from society". However, as I demonstrate in the sections which follow, harvesters' aspirational and nighttime dreams are influenced by the settler colonial logics which underlie them. Thus, while not necessarily intentional, harvesters' aspirational dreams of freedom and adventure ultimately allow for the reproduction of extractivist logics and the settler state's claims to land.

6.3. Atmospheres of Anticipation and Nighttime Morel Dreams

But once you figure out where they go, it's really exciting. I have a hard time sleeping at night... I close my eyes and I just see fields [of morels]! (Interview, Liliane, June 2019)

Aspirational dreams draw pickers to the morel trail and contribute to harvesters' excitement for the season. Once they arrive to the burn site at the beginning of the mushroom season, however, harvesters begin to experience a different form of morel dream: one where images of morels and "perfect patches" visit them during the nighttime. During these dreams, the uncooperative, elusive morels described in Chapter 4 reveal their hiding places to pickers, and many harvesters report that their dreams of morels help them find the mushrooms during the daytime. This section discusses the way these nighttime dreams intensify harvesters' anticipatory affective states (Adams, Murphy & Clarke, 2009) of fulfilling their aspirations amidst the burnt landscape.

Before we return to the mushroom trail, a brief return to a discussion of the ontological status of nighttime dreams and more-than-human agency and subjectivity within Indigenous thought, practice, and governance is warranted. Elizabeth Povinelli (1995) describes how the Dreaming—a cosmological order among Indigenous peoples in Australia which, while encompassing nighttime dreams (Price-Williams & Gaines, 1995), is not to be reduced to this—informs labour practices through close attention to the behaviours of objects which would be considered non-sentient in Western ontologies. Povinelli (1993) describes Dreaming as a "competing discursive fram[e] for thinking about land spatiotemporally" (p. 236) for Western understandings of "Development", and where the Dreaming provides a framework for Indigenous peoples to understand ecological and political changes as well as resist non-Indigenous encroachment on their lands. For Indigenous peoples in North

America, the ontological status of nighttime dreams and visions in Indigenous law and governance influences practices of resistance, for example through the prophetic visions which led to Lakota Ghost dances which emerged in the late nineteenth century (Estes, 2019, pp. 122-127). The nighttime dreams of morels which settler harvesters experience are not to be conflated with the Dreamings of Indigenous peoples in Australia nor the prophetic dreams and visions of Lakota peoples. However, what connects these cases of Indigenous dreams to those explored by Western thinkers, including Benjamin (1999) and Bloch (1972, as cited in Goldstein, 2006), is the emancipatory and political potential of dreams. This section explores how, along the mushroom trail, settler harvesters' nighttime dreams are instead used to *perpetuate* capitalist "Development" (Povinelli, 1993) and settler-colonial "dreamworlds".

While Western perspectives on dreams suggest that settlers would not take the morels visiting their dreams literally, in the field, harvesters' morel dreams, and what the mushrooms "tell" them in their sleep, are taken seriously by the harvesters, and as such, influence their affective states and guide their actions at camp and in the forest. As settler harvesters take their nighttime visions and messages from charismatic and elusive morels seriously, these dreams are filtered through their settler common sense (Rifkin, 2014). However, the morel harvest takes place on lands where Indigenous land rights are deemed irrelevant to settler pursuits of freedom and profit. Nighttime dreams present an opportunity to improve their harvesting skills and are not considered in relation to land, ecologies, nor the people affected by disaster. Thus, while many of their *aspirational* dreams may (at least subjectively) be borne from desires to "awaken" (Benjamin, 1999, p. 388) from capitalist "development" (Povinelli, 1993), settler harvesters' *nighttime* dreams at the beginning of the season function to increase the rate of, and harvesters' entitlement to, extraction on Indigenous lands.

6.3.2. Anticipatory Affects and the First Morels

It was like, yep, they're here for real now, now this is it. Now whenever I close my eyes, I start seeing the mushroom. (Interview, Kayden, May 2019)

Once harvesters begin to arrive at areas like NSN Whut'en in mid-May, various buying stations are assembled around the burn site. These buying stations act as hubs for commercial harvesters, where they can sell their mushrooms, set up their tents, and socialize with other pickers around almost-nightly bonfires (Figure 13).



Figure 13: A morel buying station on NSN Whut'en Territories in June 2019.

I return here to a discussion of affective atmospheres (Anderson, 2014) of the morel harvest introduced in the previous chapter. While the burnt forest produces atmospheres of anxiety and sadness for locals who have fiery memories of disaster, commercial buying stations in May are full of anticipatory, almost electric moods. Driven by dreams of finding morels and fulfilling hopes of profit, adventure, and freedom, conversations around the campfire in the first few weeks of the season are excitable and in anticipation of the upcoming

flushes of morels. Commercial harvesters at buying stations, no matter what their aspirational dreams or experiences, talk about how many mushrooms they are about to pick, the money they are about to make, and the things they will do with the fast, easy cash. It is hard to avoid being swept up in the excitement. After spending time with pickers at buying stations in early May, Claire and I would be too excited to head back to our campsite to cook, write our notes, or rest. Instead, we would often head out into the forest, in search of our first hauls, in hopes of being the first pickers to find a good patch.

Once the first morels starting trickling into the buying stations, fungal anticipation intensifies. Adams, Murphy and Clarke (2009) describe anticipatory affective states as “an excited forward looking subjective condition characterized as much by nervous anxiety as a continual refreshing of yearning, of ‘needing to know’” (p. 247). Harvesters increasingly became curious about how many morels were coming into the buying stations, who picked them, and from where, as if to determine just how successful the upcoming season could be. Finding the first morels of the season, especially for harvesters who have never picked the fungi before, only elevates this anticipation of the possibilities for the season ahead. Finding your first morels is often an intense and exciting experience, and one which seems to open up the possibility for increasingly bountiful harvests in the coming weeks. As Claire described:

Finding the mushrooms. I was wandering... after what seemed like forever, I finally got a sense of direction. I headed in, past the small trees towards an area of apocalyptic burn. There was Carley-Jane. I was excited to see a morel in the flesh for the first time! She led me to where they were, and I was somewhat surprised by how hidden and non-mushroom like they looked from above. I became worried at my inability to be able to spot them. I understood why my mind was wandering so much when I really didn't have a clue what I was looking for. It's one thing looking at pictures on the internet and a completely different things spotting them in the wild! But I was surprised at how once I'd seen one, others began to show themselves to me. I was

developing an 'eye for it'. We took some and cooked them up for dinner. They were much tastier than I would have imagined. Yummyyy! (Field Notes, Claire Dennis, May 2019).

For first-time pickers like Claire, the moment of finding your first morels is one of relief, excitement, possibility and (culinary) delight (Figure 14). Quiet worries of not finding a morel vanish in that moment, lending over to an anticipation of gaining the skills necessary to have morels “show themselves” to the harvester on the forest floor.



Figure 14: Claire with her first haul of morels in NSN Whut'en Territories in May 2019.

These excited feelings on mushroom trail extend into the daily activities of working life: in the first few weeks of mushroom hunting, the conditions of camping are novel. A day of hiking in spring, before mosquitoes fill the air, followed by sleeping under the stars is a refreshing, exciting break from “normal” life. More significant is the feeling that morels’

difficult and elusive characteristics can be understood and outwitted, as the possibilities for finding ever-larger patches of mushrooms begin to seem endless. Because of the rapid increase in the number and size of morels that harvesters find at the beginning of the season, along with the relatively high price paid—up to \$14 CAD per pound in the first week of buying—it is easy to excitedly extrapolate from these first few weeks and envision a wildly lucrative season. Many new pickers had feelings like Maxime and his girlfriend, two twenty-something pickers from Québec who had never been to British Columbia or harvested morels before, did about their prospects. Despite having no prior experience of morel harvesting and being unfamiliar with NSN Whut'en Territories, Maxime was sure lucrative days were on the horizon:

CJ: And what's a good day for you, picking?

Maxime: A good day? We estimate a good day as \$500 and up each.

CJ: Oh wow! And have you been doing that well?

Maxime: Not yet, but it's coming, it's coming.

CJ: And what would be a bad day?

Maxime: A bad day? Not making any money. We never not find anything, that never happened to us yet, and I don't think it will happen, either. But I guess that would be a really bad day, not finding anything!

CJ: And how did you feel on a day where you didn't find so many?

Maxime: The first days, well, we don't you don't get discouraged so much. You know, it's the first days, we never did morel picking, so we were like okay, that's normal. And we always, it would always build up. Every day, we would find double of what we found the day before. So, we're coming along. (Interview, June 2019)

After finding the first morels, harvesters' dreams and visions of morels become even more intense, as it feels like the highly anticipated season has really kicked off. Pickers talk about these dreams to each other and discuss how the experience of closing your eyes only to see morels is shared among nearly everyone at camp. Harvesters often described how the daytime excitement of finding and discussing morels made it difficult to rest at night.

Repetitive, focused visual tasks tend to infiltrate dreams, as many who has spent time weeding a garden, harvesting fruit (Frost, 1915, as cited in Stickgold et al., 2000), or playing Tetris can attest. Nonetheless, many harvesters insist that morels are distinct in their abilities to enter dreams when compared to picking other mushrooms or performing other forestry tasks. For example, Michel, a twenty-something picker from Québec, compares morel dreams to those he experienced while tree planting in B.C.:

I've had dreams like that about tree planting, but not that much. Just like, once in a while, I would be like, oh my god, I have to go plant, I have to go plant trees, but I would wake up and be like "ah it's okay". This is different. As soon as I close my eyes, I see them. (Interview, June 2019)

Despite morels' abilities to enter harvesters' dreams more than other tasks, Tetris dreams can help us understand what morel dreams do for inexperienced commercial harvesters in the bush. Research has demonstrated how dreams help with the learning process through experiments involving Tetris-playing (Stickgold et al., 2000). After dreaming about the game, players—especially poor-performing neurotypical novices who report seeing visual representations of the game while falling asleep—improve their abilities in later Tetris sessions (Stickgold et al., 2000). Once it is clear there is a need to learn how to find morels on the burnt forest floor, it appears that morel dreams may *literally* help new pickers search more effectively during their waking hours. In this context, harvesters' reports of dream-time morels "showing [them] where to pick" begin to sound very apt.

However, it is possible that early-season morel dreams do more than motivate harvesters and help novice pickers identify the fungi on the forest floor. Further research on the experience of Tetris dreams suggests that intrusive, repeated dreams of focused tasks

have the ability to displace traumatic nightmares²⁵ (Holmes et al., 2010; James et al., 2016). In this way, unlike local pickers whose traumatic wildfire memories were triggered by returning to the burnt forest (see Chapter 5), commercial harvesters' morel dreams may *displace* the nightmares many came to the forest to escape. Harvesters often speak about how the experience of mushroom picking can "clear their heads" of bad memories. Through their repeated, almost hallucinatory appearances behind closed eyes, it appears that morel dreams allow some pickers to (if only fleetingly) find the forms of freedom they are searching for along the mushroom trail.

6.4. Morel Precarity, Dreams, and Affective Labour

Went out to our patch, got mushrooms but not loads. We need a new patch. Still enough to take in 45 dollar[s]. I'm feeling tired all the time. (Field Notes, Claire Dennis, June 2019)

Despite morel picking providing settler harvesters with an opportunity to experience the manifold forms of freedom they seek, as Tsing (2015) describes it, "[freedom] provides the only official rudder for precarious living" (p. 101). While individual and collective narratives about commercial morel describe harvesters as entrepreneurs, this group is not monolithic. While some are financially buoyant making it "on their own" in the morel industry, most of these harvesters are best understood as precarious, informal piece workers akin to other outdoor piece work in British Columbia such as tree planting or fruit picking, but without any regulatory oversight. In their demographics and motivations to pick mushrooms, morel harvesters have much in common with other piece workers operating in

²⁵ However, it is important to note that the temporary displacement of intrusive dreams by Tetris-playing is not universally accepted as a helpful intervention for the treatment of post-traumatic stress symptoms in psychiatric literature (see Cristea et al., 2018).

Canadian forests, including the vast number of tree planters which work in British Columbia every summer. For example, harvesters are a combination of young students and “lifers” (Ekers & Sweeney, 2010), workers have little control over the price they are paid for their work, and, despite the ecological impacts of the morel harvest, including litter and human waste left behind, harvesters and planters are both imagined to be part of “restorative” industries. Morel harvesters are similar to tree planters in that they have complex relationships to and are often resistant to labour organizing (Ekers & Sweeney, 2010).

As the season wears on, morel pickers experience tension between their aspirational dreams of freedom and the precarious realities of freelance mushroom picking. As a result, harvesters’ dreams transform once faced with the difficult material realities of the morel harvest. For me, worrying about our dwindling mushroom money led to a nightly return of nightmarish dreams of a food-insecure youth; for other harvesters, worries about their day-to-day living expenses and long-term futures crept into their thoughts and moods, and for some, nighttime visits from morel mushrooms disappeared entirely.

In this section, I outline how harvesters’ aspirational dreams of freedom mean that instead of organizing for better labour conditions, pickers use the nighttime dreams and previous harvesting experiences of “lifer” harvesters to help them perform affective labour to reproduce themselves on the mushroom trail. The goal of this labour is, ultimately, to maintain affective states of anticipation in order to mitigate the creeping feelings of boredom and financial worry felt by the most precarious harvesters as the season progresses. Adams, Murphy and Clarke (2009)’s work describes the function of harvesters’ affective labour aptly, where “anticipation is, in this sense, a strategy for avoidance of surprise, uncertainty and unpreparedness, but it is also a strategy that must continually keep uncertainty on the table”

(p. 250). Using experienced harvesters' nighttime dreams of prized later-season morels, harvesters can mitigate difficult feelings and maintain feelings of excited uncertainty regarding future harvesting conditions and earning potential. Thus, by performing affective labour partly through "lifer" harvesters' experiences and nighttime dreams, precarious pickers can reproduce themselves, their aspirations, and each other in order to figuratively "hold open" the post-disaster window of opportunity represented by morel mushrooms. However, while the affective labour borne from morel dreams helps mushroom pickers continue work, it is ultimately captured by the mushroom companies in order to keep harvesters on the land and extract as much fungal value from the burnt forest as possible.

6.4.1 Reproducing Precarious Labour

After a few weeks harvesting morels, it becomes apparent that for many young, inexperienced, or disabled pickers, days spent picking are not very profitable. While a handful of very experienced harvesters do have the \$500 days Maxime and his partner anticipated, many pickers—including Claire and I—pick hardly enough mushrooms to cover basic expenses such as food and gas. It was very common, for example, for inexperienced pickers to harvest for eight to ten hours and earn less than \$100 as they sold their mushrooms. There were several days where Claire and I would search for morel spots, only to find already-cut morel stems, and, once morel prices dropped to a third of the price we received at the beginning of the season, some days we earned less than \$50 between the two of us. As long-time buyer Ronnie put it,

And a lot of people can't afford to go out there and start picking and stuff. Because they stay here, want to make big money, but the big money's not out here no more...Like sure, the pickers are making 100, 200 bucks a day, well not all of them. But the guys that follow the circuit and stuff. They do all right, because they know what trees to look for, and what ground to look. These new guys, they come, and they

are like, okay, let's go over here. They don't know what they're looking for or what they're looking at. And so, they come, and they've got 15, 20 dollars' worth. That weeds out the weak, right? (Interview, June 2019)

It is not just young harvesters who are “weak”, however. One “lifer” picker, who had been harvesting morels for over twenty years, described his plans for retirement as “getting used to the taste of dog food” (Interview, Doug, June 2019). Buyers, despite having contracts with mushroom companies and experience in the industry, also regularly live paycheck to paycheck. For example, Wayne and Sharon, a married team of middle-aged buyers, were buying morels as a replacement income after Wayne lost his job in the oil industry and Sharon lost her job as a care worker. There are many young pickers who are even more precarious than Wayne's family and are unable to afford food, getting by eating the leftovers from others' meals, or who become stranded because their cars break down and they are unable to cover the cost of repairs with their daily earnings.

It was at this time of the season, when the excitement of the first hauls of morels had worn off and the realities of precarious piecework had set in, that pickers were more willing to discuss the differences between the wage labour they had left behind and the volatility of their finances while mushroom picking. For example, Liliane, a young picker from Québec, who had recently left her nine-to-five job in the banking industry to participate in a flexible lifestyle of piecework, hiking, and snowboarding in British Columbia, described regularly running out of money and relying on her relatives to help support her aspirations financially:

CJ: And so like, that must have been quite the change, from having your regular nine-to-five office job, to like, doing all this piece work. What has that been like for you?

Liliane: Uh, it was just amazing. Yeah, yeah. I- I - I really do well with change. I like change. [Laughs] Which I hadn't known before, but yeah, I'm good with that. And I just forgot about my office work so fast. I thought about it a little bit, like in the first few months. And then after it was just like wow what did I do before?

CJ: And what was it like switching from like, regular pay to this kind of pay?

Liliane: Um, it's like, sometimes I have money, sometimes I don't have money. [Laughs] Like right now [Laughs] So yeah, sometimes it's a little bit like—I don't really spend that much money, other than on food and alcohol. Because I live in my van. And in three years, I paid rent for like five months, that's all.

CJ: So, you keep the costs low.

Liliane: Yeah, so I don't have to make that much money. But still, sometimes I'm just like, completely out.

CJ: And what do you do then?

Liliane: I ask my grandma for a loan. (Interview, June 2019)

Not all harvesters had financial support from their families, and so the stress of poor harvests began to affect their moods and motivations to stay on NSN Whut'en Territories. By this stage in the season, when harvesters like Liliane begin to be “completely out” of money, the mood at camp is, as Claire described it, “volatile”:

[T]his reminded me again of the volatility of days out here. It reflected the mood in the camp of when people brought in lots of mushrooms versus when they were low. Moods can swing with expectation and disappointment. (Field Notes, Claire Dennis, June 2019)

Pickers, especially those who are particularly precarious because of their lack of success navigating the bush, find themselves needing to re-invigorate their will to continue to enter the forest every morning. Otherwise, as Michel describes it, the conditions of camp, from the long hikes to the mosquito bites, become difficult to endure:

Uh, you know, at first, it's always, like, exciting then when the excit—when a few days kick in, you get a routine so it's not exciting anymore. Then, uh, the mosquitoes, the mosquitoes got me depressed one day. I made the most money that day, but I was depressed because I was so attacked. (Interview, Michel, June 2019)

Michel was not alone in losing excitement as the season wore on. While many other pickers often disclosed feeling apprehensive about the prospect of “roughing it” among the mosquitoes in individual conversations and interviews, they performed affective labour (Hardt & Negri, 2004) when in groups around the campfire. Distinct from their physical

labour extracting morel mushrooms, affective labour is an immaterial form of labour (Hardt, 1999) which helps harvesters collectively modify the affective atmospheres at camp, along with each other's emotional experiences of the harvest. While many harvesters individually use drugs and alcohol as ways to dull the edges of their anxieties and frustrations, pickers collectively discuss the potential of bigger, better hauls in the future to keep camp lively. Among inexperienced pickers, this often took the form of "looking on the bright side", discussing the ecology of morels as in flux (and thus likely to improve again), and describing unsuccessful days as "just a break" before "the big one" (Field Notes, June 2019). Claire and I also performed affective labour in order to raise our spirits and motivate each other for another day of picking. To ward off our growing disappointment, I would discuss how our entrepreneurial harvesting failures was an opportunity for "interesting data", and Claire would talk about how every hike in the British Columbian forest was worthwhile, morels or no morels:

We decided to pick this morning but didn't find any good spots. We're on a bit of a back foot in terms of picking as we don't have the time to scout like others. We checked a few new places but no big finds. There was a sense of disappointment, but I was happy to be outside and walking around the bush. We went all the way up the mountain and got a great view of Oscar Lake... I think days like these are to be expected when you're mushroom picking. Hamish has said previously that he went out for a whole day and found less than half a bucket. It's just part of the experience, the uncertainty. The low before the rush you get when you find a patch. For there is never an up without a down! (Field Notes, Claire Dennis, June 2019)

While young pickers produce their own atmospheres of anticipation early in the season, when their hauls are not what they expected by mid-June, "lifers", like Hamish who Claire mentioned above, are increasingly helpful when maintaining hopeful and excited moods at camp. Experienced, middle-aged pickers are much more prepared for the conditions of mushroom picking, and are more profitable in their harvesting, regularly earning at least

a few hundred dollars a day. Unlike younger, less experienced pickers, lifer harvesters do not require as much of an energetic atmosphere of anticipation around the mushroom hunt to reduce their anxieties and continue their work. Put simply, these harvesters know they are going to find morels and make money. However, lifers take the time around the camp to reminisce about morel seasons' past, sharing and bragging about hauls and encounters with wildlife in previous years. While these pickers do not necessarily need to ward off *their own* anxieties, they contribute to the re-invigoration of the camp atmosphere for others by relentlessly discussing what lies ahead: rain showers on their way to help new patches of morels to fruit, the annual solstice bush parties, along with stories of the golden mushroom of their nighttime dreams: blonde morels.

6.4.2. Don't Worry, Blondes are Coming: Golden Morel Dreams

There's such a range with the morel like, the conica, the blondes, the grey... Like I've actually not ever picked the green morel. I've never been in a place where they've popped up, so I've only seen pictures and stuff of them. And that's like, it's a goal. It's a dream to go pick the green morel. It's like a big, fat, green, hearty mushroom. And like nothing else. (Interview, Marcus, June 2019)

Not all fire morels are alike. There are several species which have adapted to wildfires, and these different kinds of mushrooms arrive in succession throughout the spring season. The mushrooms which first arrive are called "conicas": these are the mushrooms we dream of finding in the earliest days of the season, and which fruit in low-lying, swampy areas of the burnt forest. Conicas, while exciting in May, are generally considered to be the least delicious, and the most difficult to harvest, of all fire morels. Because they push through the soil before post-fire grasses, conicas are often coated in ash and so can have a gritty texture when eaten; when it rains, they tend to hold onto water, becoming what many pickers refer to as "swamp donkeys", which are then rejected by scrupulous buyers; and when left to

grow too large, conicas become flaccid and unappetizing. Along with the pickers around me, I was no longer excited about harvesting conicas by the 3rd of June, going so far as posting a grouchy-looking photo of myself picking mushrooms on social media with the caption, “*so sick of conicas tbh*” (Field Notes, June 2019). For inexperienced pickers, feelings about the morel harvest map in a broad sense onto our feelings about conicas: exciting, “yummy”, and “romantic” at first, but eventually a lot of work for a slightly disappointing reward.

It was at the end of “conica season” in the beginning of June that lifer pickers attempted to enliven the exhausted atmosphere at camp. They assured younger, disillusioned harvesters like Claire and me that the patches of our morel dreams from the beginning of the season were nothing special, and that once the rain comes and the soil warms a bit more, the best species of morels were yet to come. According to these pickers, the “better morels” are the blondes, greys, and greens, which appear in succession after the conicas whither (or become too “swampy”, depending on the weather). Each variety has different culinary and ecological characteristics and are often sorted in field stations to be shipped as distinct products to different international markets. Generally speaking, all of these varieties are firmer, larger, tastier, and nicer to harvest than early-season conicas. Some even have a strange tendency to grow multiple-walled mushrooms, morels-within-morels, which can be traded for bragging rights at the buying stations. Because of their charisma, grey, green, and (especially) blonde morels are highly anticipated by experienced pickers, who enliven frustrated harvesters with their aspirational dreams of picking these new varieties (Figure 15).



Figure 15: Blonde morels found on NSN Whut'en Territories. June 2019.

While many inexperienced pickers, including Claire and me, no longer discussed experiencing nighttime dreams of morels by mid-June, relying instead on our waking lives to motivate and guide our morel harvests, some lifer pickers continued to discuss their nighttime mushroom dreams. However, instead of dreaming of the mechanics of finding *any* morels like inexperienced pickers discussed earlier in the season, these pickers dream *specifically* of the blondes, the greys, and the greens. Jim was a young but very experienced picker who regularly talked about his dreams of big, beautiful morels over cans of cheap beer. As he described it:

But no, the blondes, they're truly amazing. Like, I dream about them. Every year, all the time, until I get here. I dream about these patches. As the season goes on, I'll get into these patches and be like wow, I'm in the patch of my dream. That's fucking amazing, actually. And it's pretty powerful. (Interview, June 2019)

In this way, experienced harvesters allow discouraged pickers to use their dreams as a way of motivating themselves to continue searching for blondes. Through work exploring

how affective labour in community forest conservation in Odisha, India contributes not only to the transformation of forests, but also of the environmental subjectivities among those involved, Neera M. Singh (2013) has demonstrated affective labour's "biopolitical potential to produce sociality, society, and subjectivity; and the seamless flow between work and life" (p. 192). However, the affective labour performed by lifers at mushroom camps demonstrates how this immaterial labour is involved in the seamless flow not only between work and life, but between work, waking life, and nighttime dreams, as well. In their attempts to produce anticipation for blondes among other harvesters, experienced pickers held onto the dreams of neoliberalism and freedom in their messages, often including comments about "responsibility" when discussing the season. As Jim continued:

It truly connects you with, if you want to become one with nature and truly live a life connected to nature, this is it. It's hard but it's happy. It's feast to famine, but if you're smart and good with your money and have a good relationship, you'll be all right. Yeah, so I don't know, it's exciting. (Interview, June 2019)

Thus, while acting to lift moods in anticipation of the golden mushrooms, many harvesters also imply that those struggling financially in the industry may have deserved their fate. This is unsurprising, given that while affective labour is often considered in the context of services, not necessarily mass commodities like morel mushrooms (Hardt, 1999), it is important to consider that wild mushroom *stories* of entrepreneurship, grit, and sustainability, are not only featured in media stories about the harvest, but in the mushroom companies' marketing and sales tactics. When I was helping a small, independent mushroom company owner sell his products at a craft fair in May 2019, customers loved looking at the images of soot-covered pickers in the field, and I found it easier to sell morels through stories of wandering burnt forests than descriptions of their taste. Thus, for morel harvesters, affective labour borne from waking and dreaming experiences served several functions: to

communally reinvigorate atmospheres of anticipation at the mushroom camp work/living space, to reproduce harvesters' energy to continue to enter the forest, and to justify the neoliberal narratives and stories attached with fire morels sold internationally and domestically—thus disciplining harvester subjects at the same time as invigorating them.

It is not just precarious harvesters which use experienced pickers' nighttime and aspirational dreams of blonde morels to maintain their hopes of post-fire opportunity. When the prices for conicas dropped to five dollars per pound, making any hopes of \$500 nearly impossible for solo or inexperienced pickers, mushrooms companies justified this price through the same language harvesters use when discussing conicas: the price was low because the mushrooms were soggy, ashy, or because the buyers were *sick of them*. As Matt, a first-time morel buyer put it when I chatted with him about mushroom prices at his station:

CJ: Yeah, and how's it feel with the price being set from above, and all that kind of stuff?

Matt: That is kind of strange to me, like I'd like a little bit more reasoning. We kind of hear a bit more because we're connected to [*Mushroom Company B*] where it's like well, the last two batches of mushrooms have been kind of worse quality, so we need to drop the price because our buyer in Europe or China are not wanting to buy these mushrooms. Or they're starting to get a little bit sick of the [conicas] so we need to wait for the blondes and the greys and the olives to come up. (Interview, June 2019)

Because of this messaging from the mushroom companies mirroring experienced harvesters' anticipation for the blondes, buyers encourage pickers to stick around the burn, even when prices are so low it is nearly impossible to make a decent wage. Harvesters are told prices will increase once more when the charismatic blondes arrive, as Taylor, Matt's daughter who had never harvested morels before described:

CJ: Do you think that [the price will] go back up?

Taylor: Um, I'm thinking it might go up to like, maybe seven [dollars per pound]-ish? Once those blondes come out. So. (Interview, June 2019)

On NSN Whut'en Territories, the arrival of blondes did not coincide with an increase in prices paid for harvesters' mushrooms; Claire and I were disappointed to see our giant and (relatively) beautiful blondes sell for \$4 a pound in mid-June. Other precarious pickers were briefly excited by the emergence of blondes and subsequently disappointed in how the arrival of these mushrooms did not fundamentally change their financial situations. Affective labour as performed by mushroom pickers is not necessarily *destined* to be captured by capital. There is always "excessive" production associated with immaterial labour which can produce alternative relations between groups of humans and more-than-humans (Foster, 2018; Hardt & Negri, 2004). There were hints of the re-invigoration of harvesters' moods leading to an alternate future for the industry, through passing comments about unionizing at a buying station, or having Indigenous nations take over as buyers (to be discussed in Chapter 7). Despite these "spores" of possibility, however, harvesters' dreams of blonde, grey, and green morels ultimately encouraged pickers to remain on the burn for longer than they otherwise would have and extract more mushrooms to produce profits for the biggest companies.

Harvesters' uses of each other's previous experiences and nighttime dreams to perform affective labour demonstrated how labour meant to reproduce aspirations of freedom can be captured within the process of "salvage accumulation" (Tsing, 2015). However, what commercial harvesters did once this labour was insufficient to maintain anticipatory affective states demonstrates how this extractive process also reproduces settler-colonial claims to land and opportunity. As pickers realized that success in the industry was a matter of skill and luck, not entrepreneurial spirit or grit, conversations and atmospheres around the campfire tent shifted toward grumpy discussions of whose patches are whose, and whether to move on

from this burn to another location. As long, hard, but often unsuccessful days picking wore on, boredom, discouragement, hangovers and hunger crept in, and inexperienced pickers became experienced enough to realize that many of their aspirational dreams, so exciting in early spring, may not be met on NSN Whut'en Territories.

6.5. Dreams of Spent Patches and Settler Claims to Transience

Coinciding with their disillusionment with the prospects of morel on NSN Whut'en Territories was another change in harvesters' nighttime dreams. By mid-June I was so exhausted from picking mushrooms during the day that I would collapse into my tent at night, and sleep "like I was dead to the world" (Field Notes, June 2019). One picker described a shift in the content of his morel dreams at this point in the season, saying, "*My dream lately is stems!*" (Field Notes, Kayden, June 2019), referring to finding patches of morels where previous pickers have harvested all the mushrooms in a patch, leaving only the remains of cut-off stems behind for future pickers to find. This section will return to questions of how harvesters' aspirational dreams of freedom relate to settler-colonial extraction by briefly exploring what harvesters do when it appears their aspirations are not being met, their nighttime dreams are of cut mushroom stems, and they perceive the productive potential of a burn site to be "finished".

A common feature of capitalist extraction on the Canadian frontier is the abandonment of lands which are no longer seen as profitable. A brief consideration of the so-called "orphaned" oil wells which dot the landscape in Alberta (Wood, 2019), or the over ten thousand abandoned mining sites across Canada without a clear owner, often located on Indigenous Territories (Canada, 2012, as cited in Beckett and Keeling, 2019a; Keeling & Sandlos, 2017) demonstrates a deep, taken-for-granted culture of extracting and "moving

on”. While there is significant work on *reclaiming* these abandoned and so-called “spent” sites, including in ways which center Indigenous justice and leadership (Beckett & Keeling, 2019b), the so-called “mining imaginary” (Robertson, 2010) persists among settlers: once places are spent, there is no need for a connection to place (for anyone other than locals, that is). Thus, just as harvesters’ aspirational dreams of freedom are borne from their settler-common-sensical claims to land and opportunity, their actions once these dreams are no longer being fulfilled on a particular Territory demonstrate their common-sense claims to the freedom to abandon sites of extraction once they are no longer serviceable.

6.5.1. Moving On, Freedom, and the Limits of Entrepreneurial Recovery

The disappearance of nighttime morel dreams and dreams of worn-out patches fed into the change in affective states and atmospheres around morel picking on NSN Whut’en Territories. Late-night parties, excited conversations about the harvest, and discussions about the next big flush dissipated as exhaustion, boredom and disappointment settled in for good this time. Instead, some of the most precarious harvesters discussed quitting the harvest and moving on to some other form of piecework labour like planting trees or picking fruit—for these pickers, aspirational dreams of “being their own boss” were replaced with a desire for a (relatively) less volatile income. Pickers like Michel and Kayden, who only weeks earlier were excitedly telling me about seeing morels behind their eyes, packed up and drove back to the city, their dreams of freedom in the “wilderness” (at least temporarily) abandoned.

For many other pickers, particularly the most experienced ones, the dissolution of atmospheres of anticipation on NSN Whut’en Territories indicated it was time to move on. They planned to go north to burn sites in the Yukon and Northwest Territories as part of the annual frontier of morel fruiting which shifts from sites in southern B.C. to northern boreal

forests as soil temperatures increase across latitudes. The decision to move on is often made abruptly: Claire and I were surprised to drive to Wayne's camp one morning, only to discover that most the young Québécois pickers we had met had left in the middle of the night to go north. They had left without saying goodbye or even cleaning up their camp properly, and left the youngest of them, Rémi, behind to fend for himself without a car, food, or much money in his pocket. The night before they left, these pickers had been discussing the "massive hauls" their contacts up north were reportedly bringing in: it seemed to them that they could continue to search for opportunity, and perhaps invigorate their mushroom dreams, by moving on to search for morels on other Indigenous Nations' recently burned lands.

Whether harvesters quit the morel harvest or moved on to other Territories, they were united by their common-sense claim to a transient form of freedom-chasing where not only were they entitled to escape their nightmares on NSN Whut'en Territories, but they were entitled to continue to chase these on *any and all* Indigenous lands. Despite their racist basis and shaky legal grounds, Canadian claims of Crown lands are deeply engrained into settlers' understanding of land tenure in British Columbia and are folded into taken-for-granted feelings of entitlement. For settler morel harvesters, countless Indigenous Nations' Territories are folded into one claim from the state, which transforms distinct Territories into forests which are only differentiated by their potentials to produce morel mushrooms. That these forests had experienced wildfire only justified their reasons to move on: after all, they understood themselves to be extracting the last of the "worth" from the burnt forest. They had done their job, and it was time to leave; just as with leaving an unprofitable mine, there was no sense in becoming attached to the landscape or disaster-affected community

(Robertson, 2010). One lifer picker described this relation very clearly, telling me, “We’re here to engage with the forest, not the community” (Interview, Moe, May 2017).

Settler commercial harvesters’ transience not only reflects the settler common-sense right to abandon lands which are no longer useful for accumulation, but also the shallow nature of harvester—and media—claims that the morel industry is a part of post-wildfire economic recovery. When harvesters left NSN Whut’en, members of Nadleh Whut’en and Stellat’en Nation were still relying on outside sources of firewood to fuel their homes, facing food insecurity from missing the previous year’s salmon run, and processing traumatic memories of the disaster (Sharp & Krebs, 2019). As members of NSN Whut’en described, a short-term injection of cash into the gas stations and liquor stores in the area did not meaningfully contribute to the recovery of the community. Instead, the influx of morel harvesters was in many ways a continuation of the disruption and ecological damage from the fires. Thus, while harvesters use their dreams and perform affective labour in order to maintain the opportunity presented by morel mushrooms, dreams of entrepreneurial disaster recovery and dreams of freedom and escape are linked through settler common-sense claims of freedom, transience, and profit on undifferentiated Indigenous lands at the expense of long-term relations and responsibility.

6.6. Conclusion

This chapter has demonstrated how settler harvesters’ aspirational dreams of entrepreneurialism and freedom draw them to the morel trail, and how attentiveness to settler harvesters’ nighttime dreams of morels can lead to a deeper understanding of the relationship between settler-colonial aspirations of freedom, anticipatory affects of extraction, affective labour, and precarious work. Specifically, I have demonstrated how nighttime dreams

intensify harvesters' excitement for the hunt, allow them to improve their harvesting skills, thus intensifying rates of extraction, and contribute to the affective labour performed by harvesters to maintain their will to work as precarious pieceworkers. Ultimately, the fruits of this affective labour are largely captured by commercial mushroom companies, who rely on and exploit pickers' anticipation of blonde, grey, and green morels with (often empty) promises of increased prices for the products of their labour. This story echoes Anna Tsing's work of matsutake mushroom harvesting in Oregon and demonstrates how affective labour fits into her theorization of "salvage accumulation" in capitalist commodity chains. However, aspirations of freedom, especially in the forests of Western Canada, cannot be disentangled from settler-colonial structures, affects, and dreams. On the mushroom trail, nighttime dreams of morel mushrooms were taken seriously as guiding visions by settler commercial harvesters, representing an exception to usual Western understandings of dreams as illusionary and separate from reality. While Indigenous understandings of dreams is part of cosmological world orders which prioritize subjectivity, relationality, and responsibility with more-than-human beings, often contributing to acts of resistance (Estes, 2019), settler dreams on the mushroom trail largely lend themselves to produce profits for an industry that relies on disasters, precarious workers, and unapproved, transient extraction on Indigenous Territories. Thus, harvesters' affective labour, performed with and through their various morel dreams, not only contributes to "salvage accumulation", as Tsing (2015) describes, but reinforces "settler common sense" (Rifkin, 2013) and settler-colonial claims to land, opportunity, and extraction.

The commercial morel harvest is not only an example of settler harvesters disproportionately capturing more-than-human post-disaster opportunity (see Chapters 4 and

5), just as harvesters' affective labour does not only maintain settlers' ability to capture opportunity in a single disaster-affected place. Instead, the commercial morel harvest, through its transience and harvesters' willingness to abandon lands in order to chase their aspirational dreams of "freedom", acts also to maintain *the extractive relations and common sense* which ultimately contribute to wildfire and other environmental disasters in Canada.

As outlined in this and earlier chapters, transient ecology of the morel harvest has historically meant it was difficult for Indigenous Nations to capture the opportunity presented by post-wildfire morel mushrooms. However, because of the ecological and social impacts of the commercial morel harvest, as well as a broader understanding of the need to directly assert their sovereignty through control of licensing and leasing on their lands (Pasternak, 2020), Indigenous Nations, including NSN Whut'en, have begun to govern the morel harvest on their Territories. The following chapter re-visits the affective atmospheres of anticipation within commercial mushroom buying camps. I aim to understand how settlers anticipate more than just mushrooms on the morel trail, but also antagonistic interactions with Indigenous Guardians of the Land aiming to regulate the industry to protect their lands, rights, and peoples. I will demonstrate how the precarious conditions experienced and the affective labour performed by harvesters described in this chapter, while being appropriated for profit by mushroom companies, *also* acted to fracture their settler common sense in relation to Indigenous governance, allowing for the possibility of harvesters "awakening" from the settler colonial "dreamworld" (Benjamin, 1999), along with compliance and solidarity with Indigenous Nations.

7. Governing Opportunity: Settler Workers’ “Common Sense” Responses to Indigenous Regulation

7.1. Introduction

I met Rodney and Jill outside the Nadleh Whut’en band office on a hot and sunny day in mid-June 2019. I was joining Rodney and Jill as they made their daily rounds driving through their Territories as Indigenous “Guardians of the Land”. Guardians like Rodney and Jill were surveying their Territories to sell Indigenous-led permits to morel pickers to assert control over what can often be an unsustainable influx of commercial harvesters in an already-fragile post-fire ecosystem and community. As I hopped into the back of his truck on that sunny day in June, Rodney turned around, looked at me, my sunburn, and my notepad, and laughed: “So, you want to watch them swear at us, eh?” (Field Notes, June 2019)

The previous three chapters have begun to outline the various impacts resulting from the influx of commercial morel harvesters following wildfires in Western Canada, including litter being left behind, racist encounters with locals, and shifts in the ethical standards of the harvest. As a result, local peoples—both Indigenous and non-Indigenous—frequently cite the need for better governance of this fly-by-night industry. Despite the harvest occurring on so-called “Crown land”, Canadian provincial and federal governments provide little information regarding the ecological and social impacts of the transient morel mushroom

harvest, and do not regulate the industry to prevent ecological or social harm. In response to the combination of the often-disruptive influx of morel harvesters and lack of oversight on behalf of provincial and federal governments, First Nations, including NSN Whut'en, have taken action to address the impacts of the mushroom industry.

The introduction of fire morel permits on NSN Whut'en and other First Nation Territories in British Columbia fits into a broader argument among Indigenous leaders, scholars, and activists of the importance of ongoing Indigenous resistance and assertions of sovereignty over their lands and resources. The direct assertion of Indigenous jurisdiction over land and resources, whether through acts of refusal (Estes, 2019; Yazzie, 2018) or direct regulations (Pasternak et al., 2019) is distinct from what Glen Coulthard (2014) refers to as recognition-based appeals to self-determination. In terms of environmental and ecological protection, recognition-based processes involve Indigenous Nations appealing to the Canadian state to have Indigenous knowledge, practices and laws included *within* regulatory processes, environmental impact assessments, and consultations. Coulthard (2014) argues that these processes, however, maintain a colonial relation in an era of Canadian “reconciliation”, where coercion and dispossession are continued “through the asymmetrical exchange of mediated forms of recognition and accommodation” (p. 15). In other words, so long as the Canadian state is in the position of recognizing Indigenous rights and knowledge with respect to ecological protection, it remains in control over land, resources, and power. As such, First Nations in British Columbia have circumvented these recognition-based regulatory processes involved in managing Crown land and resources by directly regulating the morel mushroom harvest through paid permitting schemes on their Territories.

Understanding settler responses to Indigenous economic and political authority is important for meaningful decolonial work in settler-colonial states, where “decolonization” must be centered around materially returning land and power to Indigenous peoples (Tuck & Yang, 2012). Practically, understanding what drives settler workers’ response to Indigenous jurisdiction can offer means to reduce antagonistic and violent reactions which threaten Indigenous land defenders and regulators. Across Canada, there have been many instances of settler antagonism following Indigenous assertions of jurisdiction in recent years. Whether regarding oil and gas pipelines, lobster fishing (Minke-Martin, 2020), or housing development (Ottenhof, 2021), settlers have claimed that their resistance has been borne from concerns over livelihoods or projects of “national interest” (Hall, 2018). In this chapter, I examine the precarious, under-the-table nature of the fire morel industry to interrogate settler workers’ negative responses to Indigenous jurisdiction in order to explore the affects and common sense which extend beyond and belie these justifications.

To explore settler worker responses to Indigenous authority, the chapter takes us back to the mushroom trail to re-visit the affective atmospheres of mushroom buying camps set up along Forest Service roads within burn sites in Western Canada. In the previous chapter, I discussed how anticipatory affects are produced through the mushroom season as a means of reproducing settler harvesters’ will to work and chase their dreams of freedom and escape, and how these affects are captured by capitalist mushroom companies. Here, I focus on anticipation for harvesting experiences *beyond* picking mushrooms and finding freedom, by demonstrating how buyers’ stations and camps act as mythologized trading forts which allow us to understand settler common sense (Rifkin, 2013) as a spatial phenomenon on the mushroom trail. I will outline how anticipatory affective states and atmospheres within settler

buyer camps relate not only to buckets of morels, but also to racist encounters with Indigenous people through re-enacting the myth of the trading “fort” as a “cultural ditch” separating Indigenous and settler peoples²⁶ (Donald, 2012).

The chapter takes us along to three of these buying camps and demonstrates how settlers respond to Indigenous permits differently depending on the affective atmospheres of their camps, which are themselves dependent on harvesters’ differentiated positions within the capitalist market for morels and the settler state. I examine how settler common sense is differently performed, challenged, and fractured by groups of harvesters through the unstable spatial boundaries between settler “inert”ness found within buying camps and the direct contact with Indigenous economic power associated with the introduction of mushroom permits. Through visiting these camps, we can understand where the already-existing fractures in settlers’ common-sense claims to land, resources, and post-disaster opportunity exist, as well as the means to leverage these fissures to the benefit of Indigenous Nations, forest ecologies, and the most precarious of workers, too.

7.2. Crown land, Morel Harvesting, and NSN Whut’en permits

Around 95% of land in British Columbia, including on NSN Whut’en Territories, is considered Crown land. While some hunting and gathering activities—such as fishing or collecting protected plant species—are regulated through permits or licenses on Crown land by federal and provincial governments, wild mushrooms are for the most part excluded from

²⁶ In this Canadian context, the “fort” refers to the trading forts set up as part of the fur trade, distinct from the army forts which located across the United States. While Indigenous traders were, of course, active inside trading forts, in this chapter I draw from Donald (2012)’s arguments about what the *myths* of the Canadian fur trading fort represent—namely, the separation of “the civilized from the uncivilized” (p. 100) and liberal “progress”.

these categories. As such, the Canadian wild mushroom industry remains largely unregulated by federal and provincial governments. While mushroom products sold to consumers are regulated for food safety, the quantity of mushrooms harvested, the value of the domestic and international sales, the number of workers involved in the harvest, and the social and ecological impacts of the harvest are difficult to determine. However, while these impacts are not measured by provincial and federal governments, First Nations governments have increasingly been vocal about the negative social and ecological outcomes of the morel mushroom harvest—as well as the opportunities for Indigenous governance and industrial leadership.

Permits to harvest morel mushrooms were first introduced independently by Tsilhqot'in and Secwépemc First Nations in 2018 following the 2017 Elephant Hill wildfire in British Columbia, who reported the schemes as useful to reduce the harmful impacts of the industry and as a way of “roll[ing] out UNDRIP²⁷ on the land” (Wood, 2021b). The following season, other fire affected First Nations, including NSN Whut'en, followed with their own permitting schemes to assert jurisdiction over their Territories and reduce the negative impacts of the morel harvest in their communities (Figure 16).

²⁷ UNDRIP is the acronym for the United Nations Declaration on the Rights of Indigenous Peoples, an international agreement signed in 2007 outlines the rights which “constitute the minimum standards for the survival, dignity and well-being of the indigenous peoples of the world” (U.N., 2007). Among cultural, economic, and legal rights, the declaration enshrines Indigenous peoples with the rights to self-determination, consent over development, and the management of their Territories. Canada was not a signatory of UNDRIP when the declaration was signed in 2007. While originally in opposition to UNDRIP, Canada eventually endorsed the declaration in 2016 and ratified it into Canadian law in 2021.



Figure 16: A sign on NSN Whut'en Territories in June 2019 indicating that all harvesters and buyers required a mushroom permit.

NSN Whut'en First Nations had various motivations for introducing morel mushroom permits in the 2019 season. As one Guardian of the Land told me as I rode in the back of their pick-up truck, plans for the influx of mushroom pickers began almost as soon as the fire was extinguished in the autumn of 2018. The motivations for introducing a permitting scheme included practical reasons to address the issues emerging from the morel harvest, for example, as a means of reducing the amount of litter and human waste left behind by the mushroom camps, and for security purposes in order to monitor the names and license plates of buyers and pickers in the Territories. More significantly, the permitting schemes function to help NSN Whut'en assert their jurisdiction of non-timber forest product management on their traditional Territories. Mitch, a consultant who works with First Nations governments to develop their morel permitting schemes, described that while a small number of Indigenous people in fire-affected areas participate in the morel mushroom hunt (a greater proportion participate in the harvest of other wild mushrooms), Indigenous Nations want to

be involved in the morel industry beyond as a source of cheap, flexible labour. Directly asserting jurisdiction over their traditional Territories, including on so-called Crown land, allows Indigenous Nations to regain control over the management of the ecological systems on their land and gain economic power. As Shiri Pasternak (2020) describes,

[W]ithout the authority to control the leasing, permitting, and licensing on their lands, Indigenous peoples face increasing land alienation and loss of meaningful possibility for self-determination and independence. (p. 303)

Permits for morel mushroom harvesting fit into long-term strategies for self-determination through increased sovereignty and responsibility over the First Nations' traditional Territories. As one member of NSN Whut'en staff put it, directly managing and regulating resources on their traditional Territories helps not only in the outcomes of the morel harvest, but also positions with respect to Nation-to-Nation relationships with the provincial and federal governments, as well as in ongoing government-to-government (G2G) negotiations.

The morel mushroom permit system was introduced a few weeks after the first commercial harvesters arrived on NSN Whut'en Territories in June 2019. All harvesters and mushroom buyers on NSN Whut'en Territories were asked to purchase a permit, which cost \$20 CAD for pickers and \$500 for buyers, along with registering their names and license plates with the First Nations and signing an agreement for behavioural expectations (Figure 17). The permits were distributed by Guardians of the Land, local members of NSN Whut'en Nations like Rodney and Jill who visited each mushroom buyer's camp every day throughout the harvesting season to meet pickers and buyers and sell permits. Teams of Guardians nearly always included an Elder, as well as one or two additional younger First Nations members.

Guardians were also trained in conflict resolution by the permitting consultants²⁸ in order to reduce instances of violence and increase uptake by pickers. Buyers were expected to display their permits at their buying stations, and harvesters were asked to display their permits on the dashboards of their vehicles (see Figure 17). While there were no penalties for not purchasing a permit, Guardians of the Land would repeatedly visit camps with low uptake to encourage harvesters to comply and would ask buyers and harvesters to leave their Territories if they continued to refuse permits.

In exchange for participation in the permitting scheme, NSN Whut'en Nations offered basic services to mushroom camps. To reduce the litter and human waste left behind from mushroom pickers and buyers' camps, the First Nations introduced large garbage bins at each buyer camp along with outhouses which were serviced by contractors hired by NSN Whut'en. Further, the First Nations included maps of the Territories, contact information, and search and rescue assistance for pickers harvesting on their lands.

²⁸ A B.C. based forest consulting company, led by Mitch, has provided support to several First Nations with their permitting programs, including the permit design, website development, logos for the harvest, and staff training on implementing the programs.

**NSN WHUT'EN MUSHROOM HARVEST
PERMIT APPLICATION**

OFFICE USE ONLY
Date (YYYY-MM-DD): 2019-05-27
Dakshid ID shown: ☐ Yes ☒ No
Permit End Date: One Month (30 days) from date of issue
Permit Issues:
Permit Type(s): ☒ PERMIT ☐ COST* ☐ AUTHORIZED ACTIVITY: The Permittee named is authorized to:
- Harvesters \$20 Harvest mushrooms in the NSN Whut'en Territory.
- Commercial \$500 Commercial Activities in the NSN Whut'en Territory (includes Buying Stations, Drying and Vendors).
- Dishes Free Dishes members fee is waived and all Section 35 rights permitted.
Total Amount Paid: 130.00 *Cost is waived for members of the Dakshid Communities. Must show Band Card
PERMITTEE COPY - DISPLAY ON DASH OF VEHICLE

Thank you for your co-operation. Feel free to contact us with any questions you might have regarding this program.
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NSN WHUT'EN TERRITORY MUSHROOM HARVEST PERMIT TERMS & CONDITIONS

In these Terms & Conditions the "NSN Whut'en Communities" means, collectively, the following Indian Act bands and their associated Inuit entities: Nadleh Whut'en First Nation, Shovel Lake First Nation, Nakwilt Whut'en.

In consideration of the NSN Whut'en Communities allowing the applicant (the "Permittee") listed on the NSN WHUT'EN MUSHROOM HARVEST PERMIT APPLICATION to which these Terms & Conditions are attached (the "Application") and collectively (the "Permit") permitting the Permittee (as defined below), allowing the Permittee temporary access to the Shovel Lake and Island Lake Fire Area which lies entirely in the NSN Whut'en Territory (as is shown on the Shovel Lake/ Island Lake Fire Map Package (the "Map") attached to this Permit for each purpose and other good and valuable consideration (the receipt and sufficiency of which are hereby acknowledged), the Permittee agrees as follows:

A. RELEASE, INDEMNITY AND PROMISE NOT TO SUIT
1. The Release, Indemnity and Promise Not to Sute in this section "A" apply to all Permittees regardless of whether they are authorized as a Buyer or a Harvester on the Application.
2. Permittee agrees to hold responsible for any activity authorized under this Permit (the "Activities") and RELEASES AND FOREVER DISCHARGES the NSN Whut'en Communities, Nadleh Whut'en First Nation, Shovel Lake First Nation, Nakwilt Whut'en and their respective Councils, directors, officers, employees and agents (the "Permitted Parties") from any and all liability for any loss, damage, expense, claim or injury of any nature or kind arising out of or in connection with the Activities.
3. Permittee agrees to hold the NSN Whut'en Communities, Nadleh Whut'en First Nation, Shovel Lake First Nation, Nakwilt Whut'en and their respective Councils, directors, officers, employees and agents (the "Permitted Parties") from any and all liability for any loss, damage, expense, claim or injury of any nature or kind arising out of or in connection with the Activities.
4. Permittee agrees that he/she WILL NOT TAKE OR CONTRIBUTE ANY LEGAL ACTION AGAINST ANY PERSON in respect of anything released or indemnified under this Permit that may result in a claim or proceeding against any of the Permitted Parties. If any such claim or proceeding arises, then the Permittee will DISCONTINUE OR ABANDON such claim or proceeding immediately.

B. GENERAL TERMS AND CONDITIONS
5. The General Terms and Conditions set out in this section "B" apply to all Permittees regardless of whether they are authorized as a Harvester or Commercial on the Application.
6. Permittee must obey all applicable laws and regulations, including NSN Whut'en, federal, provincial, and local laws regarding fire prevention and control, or any other matter.
7. Permittee must ensure that any campfire is safely and responsibly conducted and extinguished in accordance with the Wildlife Regulation, BC Reg 36/2005.
8. This Permit must be presented upon request from NSN Whut'en representative.
9. Permittee shall not cause any motorized vehicles to travel off existing roads that are open to the public. Permittee parking shall not block traffic or impede fire or emergency vehicles.
10. Permittee shall not damage vegetation, put nails in trees, cut live trees, or cause any other disturbance to the natural environment.
11. Permittee shall pay for or repair all damage to natural features, riparian areas, other vegetation, and roads, trails, fences, ditches, telephone lines, or other structural and natural infrastructure, resulting from the Activities.
12. The NSN Whut'en Communities reserves the right to unilaterally revoke this Permit for Permittee's non-compliance with its terms and conditions or when revocation is in the public's interest.
13. This Permit will terminate at midnight on the Permit End Date indicated on the Application (the "Permit End Date").
14. Permittee shall pack all garbage, food, etc. out of the woods and dispose refuse in approved receptacles. Permittee must store all food and bear attractants inside bear proof containers or in a secure vehicle at all times.
15. In the event of a missing person in the NSN Whut'en Territory, the Permittee must cease all harvesting and field work until the missing person has been located, in order to prevent disruption of search and rescue efforts.
16. Only those Permittees who are authorized as Commercial on the Application may buy from Harvesters and remove mushroom mushrooms from the Shovel Lake/ Island Lake Fire Area. The Permittee must use subways to extinguish cigarettes and must only dispose of extinguished cigarettes in approved receptacles.
17. Permittee shall ensure that all human waste is disposed of at least 300 feet from any stream, lake, or other body of water or any recreational site, facility and is buried at least eight (8) inches deep.
18. In the event that the Permittee discovers any archaeological material, site or anything else that may be of archaeological significance (the "Archaeological Discovery") the Permittee agrees to:
(a) take all reasonable steps and precautions to minimize the disturbance of the Archaeological Discovery; (b) take all reasonable steps to safeguard the Archaeological Discovery from damage or further disturbance; and (c) immediately notify the nearest Band Office of the NSN Whut'en Communities at the location of the Archaeological Discovery.
19. Permittee agrees to adhere to the Mushroom Harvesting Best Practices attached to this Permit.
20. This Permit is non-transferable.
21. Violations of conditions of this Permit can result in the cancellation of Permit and/or legal action.

C. COMMERCIAL TERMS AND CONDITIONS
22. The Commercial Terms and Conditions in this section "C" apply only to those Permittees who are authorized as Commercial on the Application.
23. Subject to, and in strict compliance with, this Permit, the Permittee is hereby authorized to buy from Harvesters and remove mushroom mushrooms from the Shovel Lake/ Island Lake Fire Area which lies entirely in the NSN Whut'en Territory, shown on the Map.

D. HARVESTER TERMS AND CONDITIONS
24. The Harvester Terms and Conditions in this section "D" apply only to those Permittees who are authorized as a Harvester on the Application.
25. Subject to, and in strict compliance with, this Permit, the Permittee is hereby authorized to harvest and remove mushroom mushrooms from the Shovel Lake/ Island Lake Fire Area which lies entirely in the NSN Whut'en Territory and is shown on the Map.
26. The Permittee must have a navigational tool while harvesting and conducting field work. A navigational tool is a GPS unit, or smartphone/tablet, or map and compass.
27. Harvesting and conducting field work is permitted only in the area(s) indicated on the Map.

E. CAMPING TERMS AND CONDITIONS
28. While at Campsites the Permittee shall ensure that all human waste is disposed of at least 300 feet from any stream, lake, or other body of water or any recreational site, facility, or special use permit area and is buried at least eight (8) inches deep, unless the Permittee has a self-contained toilet.
29. If the Permittee has a self-contained toilet, their contents must be properly disposed of at an approved location in accordance with applicable health standards.
30. Permittee must ensure that any campfire is safely and responsibly conducted and extinguished in accordance with the Wildlife Regulation, BC Reg 36/2005.
31. All campfires must be kept in a clean and orderly condition.
32. Permittee may camp on the NSN Whut'en Territory up to the Permit End Date and Permittee agrees to a campsite inspection at Permit End Date.

2019 Off Road Vehicles are restricted to existing roads in Shovel Lake and Island Lake Fire Area

Figure 17: The morel harvesting permit issued to me by NSN Whut'en First Nations in May 2019.

While permit sales brought in some revenue, officials from both Nadleh Whut'en and Stellat'en confirmed that the costs of implementing the scheme, including waste collection, outhouses, staffing, consultant fees to set up the regulation, and fuel to travel around their Territories to monitor buying camps, vastly exceeded the revenues received through permit sales. However, the ecological and social benefits of permitting to the surrounding forest and local community, as well as the ability to assert jurisdiction over the non-timber forest products on their Territories, were deemed worth the scheme's cost.

7.3. Spaces of Settler Common Sense: Morel Harvesting and the "Fort"

While NSN Whut'en were not the original First Nation governments to introduce permits for harvesting morel mushrooms, the 2019 harvesting season was the first time many of the commercial pickers had been asked by Indigenous people to pay to harvest the fungi. Many harvesters were, to put it lightly, not happy with this intervention in their previously

unregulated industry. Pickers and buyers were angry and worried by the prospect of needing to pay to pick morel mushrooms and claimed the First Nations were trying to “get their fingers in the pot” (Field Notes, May 2019). Certainly, the introduction of Indigenous morel permitting was experienced as an affront to many harvesters’ livelihoods. However, more significantly, their resistance to the permitting schemes was born from the affront to what Aileen Moreton-Robinson (2015) refers to as ‘[white] possessive logic’ of so-called Crown lands, where ‘white ownership of the nation [is] part of common-sense knowledge, decision making, and socially produced conventions’ (p. 81). Or, in other words, harvesters’ resistance was borne from their ‘settler common sense’ (Rifkin, 2013; 2014) or “settled expectations” (Mackey, 2014), which, as described in the previous chapter, allow them to make implicit claims to freedom, transient opportunity, and undifferentiated Indigenous lands. Harvesters rely on the policies, logics and structural conditions within the Canadian state which allow settler industries to extract mushrooms on unceded Indigenous lands through the institution of Crown land. Because these harvesters do not necessarily *aim* to participate in “the rat race” (Chapter 6), in the day-to-day experience of the commercial morel harvest, settler colonial and white possessive (Moreton-Robinson, 2015) logics are dissipated into taken-for-granted structures of feeling at the mushroom camps, where harvesters anticipate not only big hauls, freedom, and golden morels, but racist and sometimes violent encounters with local Indigenous people.

Mark Rifkin (2013) refers to spaces of settler common sense as places where “settler occupancy and jurisdiction are realized, regularized, and actively produced as if inert context in everyday articulations, interactions, practices, and sensations in which Native people(s) may or may not appear” (p. 327). On the mushroom trail, spaces of settler common sense are

not stable. Instead, settler harvesters find themselves navigating between spaces they feel are “inert”, settler-dominated, and “everyday”, and those where they are in direct contact (and conflict) with Indigenous peoples and authority. For settler harvesters, assumptions of Crown land are hegemonic (Gramsci, 1976) in that the settler state uses *persuasive* “power to frame alternatives and contain opportunities” (Clarke et al., 1975, p. 38) in order to maintain control over land, resources and opportunity. However, as the long history of Indigenous resistance in North America suggests (Estes, 2019), the relation between Indigenous Nations such as NSN Whut’en and the settler state is not one of hegemony, but rather what Ranajit Guha (1998) described in his work on colonial India as power through *dominance*, where tools of coercion are necessary to maintain control over colonized populations. NSN Whut’en’s permitting program, then, creates an unstable space in the burnt forest, where those whose relationship to the settler-state is hegemonic are confronted by those whose relationship is one better defined as coercive. The morel industry allows us to explore what happens when settler workers’ hegemonic “common sense” is threatened by Indigenous power. To understand the spaces where settler common sense is produced and subsequently destabilized on the mushroom trail, I will now demonstrate how the harvest is dependent on the reproduction of the mythologized fur trading fort (Donald, 2012; Harris, 2020) at the various mushroom buyers’ stations set up along logging roads.

7.3.1. Reproducing the “Fort” as a Civilized Inside in the “Wild West”

The Canadian West has long been mythologized as the frontier or “Wild West”, particularly in the British Columbian context (Furniss, 1999). As Patricia Limerick (1987) argues, the understanding the frontier as a process, where “wilderness” was “civilized” before the frontier moved on (p. 26), ignores the ways in which the frontier and colonialism are

ongoing and best understood in connection to the West as a specific place. Understood in the context of ongoing settler colonialism, frontier myths of progress and development have been especially persistent in the case of resource industries such as mining, oil and gas, and timber (Miller, 2004; Piper & Sandlos, 2007).

The wild mushroom industry is easily overlooked as part of these frontier and extractive colonial-capitalist processes, perhaps because of the role of wild mushroom gathering among Indigenous peoples; the role of mushroom harvesting as a hobby, sustenance, or other-than-capitalist practice (Barron, 2015, Fine, 2008); or because work exploring the commercial harvesting of one species, such as matsutake mushrooms (Tsing, 2015), can be misinterpreted by readers to represent the political economies of all mushrooms. However, unlike other “frontier” resource industries such as oil, gas, and timber, the mushroom industry exists without intervention from the Canadian state, thus remaining relatively “untamed” by regulatory processes or oversight. As a result, those who are attracted to the morel harvest are often actively *seeking* the wilderness and frontier experience, and often referred to the harvest as the “Wild West”. As Max, a forty-something settler morel buyer from Québec described it,

It’s just the way it is out here, this is the Wild West. You know, you don’t cross people out in the bush because there’s no police and there’s no safety net. And a lot of people take it that way because this is where they’re from...It’s ungoverned land. There is no one overseeing anything. This is do as you wish and as you please. Um, and it has an essence of wildness in that way...And it is wild. And I don’t mean wild in a bad sense, in the foraging aspect of it as well. There certainly is, I mean, I love the wildness of B.C...And, and it’s, it’s the wildness of the forest, the rains that come in. I mean it’s a rainforest, right? It’s amazing. But it’s wild. (Interview, June 2019)

However, despite seeking and reveling in the “wild” nature of the morel harvest, pickers need to sell their mushrooms, and as outlined in the previous chapter, often feel

lonesome, worried, or bored. So, after long days in the bush navigating the wilderness, harvesters gather to retreat, re-connect with others, and find protection from the wild(er)ness of the bush at the temporary roadside buyers' stations scattered throughout the burn. Once the season is in full swing in mid-June, buying camps become hubs for trade, side hustles, car repairs, information about the harvest, and socializing.

While some pickers choose to set up their own tents and camping set-ups in isolation, or in remote locations near "their" patches of mushrooms, many choose to live near their preferred buyer, creating several temporary camp communities which persist through the harvesting season. It is worth noting that these temporary camps, occupied primarily by settler men, are part of a larger geography of extraction and gendered colonial violence across what is now called North America (Koutouki et al., 2018). Drawing from the Secwépemc Tiny House warriors, it would be appropriate to describe the camps set up around mushroom buyers' tents as "man camps", which are "temporary base camps for men involved in construction, most often around major development projects. Sometimes called "industrial camps," [and] are populated by a mix of specialized workers and low-skilled labourers" (Pasternak et al., 2019, pp. 27-29). While Pasternak, King and Yesno (2019) describe man camps as involving construction workers, the transient and extractive nature of the morel harvest produce similar dynamics on the unceded Indigenous Territories in British Columbia. As the season unfolds and buyers' camps turn into a form of trade and social infrastructure in the landscape, however, these hubs go beyond their roles as "man camps" and reproduce many of the same functions of the fur trade's fort in the Western Canadian frontier.

Emerging from the history of fur trading posts which were constructed along Canadian river ways to facilitate the extraction of animal pelts and the settlement of the west,

forts in the Canadian context are deeply entangled with resource extraction, accumulation, and the dispossession of Indigenous peoples. As Nick Estes (2019) describes, "... river trade forts were the first 'man camps'" (p. 8), identifying the link between fur trade and fort histories to the contemporary risk and violence for Indigenous peoples associated with contemporary extractive industries such as oil, mining, and gas. Despite being part what many consider to be a "sustainable" industry, temporary mushroom camps are known, by both locals and pickers themselves, for often conflicting with local Indigenous peoples. For example, one local, non-commercial harvester I met mentioned a missing woman from the Vanderhoof area, who disappeared during a mushroom harvesting season several years prior, and as described in Chapter 4, three middle-aged Indigenous pickers from Nadleh Whut'en First Nation told me about how their cousin, an Indigenous man, had once been sent to hospital because of an interaction with morel pickers.

The mythical function of the fort in Canada extends beyond the instances of corporeal violence experienced by Indigenous people, especially women, near historical and contemporary man camps. As Dwayne Donald (2012) describes:

The fort is a mythic symbol in Canada of high historical status that recapitulates the perceived civilizational frontier—a kind of cultural ditch—separating Aboriginal from Canadian. (p. 93)

For fur traders on the frontier, "traders felt safe in these outposts of commercial capital in an Indigenous world" (Harris, 2020). Together, we can understand mushroom buyers' camps as offering settler harvesters more than material perks and company for mushroom pickers—these "forts" allow settler pickers and buyers to create a distinct form of physical and social infrastructure which separate them from the Indigenous Nations and

“wild(er)ness” which surrounds them. It is in these “safe” and “inert” spaces that settler common sense is reproduced on the morel mushroom trail.

Despite their functions as man camps and forts, not all morel buying camps are alike in character and atmosphere. On NSN Whut'en Territories, each camp attracted a different group of harvesters—there were camps full of experienced, professional pickers in their mid-forties and fifties who went to sleep at sunset; partying camps like the “scratchy pit”, where twenty-something pickers from British Columbia and Québec hosted bush parties and nursed their hangovers; dry camps, where campers were not allowed to drink alcohol; competitive camps, where pickers would compete with each other to harvest the most mushrooms or cover the most ground; and others. The previous chapter outlined how assemblages of harvesters at these camps also produced affective atmospheres (Anderson, 2014), which intensified anticipatory affects and dreams to motivate harvesters to continue picking. Here, I will demonstrate how these affective atmospheres were differentiated between camps depending on the types of harvesters which populated them and examine how each developed unique settler logics and modes of resistance to the permitting scheme.

While resistance to Indigenous permits was widespread among settler pickers, it wasn't universally held or expressed and faltered over the course of the picking season. Despite initial reluctance to purchase permits, uptake was relatively high: by the end of June, when most of the pickers we met moved on to another burn site, over 200 pickers had purchased permits. NSN Whut'en had also issued twelve buyer permits across the Shovel Lake fire. This uptake was uneven, however, with some camps' harvesters agreeing to purchase permits sooner than others. In the sections that follow, I outline the reasons for this unevenness. I describe how settler workers' common sense is produced and enacted through

affective atmospheres in various buyers' camps and subsequently challenged through the introduction of permits. While Claire and I spent time visiting over a dozen buyers' stations across NSN Whut'en Territories, some camps were notable in their popularity with pickers, influence over the broader harvest, and the atmospheres they produced. I will take you to visit three of these camps, run by Wayne, Johannes, and Ronnie. In these visits, I will explore each camp's specific form of settler common sense, and, in turn, how experiences of precarity in a capitalist industry, ambivalence to the Canadian state, and active Indigenous involvement in the industry worked to fracture settler resistance to Indigenous authority throughout the morel harvesting season.

7.4. Wayne's Station: Precarity and Protection in the Wild West

Claire and I were afraid we had picked a bad burn when we arrived on NSN Whut'en Territories in late May. We drove along logging roads for hours and saw hundreds of hectares of burnt forest, but no mushrooms, and no mushroom pickers. That is, until we drove by an RV with a tent set up along the forest service road, with a middle-aged settler man sitting in a lawn chair in the sun. We pulled up to the tent, and the man yelled, "You here for mushrooms?!".

This buying station was run by Wayne and his wife Sharon, both middle-aged settlers who had participated in the mushroom industry for several years, though mostly picking and buying pine and chanterelles. They were contracted with the largest of the mushroom companies and were the first buyers set up on NSN Whut'en Territories. The company boss determined their spot. As Wayne put it,

We went and looked at some other spots up on the road. [My boss] liked this spot and I liked this spot and because ...the beginning of the road is right there, and it winds

out so people on the other road can come here quickly and there's lots... we didn't see a lot of... this is good right here. This is going to turn into a little tent city right here. (Interview, May 2019)

And, as he predicted, the tents came.

Wayne's camp, perhaps because of the obvious location and early set-up, attracted several commercial pickers who were not very experienced harvesting morel mushrooms. While more seasoned pickers would stop by to visit or sell their early-season harvests, the harvesters who spent the most time with Wayne were young adult men. Most were in their 20s or early 30s and had less than three years' experience picking morels. When I talked to these young harvesters, the majority of whom were from Québec, British Columbia, and Alberta, they discussed how they came to pick morels for the adventure, and to make some easy money between other temporary and precarious gig jobs, like driving Uber, working in restaurants, tree planting, or panning for gold²⁹. These young, inexperienced pickers were on the mushroom trail for socializing and experience as much as they were for money, as Matt, a twenty-something man from British Columbia told me:

There were a couple days there where I was like, oh man I'm not making anything and then I looked out, and I was like, you know what, I'm in the wild, I'm having fun with my friends. You've just got to take it as it comes. (Interview, May 2019)

As Philippe and Anne-Marie, young pickers from Québec, explained, going to spend time in nature in British Columbia was a common activity among young people in Québec. As discussed in Chapter 6, their settler common sense meant that their rights to work, leisure,

²⁹ While many scholars consider the "gig economy" to consist of labour markets centered around digital platforms (Woodcock & Graham, 2019; Duggan et al., 2021), there are clear overlaps between the experiences of morel harvesters and those involved in different forms of contingent and temporary employment. As outlined, many morel harvesters operate between various forms of precarious employment, through mushroom picking, temporary seasonal contracts such as tree planting, and more "conventional" gig work like delivery driving.

and adventure on Crown lands was taken as a given, and no pickers questioned their inherent rights to harvest morels on NSN Whut'en Territories³⁰. Thus, for these pickers, spending time in a mushroom camp was a good way of providing an opportunity to meet new people, as well as provide some safety from the rough aspects of the wilderness on NSN Whut'en Territories which worried many of the newer campers (bear encounters were a particularly common fear).

As explained in the previous chapter, the conversations around the campfire in the first few weeks of the season are excitable and in anticipation of the morel season. Young and inexperienced pickers, many of whom in individual conversations and interviews often disclosed feeling apprehensive about the prospect of “roughing it”, performed affective labour (Hardt, 1999) through these conversations, to build an excited collective atmosphere which helped them ward off their feelings of uncertainty and wariness of the “wild” risks associated with the morel harvest. While excited to meet others, harvest mushrooms, and “explore” the “wilderness”, these pickers were worried about the possible dangers of living in the bush. Having Wayne and his family nearby at their buying station in case they needed something to drink, some advice, or help with their vehicles, also helped these pickers ward off their anxieties.

³⁰ It is important to note that settler harvesters made the distinction between NSN Whut'en's reservation lands and Crown land, the former on which they were careful not to trespass, and latter which they claimed was open for their use without consent.

7.4.1. *Fantasizing the Fort as Surrounded*

In those first few excited weeks on the mushroom trail, campfire talks shifted from mushroom picking and morel dreams to rumors of an impending First Nations permitting scheme. As the buyer, Wayne influenced the opinions of the young pickers, as well the affective atmosphere around his station. He and many of the young pickers set up at his camp perceived the permitting scheme as an affront to their temporary community and spoke as through their fort was “surrounded” (Parenti, 1992, in Harney & Moten 2013, p.17). Wayne fantasized about modes of engagement with Indigenous peoples common in the fur traders’ forts, where:

[Traders’] characteristic mode of social control was to instill fear—of their physical power, of quick corporal or capital punishment for any offences against their personnel or property, or that, if provoked, they would close a post (Harris, 2020, p. 271).

Not only was Wayne aiming to gain the trust, company, and business from pickers through offering free coffee and pop, he was aiming to gain their trust as someone who would protect them from being “ripped off” by the “native” outsiders asking for permits. Put simply, Wayne was ready for conflict in order to protect his rights to maintain his fort, and so many others around him were ready to fight, too. Wayne specifically spoke often about how he was unwilling to pay for permits because it was “Crown land”, and that he was willing to “chase away” Indigenous Guardians from his buying station if asked to pay. While Wayne’s attitude was exceptional in its open racism and appeals to violence, Keefer (2010) demonstrates that important settler figures who are antagonistic towards Indigenous jurisdiction can encourage actions from their followers that represent a material threat to Indigenous land defenders. At

the mushroom camp, when Wayne spoke about his feelings to most of the pickers selling morels in his tent, conversations about the First Nations permits often became heated.

During these group conversations, Wayne and the young pickers would produce an atmosphere of anticipation that was distinct from the ones looking forward to hauls of morel mushrooms. Wayne and the harvesters at his camp excitedly fantasized about the coming interactions with Indigenous locals, and about how they would tell Guardians to “fuck off”, call the RCMP, or, in Wayne’s case, threaten the First Nations with the rifle he kept in his RV. As I wrote in my field journal one day in mid-May, “... the mood in the air when they discuss this stuff is like a frenzy” (Field Notes, May 2019). And challenging these ideas, even as a settler, began to reveal the intensity with which this atmosphere enabled pickers to reject the ideas of Indigenous authority: when I interjected in these conversations, commenting on NSN Whut’en’s rights to their Territories or about the services associated with the permits, I was argued with, laughed at, and even told to shut up. Some conversations with Wayne became intense, and I began to worry at night about what would happen when NSN Whut’en introduced their permitting scheme.

7.4.2. Questioning the Fort: Precarious Work and Indigenous Guardians

The mushroom season picked up in early June, around the time NSN Whut’en Guardians began their rounds to sell permits, and the harvesters around Wayne’s buying station spent more and more time in the bush picking morels. However, as described in the previous chapter, for many of the young pickers, these days spent picking are not very profitable and many experience significant financial stress, worry, and hunger. During these times, mushroom buyers like Wayne, while offering some basic beverages, snacks, advice, and the occasional meal, are not as protective for their pickers as the harvesters are led to

believe in the early days of the harvest. As it turns out, it is not the “natives” nor the bears that are dangerous on the mushroom trail, but rather the conditions of precarious, unregulated piece work.

Around this time, Wayne’s authority as the leader of the station was undermined by his mushroom company boss demanding he purchase a permit and paying for it on Wayne’s behalf, in order to “avoid the media coverage” they imagined would be associated with refusing the Nations. In response to this, the electric, fighting atmosphere was dampened and the young pickers no longer felt as though they needed to uphold such black-and-white understandings of the permits. As Antoine, an 18-year-old from Québec put it, “[Wayne] has a permit so I don’t know why we say no” (Field Notes, June 2019).

Because of these experiences of worry, hunger, and disenchantment with buyers like Wayne over the course of the season, many pickers who are newer to morel mushroom picking changed their minds about the permits, and about the role of Indigenous Nations in the morel industry. Rémi, a young Québécois harvester, described how, despite that many buyers attempted to reproduce the offerings of a “fort”, namely services, guidance, company and protection in exchange for their mushrooms, local Indigenous Nations and Guardians were more likely to support pickers in the bush. From offering free maps of their Territories in information packs, to letting stranded pickers hitch a ride in Nadleh Whut’en’s permitting trucks, to offering search and rescue support, these Nations consistently supported the harvesters who visit their Territories. Over the course of the morel season, settler pickers began to notice the differences between the mythologized “natives” spoken about at buyers’ camps like Wayne’s, and the ones providing washroom facilities and hints about access to the landscape every day. Rémi frequented Wayne’s camp at the beginning of the season but

shifted towards a tentative appreciation towards the First Nations Guardians by mid-summer. As Claire wrote in her field diary the morning after we had attended a bush party with the young pickers in the area:

Rémi spoke of his like for the First Nations which seemed to go against something he had said before. He had appreciated the toilets and had time to speak to the permittees and claimed that they had their back. Everyone else in the fire was out to get each other but the First Nations are taking care of us. They're the only ones that care. (Field Notes, Claire Dennis, June 2019)

Because of NSN Whut'en's services and care, most young pickers like Rémi, Antoine, Phillipe and Anne-Marie disengaged from the frenzied atmospheres at camps like Wayne's and purchased harvesting permits. These young, precarious pickers, because of their disenchantment with the working conditions and pay in the morel industry, came to view regulation and additional services as a welcome and necessary addition to the harvest, at least on NSN Whut'en Territories. More experienced and skilled harvesters, however, were not so easily convinced.

7.5. Johannes' Station: State Ambivalence and Pragmatic Permit Acceptance

It took us a while to find Johannes' Station, which was, even in morel-harvesting terms, off the beaten path. This buying station was not necessarily meant to attract the masses nor new pickers who would be more likely to bring low-quality or "baby" morels to the tent. Instead, Johannes, a sixty-something year old German settler who had immigrated several decades prior, ran a camp which was populated by long-time, professional morel harvesters. Johannes himself was a long-time buyer with over twenty years' experience in the industry, and, unlike Wayne, was quiet and, at least at first, less willing to discuss his feelings about the industry with Claire and me. Nevertheless, he welcomed us around the campfire at his

camp, and encouraged us to sell our best morels to him when we stopped by nearly every evening.

Unlike the young, precarious harvesters at Wayne's camp, experienced, middle-aged pickers like Doug, Hamish, and Paul, while recognizing that the mushroom industry was unfair in its structure, do not see the ruthlessness of the capitalist industry as a barrier to their success. As a result, the services and care provided by NSN Whut'en Guardians are, while nice to use, seen as unnecessary for those who were "serious" about picking mushrooms. Claire and I enjoyed spending time at this camp, because the atmosphere around the (very small and contained) campfire was much more relaxed, and the pickers were much more willing to share their knowledge about morel harvesting with us. Unlike the young pickers at Wayne's camp, experienced harvesters do not rely on affective labour to maintain an atmosphere of anticipation around the mushroom hunt and keep their spirits up. For these pickers, more than even the young adventurous harvesters at Wayne's camp, the right to freely harvest morels on NSN Whut'en lands is treated as an unspoken, obvious fact. They quietly and professionally get on with their work, as through their rights to harvest were the same as their rights to clock in at any other workplace.

This quiet assuredness about their inherent right to harvest morels means that, generally speaking, experienced, long-time pickers are more annoyed and resistant to the idea of Indigenous permitting than younger and less experienced ones. Max, an experienced but younger buyer down the road described the folks that spent time at Johannes' camp:

And because it's been unregulated for so many years, some of the older buyers that have been in the industry for a long, long time, and they're good at what they do, um, they they're not going to change with the time. It's simply where they are in their head. (Interview, June 2019)

Despite the subdued nature of Johannes' camp, and a few exceptions who purchased permits straight away because "it was only twenty bucks", this group of harvesters was generally the most difficult for permitters to work with. While they are not as openly violent and threatening in their conversations about the permits, nor as confrontational as some of the more heated pickers from Wayne's camp, many repeatedly refused to purchase permits. Some pickers moved from camp to camp to avoid crossing paths with the Guardians, while others simply walked away from the permitters when they are approached. When their common sense is challenged, these pickers draw upon many of the same myths as those from Wayne's camp: instinctively referring to "Crown land" and claiming that the RCMP has ultimate authority on NSN Whut'en Territories, As Mackey (2014) outlines, calling upon settler "jurisdictional imaginaries" (p. 246) to reinforce common-sense claims to land is not unique to the mushroom trail. Unlike at Wayne's' camp, where the atmosphere was one in anticipation of an altercation with the Guardians of the Land in order to defend the "fort", many experienced pickers, once their claims about Crown land were dismissed by the permitters, instead had the instinct to move, shift, and evade regulation.

7.5.1. Avoiding the State: Pragmatic Acceptance of Indigenous Authority

While experienced settler pickers relied on the myth of Crown land to justify their presence on the land and referred to the RCMP to confirm their understanding of the law, most of the professional commercial harvesters at Johannes' station were, in fact, very skeptical of the Canadian state itself. For many, the biggest draw of the morel harvest is the freedom from taxation or government oversight. These pickers were often skilled in other trades, like roofing, tree planting, or general labour, but chose to participate in the morel

harvest every year to be “free” and avoid “the man” and work camps at oil and gas plants which one picker described as “more like prison camps” (Interview, Doug, June 2019).

The evasive behaviour of experienced harvesters to Guardians of the Land echoes Tsing’s (2015) accounts of matsutake harvesters’ responses to federal permits for mushroom harvesting in Oregon, United States. Because of differences in land jurisdiction in the United States, however, matsutake harvesters cannot call upon “Crown land” to justify their unmitigated presence on the land, and harvesting permits are imposed by the state, not Indigenous Nations. As Tsing (2015) puts it, white pickers are “aggravated by federal property and do their best to thwart restrictions on using it” (p. 78) and appeared to adopt similar strategies to avoid permits as the harvesters I met in NSN Whut’en Territories. However, while white/settler resistance to permits exists in both contexts, the inherent skepticism of freedom-seeking mushroom pickers towards the state created the possibility for an alternative outcome of permitting among experienced harvesters on NSN Whut’en Territories, precisely *because* the Nations were circumventing settler-colonial regulatory processes and systems.

On NSN Whut’en Territories, many experienced pickers continued to quietly resist the permits and undermine the First Nations’ authority when not directly faced with a Guardian of the Land into mid-June. However, despite their tepid response to the services provided by the First Nations and their ongoing skepticism of First Nations’ legal tenure over their Territories, there were tentative inroads among this group of professional pickers throughout the season. That is, while these pickers are the quickest to discuss Crown land and their rights to harvest when undermining NSN Whut’en’s authority, some come to view the introduction of these regulations pragmatically. As they see it, it is better to be regulated

by First Nations than the Canadian government, and it is better just to pay \$20 than to have conflict and possible attention from the state. As Brent, a settler from British Columbia who had been picking since the 1990s put it,

It's not that I believe it's their land or anything. I believe that you're here a short time, it's your land, it's my land, and you do what you can with it for the short time that you're here. But they believe it's their fricken land, and you've got to pay \$100 (*sic*) to pick them. Right? Whatever. (Interview, June 2019)

Further, many of the kinds of harvesters which spent time at Johannes' tent are also actively avoiding government surveillance on their income-generating activities, as they receive employment insurance or disability benefits which, while insufficient for them to survive, would stop if they reported additional sources of income. As the season progressed and pickers realized that Guardians of the Land and Indigenous Nations are not interested in reporting the harvesters' earnings or whereabouts to the provincial and federal government, they were more open to the permitting program. Settlers preferring locally relevant and non-bureaucratic approaches from Indigenous Nations managing their lands can also be found beyond the mushroom trail. For example, a settler farm owner in Oregon who worked with the Umatilla Tribes in their salmon fisheries protection programs, described this experience aptly: "...working with the Umatilla Tribes was 'a lot better than working with the government, I'll tell you that'" (Grossman, 2017, p. 82). Once these experienced pickers were (at least temporarily) assured that their relationship to Indigenous governments will be distinct and different in nature from their relationship with the Canadian state (or the relationship between American matsutake harvesters and US federal permit policies), their impulse to evade the Guardians of the Land was diminished.

Generally speaking, settler pickers viewed Indigenous governance more favorably than the potential for provincial or federal governance; they became more accepting of the mushroom permitting program because they understood that First Nations permits make provincial regulation less likely in the future. That is, harvesters are more concerned about the uncertainty of their ability to harvest mushrooms without state interference than their uncertainty about Canada's legal claims to Indigenous lands—a possibly generative divergence from Eva Mackey (2014, 2016)'s discussions about settlers' responses to Indigenous title.

While not a permanent acceptance of Indigenous authority, harvesters' pragmatic approach to the permitting scheme is enough to, at least in the short term, override settler their common-sense claims to Indigenous lands and resources and reduce tension on the mushroom trail. Further, while the relationships between settler harvesters and Indigenous permitting Nations along the mushroom trail are still in formation, anti-government "oppositional alliances from below" (Grossman 2017, p. 169) between settlers and Indigenous Nations have helped create productive relationships between these groups in other North American contexts. For example, Grossman (2017) discusses the complex relationships and alliances formed between settlers and Western Shoshone Nation as they opposed U.S. military operations on their land. However, as Grossman (2017) discusses, merely having a common purpose of opposition to state activity is not enough to overcome settlers' racist opposition to Indigenous sovereignty. That is, in order to improve the outcome of the permitting program, and further fissure settlers' attachments to their common-sense claims to land and opportunity, unspoken assumptions about land tenure and rights need to be challenged: a scene which Claire and I found at Ronnie's buying station.

7.6. Ronnie's Station: "Lazy Native" Myths and Indigenous Economic Power

Many of the other buyers' tents we visited throughout the harvesting season were similar to Wayne's and Johannes': combinations of young pickers and old-timers, with various atmospheres of entitlement, excitement, and uneven conflict when asked to purchase harvesting permits. When we came across Ronnie's station, however, the atmosphere was immediately distinct, as the buying camp was run by an Indigenous man from Nak'azdli Whut'en First Nation.

Donald (2012) explains how Fort imaginaries involve uncivilized "Indians" outside, where "inside [the fort] was a more industrious place where Other people laboured in the interests of civilizing a country and building a nation." (pp. 93-94). For the most part, Indigenous peoples are relied upon largely in passing for their labour in the morel industry and excluded from camp communities; this reflects the pattern Coulthard (2014) outlines with respect to settler-colonial industry and Indigenous labour, where "colonial-capitalist development require[s] first and foremost *land*, and only secondarily the surplus value afforded by cheap, Indigenous labour" (p. 12). When Indigenous locals came to sell their small amounts of morels harvested to buyers like Wayne and Johannes, morels were quickly purchased, often critiqued or devalued, and the pickers sent on their way. Ronnie's buying station upended this dynamic. Ronnie has been part of the mushroom-buying industry for decades and was contracted with one of the largest mushroom companies. His approach to attracting commercial pickers was very similar to other buyers. However, when working with local pickers, particularly Indigenous locals, Ronnie takes a different approach than many buyers. Most buyers, like Wayne and Johannes, usually offer instructions only at the buying table and do not engage with Indigenous local people beyond purchasing their

mushrooms and sending them on their way. Instead, Ronnie told me that he regularly arrives early in the season and spends a few days teaching locals, including Indigenous pickers, about how to find and harvest morels:

I try to get the locals out first... I use, I go into the newspapers and stuff, and I talk. And I put ads and say looking for pickers and stuff and if you want to learn how to pick, contact me and we'll have a little seminar... With the reserves, yeah... The locals come out. That young couple there, they come out and you know that's when I first met them and stuff. (Interview, June 2019)

As a result of this early engagement with locals, as well as likely the desire among local Indigenous pickers to support an Indigenous buyer, Ronnie's tent was distinct in the early days of the season in that many people who spent time there were Indigenous pickers from the local area. As a result, Ronnie's camp was gossiped about extensively throughout most of the settler camps, and treated as a threat to buyers' incomes and, sometimes, harvesters' safety. For example, when Ronnie first opened on NSN Whut'en Territories in 2019, settler buyers (and the pickers who associated with these buyers' camps) spread rumors about him improperly weighing scales, selling illegal drugs, and hosting "dangerous", "dishonourable" people in his camp (Field Notes, May 2019). While any mushroom camp draws a heterogeneous group of characters, when Claire and I visited Ronnie's camp, we quickly understood "dangerous" to be the other buyers' shorthand for "not one of us". The folks spending time at Ronnie's camp were outsiders to the rest of the camp communities we visited. They included a mixture of Indigenous and settler locals who were not part of the mushroom-picking circuit and thus not taken seriously among most commercial pickers; extremely introverted "lone wolves"; and a few long-time pickers who were, for one reason or another, out of favour with the rest of the community.

However, despite the rumors, Ronnie was among the most successful buyers across NSN Whut'en Territories. Some evenings, he bought twice as many mushrooms as the other buyers we met, with hundreds of baskets filled to the brim with fresh morels piled underneath his tents. Ronnie believed that other buyers "talked shit" about him because he out-competed them in the mushroom trade. Settlers feeling threatened by Indigenous people successfully participating in settler-dominated resource industries is not a novel occurrence. For example, during the settlement of the prairies, Indigenous peoples who were successful at agriculture, and therefore threatening for settler farmers, were excluded from the market through government policy (Carter, 1993), and contemporary Indigenous economic success in the gaming industry is also interpreted as "inauthentic" by settlers (Cattelino, 2008). Whether farmers appealing to the government or mushroom buyers spreading rumours, settler workers often close ranks when threatened by Indigenous economic power. It makes sense, then, that these fort and frontier logics are extended to Indigenous Nations issuing permits as well, where settler (and one young Indigenous) harvesters claim that NSN Whut'en charge fees for permits in order to "make a buck":

"It's on Crown land, it's in like B.C. And if you bring the cops out, if you bring the cops out and they don't say we have to pay a permit, sure. But this is Crown land and you're just doing this for a big, it's a big money grab. These First Nations people want to make a buck, sweet, we're going to charge permits. You guys are jokes. Like go and find work. You're lazy. That's why. (Interview, Jim, June 2019)

However, unlike the protected fort-like nature of buying stations like Wayne's and Johannes', where atmospheres of settler common sense could emerge in the form of inherent claims to adventure, work, and leisure on Indigenous lands, Ronnie's station disallowed these structures of feeling from emerging in the same way. Once seated at the table with Ronnie and other local and non-local Indigenous pickers, settler harvesters were confronted with

their understandings of land tenure, extraction, and the forest regularly and directly. Ronnie, who despite coming from Nak'azdli Whut'en was charged a permit due to his employment with a Vancouver-based mushroom company, was open about his disdain for white pickers who resisted paying for permits to harvest mushrooms. At Johannes' camp, some settler professional pickers repeated claims about Crown land to justify their resistance to Indigenous jurisdiction, and, because there were no (openly identifying) Indigenous pickers or buyers regularly spending time at the camp, interventions opposing these ideas were rare around the campfire. However, at Ronnie's camp, because of Ronnie's outgoing nature, as well as the heterogeneous mix of settler and Indigenous commercial participants and locals, their "settled expectations" (Mackey, 2014, p. 242) of access to Crown land were actively discussed, disputed, and debated around Ronnie's tent. And, for Indigenous pickers and buyers like Ronnie, it was personal:

[White pickers say] it's all government land, even the RCMP, a picker told me, the RCMP said we don't have to pay, this is all Crown land. And I says, this is all their Territory. *My Territory...* And they say, oh, it's Crown land, we don't have to pay. Yeah, you do. I says, just respect to the bands and stuff that have this Territory. And that's what I say, and I told the companies too. (Interview, June 2019)

And Ronnie was not the only long-time Indigenous morel picker who took issue with settlers' refusals to buy permits. As Hamish put it,

Because you're on someone's land. And it's Native land. I'm native as well, half native. So, I think that yeah, whatever, show some respect. If you're going to go out there and make money, you're going to be there for a month making five thousand possibly, what's fifty dollars to be picking on someone's land? Show some respect, buy the permit. (Interview, June 2019)

Unlike at Wayne's and Johannes' tents, where settler colonialism was considered a past event by pickers, at Ronnie's tent, the mushroom industry was explicitly related to histories of reservations, dispossession, and oppression:

I think it's, you know, because the way the government structured the Natives years ago. And put all the Natives on the reservations and that, you know, that's been a lot of hardship for the Natives, put on the reserves and stuff... It's the rules and regulations, a lot of whites do not understand or do not want to understand why the Natives are up in arms for shit over a hundred years ago over all this shit, the regulations and shit... So, this Crown land, it's their Territory. They can hunt, they can fish in it any time. And there are a lot of whites up in arms over that. It's the same thing in the mushroom business. It is. (Interview, June 2019)

However, while at camps like Wayne's, which had affective atmospheres which encouraged heated, angry responses to discussions of these histories and issues, most interactions about permits, Indigenous Territories and histories were discussed with a laugh at Ronnie's camp. The quiet, evasive instincts of pickers like those at Johannes' camps are also challenged in this mixed atmosphere: put simply, it is difficult to walk away from a permitter from NSN Whut'en in front of the Nak'azdli man who pays you for your mushrooms. While all morel camps are full of sometimes strange, "outsider" characters, the dynamics at Ronnie's buying station suggests that camps run and frequented by Indigenous people do not develop atmospheres of settler common sense in the same ways as camps dominated by settler pickers. Settler responses to the challenge of Indigenous (and federal, as Tsing (2015) suggests) permits—the instincts to fight and the instincts to evade—are diminished when Indigenous economic power is found both inside and outside the mushroom buying "fort".

Visiting Ronnie's station demonstrates that, to a certain extent, the identity of mushroom buyers matters when it comes to diffusing settler antagonism at mushroom camps, and Indigenous authority *within* the industry increases support for the Indigenous authorities which aim to regulate the harvest. For example, local Indigenous harvesters suggested they were more comfortable at Ronnie's Indigenous-run camp, and the heterogeneous atmosphere helped to challenge settlers' common-sense claims and resistance to permits. However, some

of Ronnie's best practices, such as actively engaging with First Nations to help local members learn to harvest morels, and openly supporting the permitting program, could be adopted within the industry to help increase acceptance of permitting programs, regardless of the identity of the buyer.

Ronnie was happy to continue working with the Vancouver-based, settler-owned mushroom company in future seasons. However, tracing the effects of an Indigenous-run buying station in the affects and behaviours among settlers in the morel industry provides insight into the possibilities which would emerge from Indigenous involvement on a larger scale. Some Guardians and locals throughout the season mentioned early plans for greater involvement in the morel harvest, where First Nations would not only regulate, but participate in the industry as buyers. This, they argued, would allow First Nations to earn additional income for the band, as well as offer higher prices for mushrooms to help the most precarious of harvesters.

7.7. Conclusion

As the season wore on, most pickers and buyers purchased NSN Whut'en morel harvesting permits from Guardians of the Land like Rodney and Jill. Pickers also benefitted from the resources made available to them through the First Nations' scheme, including the garbage and washroom facilities and maps of the Territories, along with information about Crown land and UNDRIP included in their permit packages and the opportunity to chat with locals. The practical interventions included in NSN Whut'en's permitting scheme not only helped reduce the ecological and social impacts of the morel harvest in 2019, where the First Nations managed to divert hundreds of pounds of litter and human waste and avoid violent conflicts. The services and strategies NSN Whut'en utilized expanded the already-existing

fissures within settler worker's attachments to their "common sense": their experiences as precarious workers in a capitalist, extractive industry, and their experiences of feeling simultaneously left behind and surveilled by the Canadian state. As Moreton-Robinson (2015) writes,

[N]ot all citizens benefit from or exercise patriarchal white sovereignty equally. Race, class, gender, sexuality, and able-bodiedness are markers that circumscribe the performance of patriarchal white sovereignty by citizens within [settler] society. (p. 81)

The fissures in settler harvesters' common sense at Wayne's, Johannes' and Ronnie's camps emerged from realizing that they were, in fact, not able to access all that they expected from the common-sensical and white-possessive promises of Crown land and settler society. It is not Indigenous Nations' responsibility to resolve the fissures which settler workers experience. However, I hope to have demonstrated that 'actually existing' settler common sense relates to both antagonism towards *and* adherence to Indigenous jurisdiction. Identifying and leveraging fissures in this common sense opens possibilities for broader, longer-lasting transformations across the mushroom industry and beyond.

As Indigenous Nations consider further involvement in the industry, experiences from Ronnie's station also demonstrate how unsettling the boundaries of settler spaces of "inertness" and common sense can also help not only with adherence to permits, but the dissolution of taken-for-granted structures of feeling that lead to antagonism towards Indigenous power. Further, as First Nations increasingly assert their rights to control resources on their Territories in settler-states like Canada, settlers will inevitably fall under this jurisdiction. Indigenous-settler alliances and solidarity involve questioning claims to place and belonging (Grossman, 2017) and unmaking of settler assumptions, pedagogies, and

common sense (Hiller, 2016; Mackey, 2016), even among ‘environmentalists’ (Curnow & Helferty, 2018). Understanding what motivates settler workers’ reactionary responses to Indigenous jurisdiction allows us to identify where possibilities lie to change course, both within industries like morel harvesting, and as part of a broader objective to return land to Indigenous peoples. These lessons, then, can be helpful in understanding contexts beyond the post-wildfire mushroom harvest, including in other resource industries, including those that are not deemed as “sustainable” as wild food harvesting.

Precarious workers’ struggles have already been identified as key in developing working-class environmentalism in a transnational context (Barca, 2014). Beyond this, for workers in resource industries like the morel harvest, discontents with precarious conditions can be addressed not only through labour activism and “just transitions” but, perhaps surprisingly for the workers themselves, through assertions of Indigenous jurisdiction. Visits to Wayne, Johannes, and Ronnie’s mushroom-buying camps show us pathways for settler workers to accept regulation by Indigenous Nations, particularly when Indigenous power is present both around and within the industry. These examples of pragmatic acceptance and tentative solidarity demonstrate the ways Indigenous power is entangled with environmental and resource worker justice, underlining the importance that Indigenous Nations are supported in their work to leverage the already-existing fractures in settler common sense and resistance to Indigenous authority on their lands and Territories.

This chapter has demonstrated how Indigenous Nations have responded to the influx of commercial morel harvesters following wildfire disasters in Western Canada, filled the governance gap left from Canadian federal and provincial governments, and improved the social and ecological outcomes of the harvest. Beyond this, however, Indigenous permitting

efforts have also transformed many of the settler-colonial relations between wildfire and fungal ecologies, land, and opportunity presented in earlier chapters. The historic “status quo” of the post-wildfire morel mushroom industry has involved primarily commercial settler harvesters capturing the opportunity presented by flushes of mushrooms, transforming the ethical standards of wild food harvesting in their wake, and leaving wildfire-affected Indigenous and settler communities to compete for access to mushrooms, marginally “benefit” from the business of pickers in their area and clean up after the industry has packed up and moved on. NSN Whut’én and other Nations directly asserting jurisdiction over morel mushrooms act to alter not only the accrual of benefits and costs related to the industry, but the nature of post-wildfire opportunity itself. That is, post-wildfire mushrooms come to represent not only an opportunity for cash, freedom, or psychological recovery from wildfire as understood by settlers, but an opportunity to return forests, lands and ecologies back to Indigenous management. Just as morel mushrooms represent only a small fragment—physically and temporally—of *Morchella* fungi, the immediate effects of mushroom permitting represent only a fraction of the possibilities for change in Western Canadian forest and wildfire ecologies from Indigenous governance efforts. On NSN Whut’én Territories, for example, increased control of morel permits is part of a larger plan to apply Indigenous governance, law, and practices across all aspects of forest ecologies, including re-introducing cultural burning practices, discussed in the first chapter as a means of limiting fire size and risk. By governing the post-disaster opportunity of morel mushrooms, Indigenous Nations are producing the possibility for a shift not only in economic and political power, but also in forest, fire, and fungal ecologies towards ones which are more likely to benefit Indigenous peoples, the boreal forest, and wildfire-affected and precarious settlers, as well.

8. Conclusion: Walking out of the Forest with our Baskets Full

8.1. Introduction

My interest in the question of disaster, fire, opportunity, and morel mushrooms first arose during the 2016 Horse River fire, where many of the mushroom pickers I have introduced throughout this thesis were fearfully evacuating their homes and wondering what would remain when they returned. At that time, the fire which left entire Fort McMurray neighborhoods destroyed was one of the most significant disasters in recent Canadian history. The residents of Fort McMurray I have met will likely always have some form of *fiery* memories when remembering the fire or entering recently burned forests. However, there have been several other devastating wildfires across Western Canada in the years since I first began hunting for morels in May 2017 that have surpassed the devastation that Fort McMurrayites like Lenny, Joanna, and Tracey experienced. Since I started this research, wildfires in Western Canada have been almost relentlessly superlative: In British Columbia, 2017 was the worst wildfire year on record, only to be surpassed in 2018 with over 1.3 million hectares burned (Government of B.C., n.d. -a), including the Shovel Lake fire on Nadleh Whut'en, Stellat'en, and Nak'azdli Whut'en Territories. In 2019, Alberta experienced its second-worst fire season on record, with nearly 900 000 hectares of land burned (MNP, 2020). While the 2020 fire season was relatively milder than previous years in Canada, perhaps due to the pandemic limiting fire-starting leisure activities (Poulter et al., 2021),

California experienced its largest and worst fire year on record (Cal Fire, 2020). Finally, the 2021 fire season included a record-breaking heatwave across British Columbia and Alberta, where Lytton, B.C. broke the all-time Canadian heat record, reaching a high of 49.6°C, only to be destroyed by wildfire one week later (Isai, 2021). Unfortunately, throughout my time studying fire morels, it has become apparent that wildfire research has never been so relevant to communities on the wildland-urban interface in the West.

Fires, while disastrous for the communities enveloped in smoke, evacuated or destroyed, are also imbued with opportunity and potential for many species within boreal ecosystems. After each of these record-breaking fire seasons and devastating wildfire events, pine trees have released seeds from their waxy cones, forest succession has been refreshed, and, of course, there have been flushes of morel mushrooms which have popped up from the blackened soil. In Chapter 4, I demonstrated how morels work to translate the ecological opportunity within boreal ecosystems to ones which are tangible to the humans which hunt for these mushrooms, and how settler-colonial fire regimes have made larger fires which produce the conditions necessary for a commercial morel harvest. As I proposed in Chapter 5, because of how different encounters and memories of wildfires lead to differentiated capacities to pick morels in the burnt forest between local and non-local groups, commercial harvesters dominate the morel harvest, in terms of the number of harvesters participating, the quantities of morels picked, and their influence on the cultural norms of the harvest.

The commercial morel harvest, while remaining a relatively small and unknown industry to the average Canadian, is growing in relevance and notoriety. While academic literature on the topic is limited, consumption of wild food products, including mushrooms, across homes and restaurants, is receiving growing popular attention (Allen & Abadi, 2020).

Every year since I began hunting for morels in 2017, more harvesters have entered the commercial industry, aiming to harvest morels for cash, adventure, and freedom. In this time, it appears that the increasing dominance of the commercial industry, and the expectation that profit-seeking interests should be able to dominate this harvest, have entrenched this petit disaster capitalist (Faas, 2018) process. Annual news articles celebrate the commercial industry, in all its “wildness”, and even provincial governments have begun to produce information that supports and facilitates this activity on Indigenous lands (Government of B.C., n.d. -b).

The growth in the commercial mushroom harvest has come with challenges: for pickers themselves, as they face increasing competition to harvest and sell the mushrooms, and for First Nations, who must deal with the ecological and social disruption that the industry brings to their Territories. However, with each harvesting season has also come an increasing number of First Nations who have introduced permitting programs to reduce the negative impacts of the industry and make future-oriented claims to jurisdiction of resources on their Territories. In 2018, Secwépemc and Tsilhqot'in First Nations introduced their permitting programs (Dickson-Hoyle & John, 2021; Pasternak et al., 2019); NSN Whut'en followed in 2019. As the years have passed, Indigenous governance in the industry has been more widely applied and has also allowed these First Nations to protect their communities: in 2020, Indigenous governments regulated the mushroom harvest as a means to limit their vulnerable members' exposure to COVID-19 by disallowing commercial mushroom harvesting on their Territories for part of the harvesting season, and requiring campers to follow COVID-19 protocols (“Yukon lifts”, 2020; White River First Nation, 2020). Thus, while wildfires and the subsequent morel harvest have produced challenges for these Nations,

these events have simultaneously offered an opportunity to further ongoing land claims to reclaim jurisdiction over unceded lands.

Understanding the processes which belie all these socio-political changes after wildfires, from the use of morels as a trauma recovery strategy, to the entrenchment of entrepreneurial and settler-colonial claims to the morel harvest, to the spread of Indigenous regulation to govern commercial harvests, was the key aim of this thesis. Before returning to the key contributions of this study of the post-wildfire morel harvest, I provide an overview below which discusses the overarching narrative through this work while briefly summarizing the arguments within each analytical chapter.

8.2. Thesis Overview

The introductory chapters of this thesis, *Introduction*, *Literature Review*, and *Methodology*, provided an overview of the questions I aimed to address through this study of the fire morel harvest, as well as my theoretical, epistemological, and methodological approach to answer them. I proposed addressing key limitations in the study of disasters through a decolonial political ecology framework, which borrowed from across disciplines, including disaster studies, more-than-human studies, emotional and affective geographies, and Indigenous and allied scholarship, including settler-colonial studies. From here, the remaining chapters presented the morel mushroom harvest in a roughly chronological order, spanning from the long histories leading to wildfire disaster to longer-term plans for governance. Together, these chapters present a rich account of how the informal assemblage of fire, forests, fungi and harvesters produce and make multiple, concurrent, and often conflicting claims to post-wildfire opportunity, and how the settler-colonial context of Western Canada remains relevant in multiple temporalities.

Chapter 4, *Producing Opportunity*, provided an account of the long histories and present-day ecologies which contribute to the production of wildfire disasters and more opportunity. Beyond providing a place-specific account of the landscape and ecology of Western Canadian forests, this chapter aimed to broaden definitions of the social actor in disaster studies by considering the more-than-human opportunism and agency of fire, forest, and fungal ecologies. Thinking with the neo-Marxist concept of the subsumption (Boyd et al., 2001) and “taming” of nature (Prudham, 2003), I argued that this process occurred at the landscape level through the replacing of Indigenous cultural burning practices with settler-colonial fire suppression and management and demonstrated that the commercial mushroom harvest is made possible through the larger, hotter, and more disastrous fires which occur through settler-colonial management. Finally, I argue that the continuing dominance of the commercial harvest is not inevitable, but rather is contingent on the failure to subsume *Morchella* in the laboratory, the continuation of settler management practices, and the stability of the climate system.

Chapter 5, *Capturing Opportunity*, shifted from long histories to the present, embodied, and affective experiences of opportunity in the wildfire-affected forest. Here, I bridged literature on trauma and memory in post-disaster contexts with affective geographies in order to examine how the embodied memories of wildfires mediate the capacities of local harvesters in the burnt forest. I argued that the materiality of previous encounters with fires led to differentiated memories and affective atmospheres for the harvest: for local pickers, these memories were *fiery*, in that they were hot, immediate, and required “putting out” through collective sense-making in the forest, whereas for non-locals, these memories were *smokey*, at once all-encompassing and intense, but dissipating over time. Together, I

demonstrated how fiery memories and the conditions of settler infrastructure and risk in the bush led to mediated capacities among local harvesters to harvest morels and define the ethical standards of the mushroom hunt when compared to their commercial harvester counterparts.

Chapter 6, *Maintaining Opportunity*, shifted my analytical focus to the commercial harvest, in order to complicate ideas of what disaster capitalism—and disaster capitalists—look like on the ground and within informal assemblages. This chapter explored how the affective life of harvesting camps evolved as the harvesting season wore on. Here, I bridged Indigenous thinking about the power and material reality of dreams and dreaming with affective geographies. I proposed that the aspirational *and* nighttime dreams of commercial morel pickers drew them to the forest, helped them find morels, and encouraged them to continue picking when conditions became difficult and their precarity became most palpable. Further, I discussed how the promise of charismatic blonde morels is co-opted by large mushroom companies, who use the advent of these mushrooms to keep discouraged harvesters at camp to pick as many mushrooms as possible at low piece-work wages.

Chapter 7, *Governing Opportunity*, demonstrated how Indigenous First Nations reimagined the ecologically and socially disruptive post-disaster commercial mushroom harvest as an opportunity to assert jurisdiction over their Territories. This chapter was borne out of my communications with Nadleh Whut'en, Stellat'en, and Nak'azdli Whut'en First Nations, and traced how settler commercial harvesters responded to their morel mushroom permitting scheme. Drawing together Mark Rifkin's concept of "settler common sense" (2013), Aileen Moreton-Robinson's "white possessive" (2015) and the myth of the frontier "wild" trading fort (Donald, 2012), I argued that settler workers' resistance to Indigenous

governance is not borne from economic concerns as is commonly claimed from those supporting larger industries, but instead emerges from challenges to settlers' implicit, affective, and place-based claims to resources and opportunity on Indigenous lands. However, fissures in harvesters' attachments to their common sense emerged through experiences of precarity and ambivalence towards the state. I demonstrated how the interventions from NSN Whut'en leveraged these fissures to increase acceptance of the permits and plant "spores" of solidarity among the most precarious of commercial pickers. Ultimately, *Governing Opportunity* is forward-looking, considering how the permitting scheme relates to longer-term strategies and aims to return land and jurisdiction to Indigenous peoples.

Having briefly reviewed the contributions of each analytical chapter, I will now return to the broad themes that are woven throughout this thesis. I return to the themes presented in the Introduction chapter and clarify how this thesis has made significant contributions to understandings of small-scale and informal actors, settler-colonialism, and affect as they relate to the production and distribution of post-disaster opportunity.

8.3. Small-Scale Opportunity and Broadening Understandings of the Social Actor

My focus on small-scale and informal actors has allowed me to demonstrate that disaster capitalism and colonialism are pervasive "all the way down", from the state's disaster-producing forest management which prioritizes fire suppression and the logging industry over Indigenous cultural burning and mixed-aged forests, to the affective attachments to adventure and opportunity within the temporary mushroom camps set up along the burnt forest. I have also shown not only how formal actors and structural conditions influence the experiences and directions of non-state actors, but how the opportunism

performed by otherwise overlooked groups, like wild mushroom harvesters, can be linked to broader environmental and settler-colonial politics. This supports and furthers Barker (2012)'s argument that settler colonialism occurs "everywhere" (para. 19). As suggested above and supported by a growing body of work which centers the actions of small-scale groups in the face of disaster (Bonilla, 2020; Klein, 2018; Solnit 2010), paying attention to these actors allows for a more granular understanding of how disaster capitalism and disaster colonialism function. It also, as I have argued, provides an entry point to identify and support the alternative futures that are possible after disaster.

However, beyond contributing a much-needed case study of informal opportunism within post-disaster landscapes, I have also aimed to extend the concept of the "social actor" within disaster studies (see Birkmann et al., 2010) to beyond the human. Bridging work on the more-than-human and disaster studies, I have demonstrated that trees, forests, and fungi are active participants in the production, capture, and maintenance of post-disaster opportunity. In this way, this thesis builds upon the important work connecting the more-than-human with disaster by authors like Kate Brown (2019) and Rosemary-Claire Collard (2018), which are focused on understanding how capitalism and colonialism affect non-human bodies and lead to the "unraveling" (Collard, 2018) of lively entanglements. I extend these analyses by drawing upon previous work on disaster assemblages (Bennett, 2005) and considering how trees, forests, and fungi are not just affected by, but rather are active participants in disaster.

Through an interest in the post-disaster landscape, I extend this work by proposing that not only are disasters produced through contingent and more-than-human assemblages, but post-disaster *opportunity* is as well. I present *Morchella* as translators who transform the

more-than-human opportunity present within forest and fire ecologies to ones which are relevant to various groups of people. Their charismatic and elusive nature does work to bring harvesters into the forest, but also to keep them there, as I demonstrated in Chapter 6. Including the agency of *Morchella* into analysis, however, also acts to further present disaster capitalism and disaster colonialism as contingent. In Chapter 4, I demonstrated that not only are alternative forms of opportunity after wildfires reliant on the actions of informal groups of harvesters, but also *Morchella*'s role as uncooperative in the forest and the laboratory. Together, incorporating the agency of fire, forests, and fungi helped to strengthen my structural critiques of capitalism and settler-colonialism, while resisting the urge to obfuscate (Williams, 2008) the role of non-human nature in the production of disasters, opportunity, and post-disaster futures.

8.4. Challenging the Inevitability of Disaster Capitalism and Colonialism

Alongside examining the political power of small-scale actors, this thesis was centrally concerned with understanding how settler-colonialism relates to post-disaster opportunity and challenging the “inevitability” of disaster capitalism and disaster colonialism. This approach was borne from readings of decolonial political ecology (Sultana, 2021); Indigenous and allied scholars in Native Studies, settler-colonial studies, and geography (Barker, 2012; Tuck & Yang, 2021; Verancini, 2011; Wolfe, 2006) as well as authors who have explicitly discussed disaster colonialism as a process which works alongside disaster capitalism (Bonilla, 2020; López, 2019; Villanueva & Cobián, 2019).

Through an exploration of manifold opportunism after wildfire disasters, including non-state, “off-grid”, and small-scale actors and non-representational processes, I have demonstrated that disaster capitalism (Klein, 2008; Faas, 2018; Schuller & Maldonado, 2016)

and disaster colonialism (Bonilla, 2020) are pervasive along the wildfire-dependent morel mushroom trail. This contribution, and the critical importance of place-specific, decolonial research in disaster studies, is made clear through each “stage” of opportunism, from the long histories of fire suppression in Chapter 4 to the forward-looking governance from Indigenous Nations in Chapter 7. In this way, I have bridged key work in disaster studies about the relevance of long histories, social structures and colonialism to understanding these events, with the critical interventions of Indigenous and settler-colonial studies scholars regarding the specific characteristics and processes associated with settler colonialism.

Throughout, I have shown how large wild mushroom companies and commercial pickers alike seek profits in the burnt forests. Settler commercial harvesters’ entrepreneurial goals are tightly enmeshed with their settler “common sense” (Rifkin, 2013; 2014) claims to adventure, commerce, opportunity and resources on Indigenous lands. While not always intentional and limited through their roles as pieceworkers, commercial mushroom harvesters participate in the industry as “petit disaster capitalists” (Faas, 2018). Commercial harvesters’ capacities to dominate the harvesting season can displace the activities of wildfire-affected locals, shift the ethical standards of the hunt towards ones of profit-maximization, and encourage entrepreneurial, neoliberal understandings of how the mushroom industry fits into wildfire recovery in affected communities. In this way, this thesis strengthens understandings of how disaster capitalism and colonialism work, in that these processes are not merely functioning through intentional action by states and large corporations but are also tied into questions of individual and collective aspirations, dreams, and affects among various small-scale groups on the ground.

Though this analysis, I have also demonstrated that disaster capitalism, while pervasive, is not *inevitable* when interrogated through informal assemblages of human and more-than-human actors. From the threat of *Morchella* cooperating in laboratories and thus undermining the wild mushroom industry; to Fort McMurrayite harvesters like Roger telling commercial pickers wrong locations to discourage the industry from assembling by their community; and the mushroom buyer quietly suggesting to pickers that they should form a union, I propose that small-scale actors are complex in that they often simultaneously participate in, rework, and undermine profiteering in post-disaster landscapes. In every stage of the production, capture, maintenance and governance of post-disaster opportunity, I have demonstrated that the outcomes which seem at first pervasive and dominant, are, in fact contingent and ripe with the opportunity for change. This empirical contribution of alternative forms and claims opportunity adds to a growing body of literature which challenges the inevitability of disaster capitalism (Cretney, 2017; Wisner, 2009).

While demonstrating that the unique structures, affective atmospheres, myths, and claims associated with settler colonialism are deeply entrenched and affect the distribution of morel opportunity at all stages of the harvest, I have also argued that disaster *colonialism* is not inevitable. From Guardians of the Land teaching mushroom pickers about how the lands on which the mushrooms fruit were NSN Whut'en's, not the "Crown's"; to Ronnie directly challenging settler claims to resources in his temporary mushroom-buying tent; and young settler harvesters like Rémi positively discussing the services and support from First Nations for workers in the bush, the morel harvest represents an opportunity to challenge and shift taken-for-granted claims to land and resources. Taken together, stories from Indigenous Guardians of the Land, local harvesters, and forest and fungal labourers have demonstrated

that while profiteering and dispossession may persist, alternative forms of post-disaster change are fruiting in the burnt forests of Western Canada, too.

8.5. Affect, Memory, Dreams, and Opportunity

A key contribution of this work is an understanding that post-disaster change is not only related to the structures of capitalism and colonialism but is also an emotional and affective process. Throughout the development of this project, I have been interested in how the experiences of disaster affect the ways different groups of harvesters imagine opportunity after wildfires and their capacities to navigate the burnt forest. This interest was aligned with feminist political ecology and emotional geographies, where I was concerned with how wildfires and the morel harvest within recently burned forests *felt* to individual harvesters. However, as I became interested in questions of distributed agency and assemblages, I engaged with concepts from affective geography, as well. To bridge literatures which have been considered disparate (see Pile, 2010), I utilized concepts, such as affective atmospheres (Anderson, 2009), and affective labour (Hardt & Negri, 2005) which connect the individual, “standpoint” experiences of emotions, with collective and non-representational affects.

I demonstrated in Chapters 5, 6, and 7 the ways in which affective life influences the forms of opportunity which are imagined on the morel trail; the claims various groups make to mushrooms, land, and opportunity; the ability of harvesters to enter the forest and continue to pick mushrooms in difficult conditions; and the forms of resistance to Indigenous jurisdiction. The broad-ranging nature of my analysis allows for an understanding of how dreams, emotions, and affects are relevant to all “stages” of post-disaster claims to opportunity. For example, the concept of *fiery* and *smokey* memories introduced in Chapter 5 demonstrates how the materiality of encounters, not just the time that has passed, can

influence the intensity of affective atmospheres associated with disaster, and in turn, the affective capacities of different groups in the post-disaster landscape. This work extends Giorgio Hadi Curti (2008)'s work which argues that emotions, affect, and memory are entwined, by explicitly including the corporeal and material into my analysis of fire, memory, and capacities to harvest morels. Together, these chapters make a significant contribution to the study of disasters, where questions of emotion, affect and reflexive action (Birkmann et al., 2010) are relatively under-explored, and demonstrate that affective life is of critical importance to understanding how post-disaster opportunity is imagined, captured, and governed.

In the burnt forest, emotions and affect mattered across temporalities: from harvesters' encounters of wildfire and the excited dreams of mushrooms before the mushroom season begins, to the "dead to the world" nights' sleeps and fractured "common sense" (Rifkin, 2013) of commercial harvesters in late June. As such, I have also extended emotional and affective geographies by considering Indigenous thought about the material and political power of dreams (Deloria, 2006; Guédon, 1994, 1999; Povinelli, 1995) alongside Western understandings of dreams (Freud, 1900/2015) and "dreamworlds" (Benjamin, 1999) to demonstrate how post-disaster opportunity emerges not only in the aspirations of harvesters and the affective atmospheres around mushroom-buying campfires, but in their sleeping states, as well. Specifically, I extend analysis of affective labour (Hardt, 1999) to demonstrate how these dreams contribute to the social reproductive affective labour performed by exhausted commercial harvesters. I argue that nighttime and aspirational dreams *together* with the intensities of anticipatory atmospheres around the harvest, increase the harvesting capacities of pickers, and are ultimately leveraged by the wild mushroom

industry to produce profits. As such, I suggest that, despite harvesters' aspirations to escape capitalist wage labour, the work that these settler dreams *do* can act to entrench "salvage accumulation" (Tsing, 2015) as well as settler-colonial claims to land and opportunity.

8.6. Normative disaster research

As outlined in Chapter 3, *Methodology*, beyond contributing to the fields of disaster studies and environmental geography, I also aimed to add to a growing body of work in political ecology and Native Studies which is focused on not only theorizing, but *participating* in resistance to colonialism, capitalism, and neoliberalism. Through this approach, I have contributed to an area which remains relatively under-explored in settler-colonial studies: how settlers respond to Indigenous jurisdiction and leadership outside of the contexts of mutual alliances and allyship (Davis, 2010), and environmental activism or social movements (Curnow & Helferty, 2018; Bacon, 2017; Hiller, 2017)³¹. However, like all PhD. research, this project could have taken various directions; below, I draw not only from what I *did* do to support alternatives to disaster capitalism and colonialism, but also what I have learned academic research *could* do, if one was entering the blackened forest for the first time.

8.6.1. Partnering with Indigenous Nations and Local Communities

As I outlined in my Methods chapter, during my fieldwork in 2019, I was in contact with NSN Whut'en First Nations, and changed my methodology and interview guide in order

³¹ Eva Mackey (2014, 2016)'s work regarding settlers' opposition to Indigenous land claims is an important exception (see also Siegel, 2017), as is Grossman (2017)'s work exploring how conservative settlers can work alongside with Indigenous Nations in contexts where their self-interests are at stake

to provide information that would support their permitting program and future governance projects. Aligning this part of my project with Nadleh Whut'en and Stelat'en's objectives and providing information that could be useful for the administration of future licensing and permitting on their Territories was likely the most direct way my research has supported alternatives to disaster capitalism and colonialism. My relationship with Nadleh Whut'en and Stelat'en First Nations remains ongoing and in development. Particularly in a hectic pandemic and from thousands of kilometers away, it takes time to build relationships that are productive and reciprocal. Nonetheless, the ability to explicitly transform my research project into one which is aligned with their needs, and which has the potential to produce additional materials and recommendations which will help with future programs was central to my political ecology research remaining focused on the "political" (Robbins, 2004).

Of course, research partnerships with communities and Indigenous First Nations are not new, with Community Based Research (CBR) becoming standard practice within Canadian Native Studies, Geography, and other social sciences departments and the principles of this approach taught as early as the undergraduate level (University of Alberta, n.d.). Despite the ubiquity of CBR in Canada, there is less emphasis on a key dilemma I faced in this research: studying *settler* populations on Indigenous *Territories*. Despite this relative lack of representation in the decolonial literature, this thesis has demonstrated the value of settler researchers who explore settler groups with explicitly decolonial frameworks, and in partnership and solidarity with Indigenous nations. My project may offer a useful case study of how researchers who are interested primarily in research with non-Indigenous populations can aim to act ethically and in alignment to the goals with the Nations on whose Territories they conduct this research.

Beyond the tricky nature of studying a primarily settler population on Indigenous Territories, as I discussed in *Methodology*, the post-disaster context also came with unique challenges in making trusting and reciprocal relationships with First Nations. The fly-by-night nature of the morel industry meant I could not reliably predict where I was going to complete fieldwork in 2019. This issue is not unique to morels: while understanding where social vulnerabilities lie and modelling can provide some predictive power regarding where disasters will occur, by their very nature, disaster events continue to occur at some level of unpredictability. As such, disaster researchers without pre-existing collaborative relationships with affected communities—whether those communities are Indigenous Nations or not—will likely face similar challenges I described in building relationships and defining research goals which are aligned with the needs and goals of communities. Despite the inherent challenges of studying disaster events, researchers have produced community-based partnerships, such as the Superstorm Sandy Research lab, where Max Liboiron produced a memorandum of understanding to ensure that researchers do not “mine” data from communities (Fortun et al., 2017, see also Liboiron, 2015).

In the context of Canadian wildfires, there has been a flurry of exciting research partnerships and projects with Indigenous Nations which have emerged since I began hunting for morels in 2017 (Dickson-Hoyle & John, 2021; Walker et al., 2021; Zahara, 2020). These projects vary in scale and goals, from exploring long-term relationships with fire ecologies and Indigenous Science and Technology Studies (STS) (Zahara, 2020); to recovery processes (Dickson-Hoyle & John, 2021). Nonetheless, these projects share an explicit partnership with Indigenous First Nations, where research questions have been co-produced with

communities, and, alongside this work, demonstrate that community-based research is centrally important to maintain a decolonial praxis throughout the disaster research process.

8.6.2. Producing Empirical Pedagogical and Community Tools

Throughout my DPhil., I have had the opportunity to design and teach several environmental studies courses at the undergraduate level, as well as to provide guest lectures to students in the MSc. in Environmental Change and Management program at Oxford. In each instance, I have used the case study of morel mushroom harvesting as a case study to teach about disaster capitalism, settler-colonialism and dispossession, Indigenous governance and resurgence, and environmental justice. Most students I taught were from outside of Canada, and for many, these lessons were introductions to topics of settler colonialism, Indigenous sovereignty, environmental justice, and on-the-ground challenges of land struggles and environmental governance. The grounded nature of this research, along with the fact that the data emerges from informal and small-scale actors, allowed students to identify how activities which may at first seem “sustainable” are linked to ecological, social and political struggles. While much too early to gauge a long-term impact of these lessons, students reported that they felt it easier to understand concepts such as Indigenous sovereignty and environmental justice following our sessions; an instructor can hope they do, in fact, go on to apply them to the situations, discourses, and political struggles they encounter moving forward.

Further, my experiences with the morel harvest have demonstrated that applied resources for communities can have immediate impacts on attempts to counter-act disaster capitalism and support Indigenous Nations assertions of jurisdiction on unceded Territories. For example, in Chapter 7, I described how NSN Whut'en First Nations began to insert

information sheets about Indigenous jurisdiction, Crown lands, and UNDRIP into the permit packages distributed to commercial harvesters. These sheets, along with the other interventions I outlined in Chapter 7, became important to changing harvesters' minds about the permitting programs, and reducing resistance to the assertion of Indigenous jurisdiction over resources. It was much later, in November 2021, that I learned these information sheets were produced in part by Rebecca DeLorey, a Nadleh Whut'en staff member whose own academic research interrogates questions of Indigenous jurisdiction and law on Nadleh Whut'en's lands (DeLorey, 2021). While not completed at the time of writing, I hope to produce similar kinds of impactful and informative documents for various stakeholders from this research in partnership with Rebecca and other officials from Nadleh Whut'en and Stelat'en First Nations, to provide recommendations for future governance programs and permitting schemes on different First Nations' Territories.

8.7. Future Fruits of Fungal Research

As I have proposed previously, fungi are rhizomatic (Deleuze & Guattari, 1988) participants in political ecology research, in that they lead researchers along unexpected paths, challenge assumptions about hierarchy and linearity, and, in the case of morels, are imbued with manifold potential. Of course, I also suggested that morels are also "mycorrhizal", in that their non-deterministic agency remains connected to their relations to lands, forests, and people. As such, this thesis is just one of seemingly infinite possibilities of what could be learned from the study of these mushrooms. The nature of fire morels and the manifold forms of opportunity they represent is such that there were many opportunities for analysis that I could have taken, and which future research could explore. A morel mushroom is just one fruit of a large mycorrhizal network, after all, and this thesis is just one

perspective on a large assemblage of intersecting settler-colonial histories and capitalist structures, disasters, fire and forest ecologies, mushrooms, and harvesters from various walks of life.

My approach to the morel harvest was influenced by my identity as a settler mushroom picker, my previous (*smokey*) experiences with wildfires, as well as my political beliefs about settler colonialism, capitalism, and disasters. These factors influenced the research questions I proposed, the epistemological and methodological approaches I adopted, the project sites I selected, and my analytical approach. Of course, the nature of any research project is that my analysis was also limited by time, research relationships, skills, and finances. As such, the suggestions for future research below are borne from questions which emerged throughout this research that I could not address within the scope of this project. These future directions are wide-ranging, and extend beyond disaster studies, including a longer-term study of governance strategies for the wild mushroom industry and gaining a better understanding of the experiences of pieceworkers within the various resource industries in Western Canada.

8.7.1. The Mushroom “Circuit”, Mobilities, and Governing the Wild Mushroom Industry

This thesis has focused on the short harvesting season of fire morel mushrooms across two project sites. I have argued that the unique ecology of fire morels, including their disaster-seeking reproductive cycles, their short fruiting window of only six to eight weeks in a single year, and their role in primarily settler or European cuisine, have together provided an opportunity to understand the multiple and concurrent forms of post-disaster opportunity these mushrooms represent.

However, there are a wide variety of other edible mushrooms which fruit outside the disaster context and are harvested across Western Canada, including chanterelles, pines or matsutake, boletes, and more. The commercial mushroom-picking “circuit” that harvesters discuss includes all these mushrooms alongside morels, as each fruit in different seasons and locations and together allow for ongoing work throughout the spring, summer and autumn. Research which understands how the full annual mushroom-picking circuit affects harvesters’ relationships to local communities, Indigenous Nations, mushroom companies, and each other could help connect this research, with its focus on localized settler-colonial relations, to once which discuss the geographies of migrant and precarious labour (see Strauss, 2017).

Further, given that commercial harvesters are drawn to the industry for reasons beyond income, such as adventure, escaping “society”, or recovery from stress and trauma, research which connects the experiences of the annual mushroom circuit to the growing body of literature on secular pilgrimages may also take the findings of this research in a generative direction. For example, understanding what connects the emotional and affective experiences of commercial mushroom picking, annual pilgrimages, and tourism (see Collins-Kreiner, 2010) could link this research to broader studies of mobile geographies. Further, given protests of Indigenous peoples to so-called “New Age” pilgrimage tourism, primarily undertaken by white environmentalists (Attix, 2002), research which examines the commercial mushroom-picking harvest in this context could extend the analysis of settler-colonial transience introduced in Chapters 6 and 7.

Beyond the potential to connect the mushroom-picking circuit to other geographies of mobility and secular pilgrimage, the socio-ecological impacts associated with these other

harvests and long-term strategies to govern the wild mushroom industry more broadly will help to extend the lessons I outlined in Chapter 7. While some commercial harvesters told me about First Nations governance for pine and chanterelle harvesting on Haida Gwaii, there seems to be little publicly available information regarding First Nations governance of mushroom harvesting in British Columbia and Alberta. Future research which partners with First Nations who are interested in introducing permitting and licensing to the mushroom industry on their Territories and explores the relationships which can be built between wild mushroom companies, commercial harvesters, First Nations governments would likely be very relevant to other resource industries.

Research on First Nation wild mushroom governance would also be a useful contribution to mushroom ecology and management literature, as most existing work in North America is based in the United States, where the federal government issues permits (McLain, 2008; Tsing, 2015). As I have argued throughout this thesis, considering the specific conditions of settler-colonial Canada is key to understanding the politics of opportunity in these landscapes. Applying this lens to the broader mushroom industry would thus provide insight regarding how edible fungi can be harvested sustainably, ethically, and with the consent of Indigenous Nations in Canada as well as other settler-colonial contexts.

Further, the governance of other wild mushrooms, such as pine, boletes and chanterelles, may be more complicated as these mushrooms are, at least traditionally, more commonly harvested in Indigenous communities (Kuhnlein & Turner, 1991). Thus, the governance of these mushrooms, even when considering the relatively less-fraught context of hobbyist harvesting (Fine, 2008), may be more complex because of the increased desire among Indigenous harvesters to pick and consume these mushrooms which fruit on their

Territories (Richards & Creasy, 1996). The lessons of this thesis regarding Indigenous and settler claims to resources, and the ways in which settlers can find Indigenous authority acceptable when considering their economic position and relationship with the settler state, could be helpful in understanding how to navigate competing claims to resources which, unlike morels, are of more cultural or material significance to Indigenous peoples and Nations. Thus, research which provides a longer-term perspective that is partnered with First Nations would not only provide a greater understanding of how Indigenous Nations in Canada can get “Land Back” through licensing of industries on their Territories (see Pasternak et al., 2019 for additional examples), but also understand how recreational and sustenance activities are entwined with the affective atmospheres and settler-colonial claims I identified in Chapters 6 and 7.

8.7.2. Connecting Precarious Piecework and Extraction in Western Canada

Chapters 6 and 7 outline the experiences of settler workers within the resource-based and extractive morel mushroom harvest. While brief, I outlined how these workers often participated in various resource-based or extractive industries across the Canadian West, including harvesting other wild mushrooms, but also tree planting and forestry, fruit and berry picking, gold panning, and, in some cases, the oil and gas industry. Future research which aims to trace these workers across industries, lands, and forms of labour may provide a richer account of the relationships I began to explore here: relationships between desires of freedom and adventure; white possessive and affective common-sensical claims to land and resource; and assertions of Indigenous governance.

Because of the cultural dominance and socio-ecological impacts of Fort McMurray and the tar sands in the West, there is already a significant body of work which explores the

experiences of resource workers in this context, including how these workers' beliefs, feelings, and actions relate to settler-colonialism or "frontier masculinity" (Connell, 1993; Miller, 2004). However, as I have demonstrated in this thesis, informal, transient, and piecework forms of work, such as mushroom picking, tree planting, gold panning, and fruit picking, are distinct from the oil and gas industry in that they take on informal and entrepreneurial forms. They are perhaps even more culturally engrained as an important life experiences for those seeking adventure and freedom (Ekers & Farnan, 2010) because they are more "sustainable" than the oil industry and are parts of "moral economies" (Weiler et al., 2016). Nonetheless, the mushroom pickers I met who participate in other informal industries explained that precarity and uncertainty was consistent across nearly all these jobs, including the tree planting industry (Ekers & Sweeney, 2010). Understanding how these workers navigate these roles, and how they relate to land and jurisdiction across multiple industries could provide a richer account of the relationships between settler "common-sensical" claims to resources and economic opportunity and precarious labour beyond the post-disaster context represented in this work. Including other informal industries like berry, fruit, and vegetable picking would also include the important role of migrant workers in the fabric of Western Canadian resource work (Preibisch, 2007; Weiler et al., 2016), allowing for a more complex understanding of how precarious labour by settler *and* migrant workers is performed on Indigenous lands. Further, research which explores these workers across multiple industries, including in the wider "gig economy" (see Woodcock & Graham, 2019), could trace the effects of Indigenous licensing and permitting programs, such as the one introduced by NSN Whut'en, to explore if acceptance of Indigenous governance in one informal resource industry has spillover effects in others.

8.7.3. Disasters, Affect, and More-than-Human Assemblages of Resistance

This thesis has focused on the manifold forms of opportunity which emerge after disasters. Throughout, I have emphasized the importance of tracing place-specific histories as well as small-scale processes of change which occur after disasters in order to challenge narratives regarding the inevitability of disaster capitalism and disaster colonialism. There is, of course, significant space to further examine how the specific conditions of settler-colonialism relate to disaster events in Canada and elsewhere. Work which examines how different settler-colonial contexts are distinct *from each other* with respect to post-disaster opportunity would be particularly insightful. A directly comparative example to this work could include exploring the histories and contemporary socio-political structures which influence post-disaster opportunities for Indigenous peoples and settlers following the recent record-breaking bush fires in Australia.

Beyond the importance of additional place-specific accounts of opportunity after disasters, political ecological frameworks and the secondary conceptual lenses I have adopted also allow us to make connections between experiences of disaster local and broader processes of colonialism, capitalism, extraction, and disaster. Research which further investigates how affect and more-than-human analysis relate to disaster and climate politics, for example, could provide further insight on how informal processes of change can link to larger atmospheric experiences as well as global environmental politics. Along this line, recent work by Blanche Verlie (2019) considers the affective life associated with a warming planet, emphasizing how disaster events are at once experienced unevenly, but also are part of broader atmospheres (Anderson, 2009) of climate change which involves both human and more-than-human agency. This contribution, alongside work such as from Collard (2018)

which considers long histories of disaster as they relate to more-than-human life, would help to broaden the scope of the contributions I have made in this work, and connect them with the more-than-human and affective life associated with ecological degradation and climate change at a larger geographic scale.

8.8. Conclusion

Through examining the harvest in recently burned forests in Alberta and British Columbia, I have considered how the multiple forms of opportunity morel mushrooms represent are related to place-specific histories and land struggles; more-than-human opportunism, agency, and labour; the affective and emotional life of disaster-affected communities and precarious workers; and the structural conditions of settler colonialism and capitalism. By adopting a political ecology framework informed by Indigenous and allied scholarship, this thesis situates mushroom picking, often considered a hobby which operates outside of capitalism (Barron, 2015), or a form of work within a “sustainable” industry, within discussions of settler-colonial forest management, extraction, and disaster. Not only does this extend previous writing on mushroom harvesting (Tsing, 2015) but also addresses lingering questions within disaster studies regarding how non-state actors experience and contribute to post-disaster socio-political processes (Birkmann et al., 2010), and the alternatives to disaster capitalism and disaster colonialism (Cretney, 2017).

Through borrowing from multiple fields, I have demonstrated how this work makes interdisciplinary contributions beyond disaster studies. These contributions include considering settler-colonial dispossession in understandings of the subsumption of nature; examining the materiality of past wildfire encounters in the production of disaster memories,

affective atmospheres, and affective capacities in the bush; extending concepts of affective labour and “settler common sense” (Rifkin, 2013, 2014) to apply to the material realities of settler resource workers; and how settler workers’ resistance to Indigenous authority can be traced to myths of the trading fort (Donald, 2012) and settler dreams of freedom and adventure. Together, these findings demonstrate how concurrent and often contradicting post-disaster opportunisms relate to broader politics about natural disasters, environmental politics, resource extraction, and Indigenous governance within Canada and in other settler-colonial contexts.

When entering the burnt forest for the first time, it is possible to become overwhelmed at the destruction from disaster. The charred soil and dead trees, alongside stories from fire-affected locals, makes it difficult at times to consider the potential this landscape can hold. As this thesis has demonstrated, disasters can certainly act to entrench processes like capitalist accumulation, neoliberalism, and the dispossession of Indigenous peoples and Nations. However, just like the harvesters who carefully and slowly scan the burnt ground in the spring, searching for an unlikely source of emotional recovery, cash, freedom, or adventure, research which takes the time to consider other, smaller-scale opportunities following disasters can provide fruitful alternatives to narratives which treat disaster capitalism and colonialism as inevitable. As Cretney and Bond (2014) argue, work which outlines the manifold forms of opportunism, including and beyond disaster capitalism and disaster colonialism, does more than provide theoretical insights to academic audiences. This thesis also helps to *support* processes of reworking, resistance and resurgence following disasters, and offers a blueprint for examining alternative modes of life and governance in an era of increasing climatic uncertainty.

On our last day of fieldwork on NSN Whut'en Territories in 2019, Claire and I decided to go looking for morels one last time. By this stage of the season, the previously blackened forest was becoming verdant with grasses and early-succession shrubs, and the new wildfire season had already begun, with a blaze having been extinguished near our campsite just a few weeks before. As with every spring, the cycle of forest fires and morel harvesting was turning over and the picking conditions were no longer ideal on NSN Whut'en Territories. Many of the harvesters we met at Wayne, Johannes and Ronnie's camps had already packed up at moved on to other burn sites, which meant we were left to harvest the few morels that remained in our favourite patches.

Nevertheless, because of luck, patience, and knowing where to look, we walked out of the forest with our baskets full of morels that day. As we climbed back into our van, we were torn about what we felt we should *do* with this final haul of mushrooms. Should we cook them over our campfire as a farewell meal and a toast to our adventure? Sell them to Johannes to pay for our gas on the way home? Dry them to bring back to the United Kingdom, to share with friends and family? Or gift them to the Guardians of the Land who had recently welcomed me on a ride-along across their Territories? The manifold possibilities of what morel mushrooms can represent and do after wildfires is what draws harvesters to burnt forests every spring, and what motivated this research. This thesis has examined the multiple opportunities, decisions, feelings, and atmospheres which surround morel mushrooms, including those which Claire and I grappled with on that day. What morel harvesters like Claire and I do with their mushrooms appears insignificant. Across multiple fires, Territories, and geographies, however, I have demonstrated how these strange-looking mushrooms—and the harvesters who follow them—work within, entrench, and influence larger politics of

disaster, precarity, and dispossession in Western Canada. This work has also argued that baskets of morels are imbued with opportunities to undermine and resist disaster capitalism and Indigenous dispossession. As we exited the forest, our baskets of morels no longer represented the traumatic impacts of wildfire, disaster capitalism, and disaster colonialism, but rather the possibilities of alternative futures that could come.

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Appendix A: Sample Interview Guide (2019, NSN Whut'en Territories)

Picking Questions

- How long have you foraged for mushrooms?
- Where have you foraged before? Why did you go there?
- Why do you forage for morel mushrooms?
- How do you feel when you are picking morels?
- What are your favourite parts about morel mushroom picking? What aspects do you dislike?
- Did you forage in this area or visit this forest before the wildfire?
 - What was it like? How has it changed?
- What do you look for when you're picking? How do you know what to look for?
- Do you pick all the morels you see in the bush? How do you choose which to take and which to leave?
- How would you feel if you saw another forager picking in your patch?
- How do you treat other pickers you see in the bush? How do they treat you?
- What makes your patches "yours"? Does this change over time?
- Describe a "good day" picking morels.
- Describe a "bad day" picking morels.
- Do you face any barriers to morel mushroom picking? What are they? How do you address them?

Permission/Land Questions

- Do you engage with the communities that were affected by wildfires? How so?
- Have you ever been asked to sign or pay for a permit to pick/buy morel mushrooms?
 - If yes, did you sign/pay? Why or why not?
- How do you feel about permits for picking morels? Why?
- Who do you think has the right to pick morels? Why?

- What about locals who were negatively affected by wildfires?
- What about those from First Nations communities whose territories were affected by wildfire?

Buying/Selling Questions

- How long have you been buying/selling morel mushrooms?
- How do you pick what buyer to sell to?
- Do buyers take all the mushrooms you bring to them?
- If no, which mushrooms do they reject? How do you feel about this?
- Does the price of morels affect your picking? What do you do if the price is low/high?
- How do you entice pickers to sell to you? What influences sales to consumers?
- Who eats the morels you buy/sell?

Wildfire Experience Questions

- Were you affected by wildfires in 2018? In what ways?
- Do you think the Shovel Lake fire was a disaster?
- How did you feel during the time of the fires? How do you feel now?
- Did your life change after the fire? In what ways?
- Did your community change? How?
- Do you usually pay attention to news about wildfires in Northern Canada? If so, why?
- Do you think wildfires are a concern in Western Canada? Why or why not?

Work/Life Questions

- How does morel picking fit into your life?
- Do you have uncertainties about your work? If yes, what are they?
- Do you have uncertainties about your financial future? Why or why not?
- Does your life and work change when seasons change? How so?