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The Mountain Pine Beetle Chronicles: A Bioregional Literary Study of the Anomalous Mountain Pine Beetle and the Lodgepole Pine Forests in the Northern Interior of British Columbia

by

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This work is dedicated to my grandmother, Mary Mercer.

ABSTRACT

This study examines settler culture representations of the mixed-pine forests and the anomalous mountain pine beetle in the northern interior forests of British Columbia, Canada. Primary materials are discussed as potential or existing examples of art and literature as which contributes to BC northern interior bioregional culture. The primary sources include settler memoirs, a back to the land narrative, interviews with nine settler culture residents, and contemporary poetry, installation art, and drawing set in the BC northern interior. This project examines the anomalous mountain pine beetle population of 2004 – 2011 in the context of a culture focused on resource extraction, and postulates that the anomalous mountain pine beetle brings unique, if unsettling, challenges to the development of a sustainable bioregional culture in the BC northern interior.

Bioregionalism is the practice of attaching to and learning and living in a home bioregion with the intention of developing ecologically and socially sustainable culture and reinhabiting formerly ecologically harmed or otherwise altered ecosystems. This study brings the ideas of bioregionalism to a colonized state and recognizes the complexity of bioregionalism in a politically and ecologically complex region. To this end, this project addresses settler culture disregard for indigenous land rights and knowledge. Since a bioregion is a cultural as well as a biological ecology, this study acknowledges the ongoing repression and genocide of indigenous people and First Nations culture in British Columbia. Further, contemporary

and historical settler culture art and literature do not adequately address indigenous land claims and colonial violence, but do show potential for creative alternatives to reductive ecological relationships.

This project shows the importance of recent literary and artistic ecoventions in settler culture discourse, and presses the need for settler culture to confront its distance from becoming an ecologically just culture. Finally, this study proposes that a reimagining of populations, relations, and territories in Northern BC will create increased community resilience to climate change and ultimately lead to more peaceable and stable human/non-human relations.

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Introduction

The anomalous increase of the mountain pine beetle population in Northern BC since 2004 presents an unusual and unprecedented opportunity for humans to reinhabit their home place. I refer to the *anomalous* rather than the *epidemic* mountain pine beetle population because I wish to invoke the cultural intensity of this particularly successful beetle population. By successful, I mean that this population behaves as mountain pine beetles are most likely to behave *rather* than as a population that is, in some way, aberrant. To invoke an *epidemic* calls forth a diseased or *unusual* body, a beetle population that is unlike an imagined *proper* beetle population. However, while this anomalous mountain pine beetle growth has been cast by media, government, and industry in epidemiological terms as a natural disaster, the periodic appearance and virtual disappearance of the mountain pine beetle (a species native to British Columbia) is a predictable pattern in BC's Northern Interior forests. In no way is a pattern of bark beetle expansion an external affliction to BC forests. Settlers who have lived in the region for more than 30 years recognize the signs of the beetle's movement through forests. First Nations people know of many earlier mountain pine beetle population cycles. Terry Glavin and the People of the Nemiah Valley write that "when the green pine forests . . . turn red," it is "all right," and part of

a healthy pine forest life cycle (77-78). The difference, since 2004, has been the velocity of the mountain pine beetle population's growth: unstopped by deep, cold, winters or mixed-age, mixed-species forests, the beetle has moved through more forest more quickly than ever before. Researchers agree that anthropogenic factors have contributed to the scale of this mountain pine beetle population cycle and climate change has allowed for longer, warmer breeding cycles for the insect. Fire-protected, replanted, monoculture forests provide an ideal and uninterrupted ecosystem for the mountain pine beetle.

The current notion that the mountain pine beetle is an acute affliction on an otherwise amenable resource-rich landscape has history in more than a century of colonial thinking about the BC northern interior. During the course of researching and writing this project, I was surprised to find that, even with widespread acceptance of climate change and popular interest in ecology and sustainability, hegemonic settler culture thinking about ecosystems in BC has not shifted. The view of organic populations as static human resources rather than dynamic populations runs through 20th and 21st century colonial writing and thinking.

Regardless of the widely available knowledge that the mountain pine beetle is endemic to Northern BC, the view of the mountain pine beetle as an isolated aberration is found throughout contemporary written and oral narratives. Yet the mountain pine beetle's behavior can only be known as it

interacts with other organisms. The mountain pine beetle is noticeable in its exchange with pine trees, with symbiotic fungi, with moose passing through the pine forests, and with humans living with the forests. Most humans only observe the mountain pine beetle's large scale effects on landscape (the reddened forests) or on trees already processed as timber (the blue fungal stain on pine). In these cases the beetle's territorial expansions and material imprint should remind humans that the insect lives as a participant in a dynamic ecosystem rather than as a solitary, individual natural enemy. Still, most contemporary writing about the mountain pine beetle remains committed to the "epidemic" model of the mountain pine beetle as an attacker on an otherwise healthy forest. A BC Ministry of Forests, Land and Nature Resource Operations FAQ describes Ministry efforts to "mitigate the impacts of the epidemic" in the "beetle battle." A 2013 Globe and Mail article begins by invoking the "[g]nawing pests that are devastating Canada's forests" (Mckenna). Another 2012 article describes the "full, devastating impact of the pine-beetle epidemic" on jobs, stating that "half the forest-industry jobs in the province's interior will vanish" due to a "supply crisis"(Hume). The mountain pine beetle is represented, and becomes, in both official rhetoric and popular imagination, an enemy of nature, an economic disaster, and a military power. This polarization of the mountain pine beetle and the human as oppositional enemies in an economic crisis neglects ecological complexity, elides anthropogenic causes for the changes in forest composition, and only further reifies the pine forests as resources.

Further, the economic suffering of forest workers and their dependent community members is rarely addressed. Media accounts of the mountain pine beetle have not included profiles of working families, accounts of personal debt accumulated to account for living in the unstable resource economy of northern BC, or analysis of the actual labour conditions of those who work in the pine forests.

A dissonant voice in discussions about the mountain pine beetle has been that of investigative journalist Andrew Nikiforuk. His 2011 book *Empire of the Beetle*: *How Human Folly and a Tiny Bug are Killing North America's Great Forests* offers a cohesive, provocative summary of the history of softwood lumber logging in British Columbia, and carefully describes the lumber industry's reaction to the mountain pine beetle. Nikiforuk documents the ecological wisdom of many of the long term settler inhabitants of the forests, and contrasts this perspective with the resource-based industrial standpoint. Nikiforuk catalogues the lumber industry's hasty, large-scale and ultimately destructive responses to the mountain pine beetle population, and reveals problematic forest practices that foresters themselves admit are scientifically and ecologically flawed.

The unique strength of *Empire of the Beetle* is Nikiforuk's willingness to admit a range of emotional, scientific, and economic reactions to what is conceived us as the mountain pine beetle "epidemic." Like my study, his book is

interested in ways human communities live with a radically altered landscape and with a climate change event. As well as reports on some unusual and artistic representations about the mountain pine beetle and other bark beetles, Nikiforuk's book records the grief and fear that many human inhabitants feel in relation to mountain pine beetle populated forests. His compassionate writing about the foresters, artists, and other community members argues that, for the most part, settler communities desire sustainable living with their home ecosystems.

While Nikiforuk is attentive to the contradictions and troubles of resource management in British Columbia, his book does not investigate the ideology of resource extraction *per se*. That is, his criticism of forestry mismanagement addresses the performance of the timber industry rather than the manner in which "nature" itself is constructed as a resource for colonial British Columbia. I think that Nikiforuk's attention to alternative forestry practices suggests that reconciliation between the aims of the timber industry and the profound troubles of the past century of overlogging is a potential outcome of the effects of climate change on silviculture policy. In my project, like Nikiforuk, I acknowledge the troubles of resource extraction in British Columbia. Further, I question – and hope to imagine otherwise – the transposition of living organisms into commodities, and of resource-emptied spaces into "dead forests." Nikiforuk sees potential for better ecological planning in the hearts and minds of the residents of British Columbia. To his vision I add the necessity to

unearth, examine, and reimagine more than a century of human/nature settler-culture relations. I do so through a bioregional literary analysis of narratives and art in and about the BC interior.

In my project I study poetry, memoir, first-person account and visual art about the pine forests bioregions in the northern interior of BC before, during, and in the wake of the anomalous mountain pine beetle. I am interested in interactions between human and non-human organisms in their home bioregion of the northern interior of BC. In other words, I am studying an ecology. Most simply, *ecology* is the study of interactions between organisms and their home environment, and *an ecology* is that constellation of interactions and bodies found in the environment. The relations between organisms and their environments, in their past, present, and coming forms, are limitless in variation. As the original site of study for western scientists and writers of all disciplines, ecological study is the foundation for most academic knowledge. The figure of the naturalist is the figure of the western scholar: Charles Darwin, E.O. Wilson, Rachel Carson, and Jacob von Uexkull, known as natural scientists, have undeniably contributed to humanities studies. Literary studies that primarily study the ecology of, or in, literature, are Ecocritical studies. Ecocriticism, as influential literary theorist Cheryll Glotfelty defines it in the introduction to *The Ecocriticism Reader*, "takes an earth centred approach to literary studies" and works from the "premise that human culture is connected to the physical world" (18–19).

My ecocritical project studies oral, literary and artistic representations of an ecosystem as a bioregion experiencing the effects of climate change. Bioregionalism allows that literature about a particular culturally specific ecological place – a bioregion – can not only archive the relations between humans and nature in that bioregion, but can imagine potential re-arrangements in which humans might harm less and live more sustainably. A bioregion, as ecologists Peter Berg and Raymond Dasmann write, is "best described the people who [live] within it, through the human recognition of the realities of living-in-place" (82). That is, bioregionalism's particular contribution to ecocriticism is the premise that the literary and cultural arts about a home ecology promise valuable insight for sustainable living in that bioregion. I believe that, in the time of rapid ecological change resulting from recent global anthropogenic climate change, bioregional studies offer increasingly valuable insights.

Bioregionalism: An Ecocritical Context

Bioregionalism, as it first emerged in the 1970s, emphasized the environmental and political value of ecologically-minded community. In the 1970s activist Peter Berg began discussions about bioregionalism alongside anti-war, anti-consumerist and back-to-the-land movements. Peter Berg and Raymond F. Dasmann's 1978 essay "Reinhabiting California," the afterword to the influential anthology *Reinhabiting a Separate Country: A Bioregional Anthology of Northern California*, introduces bioregionalism as a process of

"[d]iscovering and describing resonances" within a particular "geographical terrain and a terrain of consciousness" (81). These resonances are among human and nonhuman "living things" (81). In this essay Berg and Dasmann introduce the idea of "living-in-place" as a practice of "following the necessities and pleasures of life as they are uniquely presented by a particular site, and evolving ways to ensure long-term occupancy of that site" (81). Berg and Dasmann describe a way of living that neither rejects human "civilization" nor accepts "short-term destructive exploitation of land and life" (81). Settler culture humans who live in place are "reinhabitants" whose desire to "fit into the place" require preservation, restoration, and maintenance of the home watersheds, forests, and soil systems, and native species populations of the bioregion (85). The notion of "reinhabitation" is akin to the contemporary idea of "sustainability," but it requires dedication to a home place ecosystem, attachment to and intimate knowledge of that home place, a desire to right past bioregional harm, and a willingness to adapt gently and humbly to the home place. Bioregionalism emerged as a life practice for (re)inhabitants of a continent already colonized, industrialized, and, in many places, polluted and harmed by colonial resource extraction.

Many of Berg's early bioregional essays, collected in activist-oriented *Planet Drum* anthologies, were utopic visions combining practical agrarian information, watershed maps of Northern California, and literary imaginings of peaceful, restorative human communities. This early bioregionalism was "a

proactive force in the environmental movement" that aimed to prevent "environmental crises by attempting to both imagine and create human communities that live sustainably in place" (Glotfelty et al. 4). While the degree to which utopic bioregionalism has prevented environmental crises is debatable, the influence of bioregionalism on art, culture, community organizing, and environmental movements is significant.

Literature and creative thinking have always had a place in bioregionalism. Literary studies and literary archives such as my project about the northern BC interior bioregion belong to the practice of imagining an ecologically astute and politically relevant way to live. Bioregionalism acknowledges historical and ongoing anthropogenic ecological damage, and rather than sending humans away to newer, cleaner territories, urges human communities to settle in, to reinhabit, and reimagine community in their home place. Bioregional literature contributes to cultural knowledge of the reinhabitation, sometimes very practically gathering ecological information in narratives about living in place. Bioregional literature also imagines the possible configurations of reinhabitation, and for this reason utopic literature figures in bioregionalism. Bioregional literary criticism asks how literature about a particular home place can contribute to sustainable culture.

Ecocriticism, broadly speaking, is the study of the representation of the relationship between humans and their non-human environment in literature.

Ecocritical analysis ranges from metaphoric analyses of natural phenomenon in literature to politicized ecological readings of literature as the site of reimagining eco-ethical relations. Ecocriticism does not always recognize the political and ecological troubles in human-nature relations, and while recent ecocritical conferences in North America acknowledged interlocking oppressions as present in narratives of ecological damage, ecological displacement, and territory, ecocriticism itself is not an inherently materialist or social field of study. Ecocriticism also sometimes studies literary representations of natural phenomena as representative of individual human desire, disregarding political, ecological or community context.

In this way, bioregionalism stands out as a form of ecocriticism that is interested in the particular, the material, and the contextual understandings of literature about the human and the natural. The literary configuration of populations of an ecosystem are *not* those of any other ecosystem, and literature about a bioregion necessarily takes on the demands and rewards of human life in that political, biological, and ethical ecosystem**.** My understanding and expectation of bioregional literary study is that bioregionalism reads and expects literary location to be an interlocking space of interests, potentials, and forces: the trees, the valleys, and the rivers do not stand in for human interiority, but rather, demand humans take account of political, social, and ethical responsibility to that very location.

Recent renewed literary interest in bioregionalism has brought intersections with postcolonial studies, cosmopolitan studies, transnational studies, and environmental pedagogy to bioregional literary studies. These junctures address tendencies towards regionalist or cultural essentialism in some bioregional studies and allow the wisdom of bioregionalism to adapt to anthropogenic climate change and neoliberal globalization. The 2012 anthology *The Bioregional Imagination: Literature, Ecology, and Place*, edited by Tom Lynch, Cheryll Glotfelty and Karla Armbruster collects bioregionalist literary criticism and advocates for a bioregional literary imagination that contributes to an urgently needed sustainable "[r]einhabitation" of places new and old, local and transnational, personal and collective (12-13). As a mode of literary analysis that admits empiricism, privileges site-specific knowledge, allows for occasional idealism, and is flexible enough to accommodate post-colonial and art theory analyses, bioregional literary criticism is the most appropriate lens for my pine beetle archive project. Lynch, Glotfelty, and Armbruster's anthology brings bioregionalism clearly into contemporary ecocriticism. *The Bioregional Reader* includes contributions on globalization and cosmopolitanism as key developments in bioregional studies.

So, in my literary project, I employ bioreiogal literary criticism, in a study of narrativres about the mountain-pine beetle affected bioregion of the BC Northern Interior. I study and I contribute to an archive of literary knowledge about living alongside the mountain pine beetle. While I do not imagine my

archive will necessarily create a more sustainable culture, I do expect that careful literary attention to the stories about living with the mountain pine beetle reveals a wealth of modes of adaptation and creation. It is this cultural imagination, this plethora of relations to the forests and grasslands of the BC northern interior, which proffers hope for sustainable reinhabitation.

While I reject Berg and Dasmann's vision of an Edenic ecology with permanently rooted human communities, I recognize the value in imagining and creating sustainable, peaceable human cultures in landscapes already marked by settler culture anthropogenic change. Since the mountain pine beetle is endemic to the pine forests, there is no "pre mountain-pine beetle" forest. Rather, a literary bioregional reinhabitation of the mountain-pine beetle affected forests is a reimagining of settler culture communities in the climate change lodgepole-pine forests, and as such is a cultural project of ecological (human and non-human) value. By intervening in the resource-extraction settler culture narratives that have prevailed for most of the past century, a bioregional literary reinhabitation could at least nourish human networks of trade and culture which regard ecological sustainability as a primary value.

That is, bioregionalism and sustainable human culture cannot exist in isolation of historical and ongoing ecological, political, and justice interdependencies. My project recognizes the value of community interconnections: I seek narratives which model human and non-human

community and mutual regard, rather than exclusionary practice, even if this exclusionary practice seems, at first glance, ecologically sound. In “Shadow Places and the Politics of Dwelling,” environmental philosopher Val Plumwood critiques tendencies towards individualistic politics in bioregionalism, in which the ecological and cultural self-sufficiency replaces a notion of ecological community as a networked, mobile, practice. Plumwood’s admires the motive towards “place honesty” and attention to the non-human in bioregionalism, but warns that ecojustice can be subsumed over highly introspective, self-righteous notions of self-sufficiency (144). Ironically, when self-sufficiency and an individualistic relation with the natural world become the prime acts of bioregional culture, the result can be a “form of denial of dependency” on the humans and non-humans who are “outside the system of privilege and self-enclosure” (144). In my project, for example, if the settler memoirs were treated romantically as narratives of intimacy with the land and the development of self-sufficient ecologically-based cultures, such a reading would ignore the mostly silenced narratives of First Nations, women, and workers. My reading notes the weaknesses in the settler memoirs, and my project hopes for a bioregional culture in the BC northern interior that understands sustainability as a culture of connectivity, interdependence and compassion.

As a practice of cultural and ecological interdependence and allegiance to an adaptive, changing, home place, I see bioregionalism as responsive to eco-harms. Hegemonic government and industrial responses to the mountain-pine

beetle are still unfolding, and annual allowable cut rates in BC are continuously negotiated. Bioregionalism can intervene in resource extractive attitudes towards the forests. Further, as anthropogenic climate change results in increasing ecological and social change, humans have an even greater need to adapt to their changing global *and* local homeplace, to "celebrate the continuity" of place, but also to adapt to the changing circumstances of species, soil, water, and forests (Berg and Dasmann 87-88). A bioregionalist perspective of settler literature, oral narratives, and art about the mountain pine beetle milieu before, during, and after the anomalous mountain pine beetle of the 2000s generates a clearer understanding of historical and recent ecological events and the potential for environmental sustainability and creative reinhabitation in settler culture in the British Columbia northern interior.

My bioregional mountain pine beetle archive includes a diverse cast of settler culture voices. Some texts I study are literary, others prosaic. Together, they contribute to a sense of place in settler culture in the BC northern interior mountain pine beetle bioregion. As bioregional literary critic Doug Aberley writes, the anarchist elements in Berg and Dasmann's Planet Drum publications, the collective agrarian resistance to centralization, and community preference for local knowledge over outsider "expertise" persist in 21st century bioregionalism. Aberley's recommendation for learning and practicing literary bioregionalism is that:

> Bioregionalism is best understood when viewed from the 'inside,' not from reading one or several texts. Gatherings should be attended, ephemeral periodicals reviewed, restoration projects participated in, and place-based rituals and ceremonies shared. . . . Without recognizing the diversity of voices from which bioregionalism originates, and the context-driven manner in which the bioregional movement evolves, academic critiques can only be short-sighted and reductionist. (31)

In fact, Aberley's recognition of the value of "ephemeral" texts and "gatherings" reflects my discoveries in the process of archiving the pine beetle chronicles. I gathered memoirs from gas station book racks, and spoke to a group of farmers sitting on stumps. I read popular and parochial settler memoirs that might otherwise garnish little academic attention. Since my archive collects narratives about the troubles and potentials for a settler culture relationship to the land, the texts I gather represent these narratives in their most "persistent and organic" mode (Aberley 38). Bioregional literary criticism is this collection, attention, and analysis of texts grounded in a home place. I take these texts with all of their literary, cultural, and geographic troubles and I suggest a mode of cultural reinhabitation for the mountain pine beetle bioregion. Like Aberley, I believe that bioregional cultural work proffers the "best hope we have for creating an interdependent web of . . . sustainable cultures" (38).

Clearly, bioregionalism has had to adapt not only to ongoing anthropogenic climate change, but to increased human mobility and increasingly globalized culture. In my project, I study parochial, essentialist settler literature that has little regard for cultural displacement and global movement. I study this literature in order to trace the contemporary cultural discourse of the pine forests as essential, unchanging, resources, and to seek imaginative departures from the troubles of the resource-extractive settler culture in the BC northern interior. The later art and narratives I examine acknowledge the complexities of living with a home bioregion, and certainly it is only with acknowledgement of human, ecological and economic mobility and fluctuation that bioregionalism can develop relevant imaginative models for the twenty-first century. In *Sense of Place and Sense of Planet: The Environmental Imagination of the Global* Ursual K. Heise argues that bioregionalism must include the "eco-cosmopolitan" vision of the "the planet as a whole" and should account for ongoing movements of culture across the earth (10). Bioregional art and literature, therefore, must find a way to seek environmental justice, address ecological harms, and allow for human culture that is not – cannot be – committed to a single bioregion (10). In a similar manner, in *Slow Violence and the Environmentalism of the Poor,* Rob Nixon criticizes bioregionalism's tendency towards parochial, reductionist, and even nationalist essentialism. Nixon calls out early bioregional writing and criticism, in particular, for "amnesiac celebrations of wilderness that mark an imaginative failure while masquerading as elevated imaginings" (242). A reading

of settler memoirs that only romanticized settler labour, or failed to acknowledge displaced First Nations people and a history of indigenous resistance to settler culture in BC would indeed by guilty of "amnesiac" reductionism and an "imaginative failure" (242).

The irony of bioregionalism's tendency towards romanticism essentialism and conservative notions of "place" and "nature" is that its origins are far more radical than the origins of literary ecocriticism. My project, a critique of settler resource extraction culture and a look at narratives that imagine alternative relations between settler humans and the pine forests, draws on this politically radical bioregional tradition. In the 1990 anthology *Home! A Bioregional Reader*, an essay by Gary Snyder, the canonical creative and critical writer of American ecocriticism, appears alongside writings by Starhawk (a spiritual ecofeminist utopian) and Murray Bookchin (known as much for his libertarian anarchism than his bioregionalist writings about social ecology). Bookchin was as interested in anti-capitalist rebellion as in farming and bioregional reinhabitation, and Starhawk's spiritual transcendentalism was meant as an alternative to dualistic thinking about nature and culture as oppositional forces. That is, bioregionalism is now mostly an academic, literary movement, but it has origins in activist publications *meant* to be polemic and polarizing. Contemporary scholars have reason to be uneasy with the tone of early bioregionalism and ecocriticism. Ecocritical scholars now grapple with environmental justice, animal rights, globalization, and migrant labour, as seen at the recent 2013 conference of the

Association for the Study of Literature and Environment which featured panels and guest speakers on these issues, as well as the upcoming Association for Literature, Environment and Culture in Canada conference 2014 with a theme of environmental justice. The value of early (possibly reductionist, probably polemic, usually utopic and essentialist) bioregional publications that emerged as politicized texts about environmental culture is apparent and my study recuperates these earlier texts to contemporary challenges.

My project is situated in the bioregion of the interior of northern BC, in particular, the home of the lodgepole pine and the mountain pine beetle. BC bioregional literature is situated in a particular ecosystem, and explores historical and ongoing human relations with the land and its inhabitants. Bioregional literature in BC is always also post or anti- colonial literature, as BC is home to ongoing land claims. This specificity of geo-political concerns in BC reflects the flexibility of bioregional literature, and the necessity for the ecological and the political to intersect. Berg and Dasmann describe a bioregion as “both geographical terrain and a terrain of consciousness . . . a place and the ideas that have developed about how to live in that place” (82). The boundaries of a bioregion, in this sense “can be determined initially by use of climatology, physiography, animal and plant geography, natural history and other descriptive natural sciences,” but for the purposes of bioregional literary studies, especially the narrative study I undertake, “the final boundaries of a bioregion are best described by the people who have lived within it, through the human recognition

of the realities of living-in-place" (82). In truth, I am not particularly concerned with rigid boundaries of the bioregions I study in this project. I attend to the the narrative and artistic echoes and soundings of the anomalous mountain pine beetle in a time of climate change in the northern interior of BC. Without a doubt, these resonances might extend globally, through the international timber trade, through the transmission of images and stories about the mountain pine beetle on the internet, and with the beetle population itself in its expansion to other pine forests around the world. For my project, I examine the narratives about the pine forests in the northern interior of BC, an area colloquially described as north of the Okanagan and Shuswap Valleys, south of the Yukon and Alaskan borders, interior to the coast, and west of the Alberta border. In the cultural and literary imagination of British Columbians, this is the "interior" of BC. For British Columbians, regions north of the Okanagan and Shuswap Valleys, while geographically central in the province, are referred to as "northern."

British Columbian bioregional literature contributes to an archive of cultural understanding of the natural history of British Columbia. This natural history archive is also an environmental and political present, including the movements of colonists, land theft and oppression of First Nations people, forced labour, and resource extraction. Books about BC bioregions contribute to an understanding of the challenges of reinhabitation. They offer, I believe, a hard look at the harms of colonial culture in BC, and a hope for sustainable reinhabitation. This includes archival studies such as such as William J. Turkel's

Archive of Place: Unearthing the Pasts of the Chilcotin Plateau, Laurie Ricou's literary natural history studies of the species *Arbutus* and *Salal*. Turkel's archive of the north-central interior bioregion and Ricou's archive of the coastal bioregion, employ a bioregional imagination, drawing on empirical as well as cultural knowledge of ecology and place. Ricou's breadth of study achives a bioregional map of a complex social territory and the role of plant and tree species in this territory. Neil Everden's environmental history of the Fraser River salmon, *Fish Versus Power: An Environmental History of the Fraser Review*, locates a single species in the political and economic colonial history of the south Fraser bioregion. These studies privilege the particular and the local, and consider human and non-human narratives as interdependent contributions to the stories and sustenance of an ecosystem. While Turkel's study foregrounds human struggles, particularly the process and effects of colonization in the Chilcotin Plateau, he prefaces his study with a lengthy geological history, ultimately linking geology to physical geography, human populations, and historical and recent events. Like Turkel, Everden studies relations between humans and geography, focusing on the salmon of the Fraser River during and since early colonial interventions in the movements of fish. Everden's study, as it includes the cultural and biological forces in a particular bioregion, and as it suggests that improved relations between humans and waterways can – and will – be possible, even includes the utopic element of many bioregional studies. And Laurie Ricou's charming and rigorous books bring literary attention to flora

species of coastal British Columbia, showing how successfully cultural and scientific narratives can combine to build a compelling bioregional text. I take inspiration from these works, and I contribute to the British Columbian bioregional imagination with my study of the mountain pine beetle in the northern interior of BC.

My bioregional literary study of the BC northern interior draws connections between settler conceptions of the pine forest and non-human organisms and the recent anomalous mountain pine beetle. In a similar manner, Turkel's study draws connections between geological forces, colonial mineral exploration in BC and twentieth century First Nations and white land claims in BC. Turkel's study stresses that in order to understand current geo-political and environmental relations in the Cariboo-Chilcotin, humans need to understand the provenance of the geological and cultural elements of the region. This understanding comes about through reading of the "indexical markers" of geological, historic, and contemporary bioregional movements across the land. In my intervention, I examine settler culture memoirs for an understanding of the provenance of the contemporary settler culture responses to the anomalous mountain pine beetle. Further, I seek models and modes for building a politically and ecologically sustainable culture in BC.

In British Columbia First Nations land claims and rights to land use are complex, pressing, and overlapping. No bioregion in BC, either imagined as a

literary space, an ecological space, or a geopolitical territory, should elide historical and contemporary First Nations land rights. My project identifies settler culture as that with the greatest need for bioregional intervention. Settler culture, dedicated to resource extraction and capitalization of ecosystems, is awkwardly responding to the mountain pine beetle. If settler culture is to sustain peaceable relations between all organisms in BC, especially in light of climate change events such as the anomalous mountain pine beetle, it must recognize and learn from First Nations culture, land claims, and land use. As well, settler culture should examine its own relation to the land, and my project takes up that examination. That is, since I see my project as a response to a problem, and I identify that problem as the relationship between settler culture and nature as exemplified in the event of the anomalous mountain pine beetle, my primary sites of analysis are the narratives of settler culture in BC.

My attention to First Nations narratives and, particularly, to colonial resistance is limited in this project. In some settler memoirs, for example, there are conflicts between settlers' dedication to living well on the land and their disregard for First Nations rights to, and knowledge of, living well, sustainably, and rightfully on that same land. The bioregional imagination of living sustainably is shallow without recognition of First Nations land rights. While I note this problem, my project aims to explore and intervene in white settler cultural discourse, and therefore focusses on white settler culture narratives.

There are between 30 and 40 major First Nations ethnic affiliations in BC, and for most registered Aboriginal individuals, the band is "the primary unit of administration" (Muckle 5). That is, rights to land use, tax regulations, and other legal rights are negotiated individually through the band, which as defined by the Indian Act in 1989, is "a body of Indians . . . for whose use and benefit in common, lands, the legal title to which is vested in Her Majesty, have been set apart" (Muckle 5). Bands themselves are neither ethnic nor linguistic categories, and may be amalgamated, created, or declared extinct. Beyond the band, a tribal council may encompass more than one ethnic group as an administrative and economic organization, especially when land use negotiations or conflicts with the Province of British Columbia are active.

My project examines narratives about land that is home to the Secwepemc, the Dakelh, and the Tsilhqot'in nations. Also known as the Shuswap, the Secwepemc Nation territory extends from the Columbia River valley on the east slope of Rockies to the Fraser on the West and south to the Arrow Lakes. The Dakelh Nation, also known as Carrier, have territory along the Fraser River from North of Prince George to south of Quesnel, East to the Rockies, and West to Nuxalk territory. Also known as the Chilcotin, the Tsilhqot'in Nation's territory is west of Williams Lake to the inland lea of the Coast mountains on the west side of the Fraser and includes the wide high Chilcotin plateau.[1]

[1] Nation refers to an ethnic identity. A First Nations person usually also belongs to a band, such as the Burns Lake Band, which is part of the Dakelh Nation. The Burns Lake Band is represented

First Nations geopolitical organization is not congruent with settler culture social organization. Ethnicity and language can change with marriage, and First Nations men and women move between bands and even Nations. The notion that private property should remain with a single individual who remains vested in the ownership and boundaries of a particular unit of land often conflicts with traditional First Nations geopolitical organization. In fact, the degree to which bioregional narratives, particularly back-to-the-land narratives, require private ownership for the practice of land stewardship, bioregionalism can suffer from a *lack* of geopolitical imagination and acquiescence with settler culture projections of land as unclaimed, unoccupied, and in need of resuscitation. Owning land is often equated with being a steward of the land, particularly in back-to-the-land narratives. I see this as a deep-rooted problem in BC settler culture relations to the land and natural resources. The scope of my project, and my focus on literary and artistic expressions of bioregional thought, limit my ability to resolve this problem in this project. I see an intervention with settler culture geo-political dedication to private ownership in the BC interior as an important future project.

My pine beetle chronicle assembles evidence that the beetle-affected territories of the BC northern interior have produces a cultural and geographic

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by the Carrier-Sekani Tribal Council. The Carrier-Sekani Tribal Council has eight members: the Burns Lake Band, the Nadleh First Nation, the Nak'azdli, the Saik'uz First Nation, the Stellat'en, the Takla First Nation, and the Tl'azt'en Nation, and the Wet'suwet'en First Nation. Also, in the BC Interior, the Carrier-Chilcotin Tribal Council has four members: the Lhoosk'us Dene, the Red Bluff Indian Band, the Toosey, and the Ulkatcho Indian Band.

bioregion, and that this territory, newly affected by the mountain pine beetle, presents an intervention to resource-extractive settler culture. Further, I believe that a bioregional cultural reinhabitation requires at least a rudimentary awareness of empirical ecological facts. That is, to know the bioregion, to talk about the lodgepole pines as bodies grounded in diverse, changeable, and rich bioregions, one must know what a lodgepole looks like, how tall it might grow, and how it grows and thrives, as well as how it dies. For this reason, I refer to methods of mapping ecological regions as I develop a bioregional reinhabitation of the northern interior of BC. In my project, as I locate narratives and texts in bioregional particularities, and decide how they intervene in resource-extractive settler culture, I name and discuss the trees, plants, and animals in the texts. I have selected the system of Biogeoclimatic Zones (BEC) system for classification. The BEC system has been adopted by many foresters and scientists working in BC, and itself has epistemological roots in environmental thinking of the 1970s, some of it closely related to bioregional landscape architecture studies. The BEC system recognizes a degree of complexity across space and time, allowing for shifts in organic populations. A BEC is classified as "an area with a certain typical combination of major species of trees, shrubs, herbs and mosses (the 'bio' part of the term), characteristic soil-forming processes ('geo') and a broadly homogenous macroclimate ('climate') (Fenger et al. 112). The BEC zones are continually updated by biologists and foresters, and in this way resemble the adaptive, fluid notion of a bioregion.

Of BC's 14 BEC zones, 8 pertain to my chosen area of study:

BWBS: Boreal White and Black Spruce

ESSF: Engelmann Spruce-Subalpine Fir

IDF: Interior Douglas Fir

MS: Montane Spruce

CDF: Coastal Douglas Fir

CWH: Coastal Western Hemlock

ICH: Interior Cedar-Hemlock

SWB: Spruce Willow-Birch

These are the BECs in which lodgepole pine trees currently grow. In ESSF, SBS, CDF, and ICH, lodgepole pines are abundant. In the remaining 4 BECs, lodgepole pine is common. Significantly, these BECs are the milieu of the mountain pine beetle and the sites of some of the most remarkable natural and anthropogenic landscape change since colonial contact in BC.

Lodgepole pine forests are the BC interior forests that have been the most empirically altered by colonial settler culture. Through clearing for ranchland, intensive logging, replanting, and fire protection, these forests have been radically altered. Lodgepole pine forests in BC resemble a garden, a plantation, or a farm more than an untouched wilderness. Understanding the mountain pine beetle and the affected human and animal communities around

the pine forests requires some knowledge of lodgepole pine patterns of growth, death and regeneration.

Lodgepole pine, thin-barked and easily felled by fire (other trees in the central interior of BC, like Ponderosa Pine or Cottonwood, often withstand forest fires), rarely lives longer than 300 years, and certainly almost all lodgepole pines in BC are currently less than 75 years old (Parish et al. 35). In many (but not all) lodgepole pines, the cones are sealed with a resin that needs the heat of forest fires to melt. Thus, a "tremendous amount of seed" builds up in lodgepole pine stands between fires, and in areas that have grown in after a forest fire, "densities of lodgepole pine as high as 100,000 trees per hectare are not unusual" (Parish et al. 35). A dense, evenly aged stand of lodgepole pine is a perfect environment for mountain pine beetle. Thus the cycles of endemic and epidemic bark beetle match the succession of lodgepole pine forests.

The lodgepole pine has the widest range of environmental tolerance of all North American conifers, grows in all the forested BECs of BC, and is most widespread in the cool, dry parts of the BC interior. Lodgepole pine is most dense in central and northern-central interior regions of BC, away from the political centres of power in the province, densely covering thousands of hectares of mountain, plateau, and valley (Parish et al. 35)**.** Accursed by ranchers and farmers, planted and harvested by foresters, this tree has always played a role in the colonization, inhabitation, and commercialization of BC. The effect of

the anomalous mountain pine beetle on this tree is thus a web of consequences for a vast cultural and ecological bioregion.

The BC interior, from the southern to the northern regions, has seen a marked increase in temperature. In the central interior, the climate has increased by 1.1 degree Celsius, and in the northern interior by 1.7 degree Celsius (BC Ministry of Environment). Recent anthropogenic climate change affects the region. In that I am studying a manifestation of this climate change, my project reveals human contribution to climate change (in my study of settler commodification of the land) and human response to climate change (in my study of oral, textual, and visual bioregional art about the mountain pine beetle forests). So, while I express no polemic recommendations for environmental action in a time of climate change, my study posits the generative potential for reinhabitation, imagination, and perhaps sustainable relations in the climate change bioregion of the lodgepole pine and the mountain pine beetle. These are changing bioregions.

Since communities and cultures might overlap (and will certainly change over time) in their attachments to regions, no definition of a bioregion can be final. In my project, for example, I am interested in the bioregional literature and art about the mountain pine beetle forests of the northern interior of BC. In *Xerophilia*, Tom Lynch uses the term *bioregion* for the vast and diverse American Southwest region. His argument that bioregional literature about the American

Southwest displays unique attachment to desert ecologies allows for a broad definition of "bioregion." On the one hand, a region only becomes a bioregion with long-term cultural history, biophilic attachment, and dedication to reinhabitation – thus demanding a rigorous depth of knowledge before a region can properly be studied as a bioregion. In each chapter of my project, while the literature and art I study share the common bioregional factor of being in and about the ecological milieu of the mountain pine beetle, they create diverse bioregional communities. The earliest settler memoirs I study build bioregional attachment to a heavily forested province before climate change and the anomalous mountain pine beetle. Each memoir describes a different watershed, shares relations with a different set of species, and draws different boundaries of a home place. This diversity of bioregional boundaries continues throughout my project, and the unifying bioregional element is the presence of pine trees and, eventually, the mountain pine beetle.

The Mountain Pine Beetle Chronicles: A Bioregional Ecocritical Study

My project studies cultural production and response to a creature with few defenders and even fewer enthusiasts. Humans have little control over the future success or failure of the mountain pine beetle population. However, humans do have the capacity to organize, plan, and carry out silviculture, and in doing so, practice ecology with the mountain pine beetle as an interdependent species. In this sense, the mountain pine beetle maps a bioregion of its own making, beyond the anomalous pine forest ecology. While no single species acts

alone, an endemic species like the mountain pine beetle can significantly alter ecological relations in a bioregion. Any notion of a *balanced* bioregion, in literary, cultural, or ecological narrative, is challenged by the appearance of the endemic, bothersome, mountain pine beetle.

Because while the mountain pine beetle is an indigenous species, its representation as an invasive pest disrupts any utopic vision of a perfectly balanced and ideally *local* complete bioregion. That is, the mountain pine beetle is local even when endemic and invisible to human perception. Thus, as the beetle erupts into biotic signification, altering the landscape so radically that no human can deny the beetle's existence, it presents a paradoxical problem to environmental or bioregional dedication to an ethic of the local. The mountain pine beetle's local origin does not, it seems, make it any more charming. This move from the marginal to the significant is not entirely unlike that of a feral animal that moves from belonging to not-belonging, and in both positions troubles the notion of the beautiful bioregion In "'Fully Motile and Awaiting Further Instructions': Thinking the Feral into Bioregionalism," Anne Milne argues for the importance of feral species, those which are neither domestic nor wild, to bioregionalism (330-331). The discomfort that the feral brings to the sometimes tidy manifestations of the locally bound bioregion, is also that which "throws place open to its ineffable vicissitudes" (331). Milne argues that feral species prevent bioregionalism from settling into a precious domestication of eco-cultural insights. In the bioregional feral imagination "change, coevolution and

new knowledges can be simultaneously and exquisitely marginal, folded into place, and revelatory" (332). The mountain pin beetle's epidemic cycle brings it to a position analogous of Milne's "revelatory" feral species. Thus, in the same way that Milne includes feral populations in a bioregional imagination of living sustainably in place, the epidemic-endemic (and now, anomalous) mountain pine beetle has an important place in bioregional imaginings of living sustainably in the BC northern interior. Like a feral population thriving in the wild, the anomalous mountain pine beetle has adapted well – spectacularly – to human intervention in the *local* ecosystem. The ensuing disturbance continues to provoke literary, scientific, and political understandings of the BC northern interior.

How, for instance, should humans live sustainably in a landscape overrun with a local, and extremely healthy, bark beetle? How should a human approach a lakeshore darkened with the effluent of millions of beetle bodies, crunching underfoot like the tactile calling card of ongoing anthropogenic climate change? Is the very bioregion of the BC northern interior, or more specifically, the mountain pine beetle milieu of the range of the lodgepole pine, changed completely, or partially, or not at all by the effect of the mountain pine beetle on vast forested areas?

My first literary question for the pine beetle chronicles is *what has happened in this bioregion*? How have the narratives of settler culture in British

Columbia come to disregard such basic ecological understandings as the interdependence of multiple species in favour of a manner of thinking so reductionist that it ignores the complexities – or perhaps the very existence – of BC northern interior ecosystems? In which circumstances, narrated by which individuals with what kinds of unexamined privilege, might this reductionist model show fissures? And in these fissures, is there potential for ecologically sustainable rather than strictly exploitative human/non-human relations? I seek understanding of the narratives of the human-nature relationship in settler culture in the BC northern interior. Further, I seek literary and artistic evidence of settler culture awareness of ecological complexities and ecological interdependence in the BC northern interior. The bioregional imagination, in my project, prospects literature and art for a mode of sustainable bioregional reinhabitation.

However, I do not seek a utopic conclusion, or a state of sustainability as a set of literary lifestyle accommodations. While most models of bioregionalism assume that sustainable living, even in previously exploited and colonized lands like the forests of BC, can be achieved through cultural and scientific means, I remain skeptical of the uses and abuses of the notion of *sustainability*. In *Hijacking Sustainability*, philosopher Adrian Parr details how the American military, WalMart and investment banking have adopted "sustainability" plans, replacing commitment to communal, shared sustenance with a self-interested sustenance. This movement of sustainability towards alignment with monadic

state capitalism need not signal the dissolution of meaningful ecological discourse. A return to – a *recycling of* – the 1970s bioregional notion of sustainability as an ecological ethic cognizant of a human/non-human shared need for sustenance, shared patterns of unpredictability, and a shared desire to live, if applied rigorously, would show the vapidity of capitalist capture of *sustainability*. This rigor, along with my sustained skepticism, demands that bioregional art and literature about the northern interior of BC recognize the lives, deaths, and forces of non-humans. That is, I agree with Glotfelty et al. when they state that while the term has been appropriated for purposes ranging from aesthetic to outright consumerist, and that Suncor Energy calls itself "sustainable . . . even as it ravages Canada's boreal forest . . . *sustainability* is a valuable term that is worth fighting for" (5). As a reference to the practice of living in a place in a manner that ensures the existence of future generations with no "deleterious impact on the environment," *sustainability* still deserves consideration within discussions of environmental ethics (5). My project's search for sustainability narratives in the bioregional culture of the mountain pine beetle milieu begins with twentieth century settler literature.

Method of Analysis: Choosing Primary Texts

For my study, I selected four white colonial settler memoirs, two works of poetry, and three works of visual art as primary texts. I selected works in which the

authors and artists specifically wrote about or represented the lodgepole pine forests of the BC Northern Interior. I sought a range of primary materials, and sought to present a representation of the white settler colonial narratives of colonizing, living with, and interacting with the lodgepole pine forest bioregions of the BC Northern Interior. This selection allows me to examine white colonial settler narratives of the forests and land, and to both trouble the oppressive, resource-extractive narratives in these texts and seek potential fissures in these narratives. While a broader study would seek oral, written, and artistic narratives authored by marginalized, disempowered, and non-white authors, my study's aim is to understand and trouble the powerful and ongoing white colonial settler discourse about the Northern BC Interior.

I also interviewed nine settler culture individuals for this project. I advertised for interview subjects with a poster approved by the University of Alberta Research Ethics Board, and received email and phone queries. The respondents asked me to interview them, and passed along my contact information to other contacts and potential interviewees. I asked each interviewee questions about their history with the lodgepole pine forests, how their interactions with the pine forests may have changed over time, and whether they had any particular stories or memories about the pine forests that they wished to share with me. I asked interviewees about how they first learned about the Mountain Pine Beetle, and whether they had any stories or memories of the anomalous Mountain Pine Beetle they might wish to share with me. Further, I asked participants how they viewed the changes to the forests, and how they felt those changes affected their communities. In the interviews I sought to allow interviewees to narrate their history and ongoing relationship with the pine forests in a manner they were comfortable with. I sought the intervieweees' bioregional narratives. That is, the

interviews resulted in narratives about living in place, and living alongside the radical landscape change brought by anthropogenic climate change in the form of the anomalous mountain pine beetle.

I represented, and wrote about, all the interviewees' encounters with the lodgepole pine forests during and after the anomalous mountain pine beetle, with particular focus on how each interviewee continues to live with the social and ecological changes that the mountain pine beetle has wrought. I met the interviewees at a location of their choosing: this was sometimes a private home, a collective farm, or a public place such as a restaurant or coffeeshop.

In the third chapter of this dissertation, I write about visual and poetic artistic narratives and images of and about the lodgepole pine forests and the anomalous mountain pine beetle. While there has been a considerable volume of popular non-fiction writing about the mountain pine beetle in magazines, newspapers and on radio and television, I sought creative representations that questioned the nature of the relationship between humans and the mountain pine beetle bioregion during this time of anthropogenic climate change. Therefore, I do not present a completely representative archive of all creative work that responds to the anomalous mountain pine beetle: poetry, art, and film continue to be produced on this topic, and certainly I did not unearth all the works relating to this topic. However, in choosing poetry, installation, drawing, and painting, and in seeking works that question the ways that the mountain pine beetle and white settler culture are mutually constitutive in their bioregions, I produce a picture of how art and poetry contribute to a bioregional understanding of white settler culture in the mountain pine beetle bioregion.

Chapter Summaries

In Chapter One, I read settler literature about Northern BC. These memoirs record the laborious travel to and settlement of a geography romanticized as wild, empty and dangerous solidified the colonial metanarrative of the settlement and civilizing of BC. In settler memoirs of the first half of the twentieth century, men of action narrate their exploration and control of the BC northern interior. The region is represented as either conducive or resistant to exploitation, and while there the memoirs marvel at the size of the forests, or the diversity of wildlife, they are mostly centred on the successes of hunting, trapping, and ranching.

The settler memoirs express the desire for bioregional belonging to a home ecosystem along with a rapacious desire to natural resources, and thus reflect colonization of British Columbia in the 20th century. These memoirs are the genealogy of contemporary settler culture environmental thinking. The practice of reducing complex bioregions to those factors that most influence the economic species *de jour* is evident in ranching narratives in which lodgepole pine forests are pesky, gloomy growths in the way of grassland. In the twenty-first century, now that pine forests are more valuable than grasslands, the valued species is different, but the tendency to reduce complex bioregions to a select few species is the same. I have chosen to focus my study on two of the most widely read and locally popular settler memoirs, Eric Collier's narrative of reinhabiting a watershed in the Chilcotin region, *Three Against the Wilderness*,

and Rich Hobson's cowboying account of ranching in the Chilcotin region, *Grass Beyond the Mountains*. Hobson's memoir contains little bioregional awareness. The land is antagonist or supplicant, but rarely a living bioregion. I read Hobson's memoir to show the troubles of living voraciously *from*, rather than living respectfully *with*, a home place. However, in some instances, Hobson develops an unavoidable intimacy with the land. Although this intimacy does not become biophillia, and spurs no reinhabitation practice, there is a potential of bioregional perception in *Grass Beyond the Mountains*.

Collier's restorative memoir takes up the bioregional perception and reinhabitation that most settler memoirs neglect. *Three Against the Wilderness* is attuned to the needs of a particular watershed, is rooted firmly in that watershed and the surrounding forests, and expresses some respect for indigenous knowledge (although no respect for indigenous hunting and land rights). I read Collier's memoir alongside Felix Guattari's *Three Ecologies*. In *three ecologies,* Guattari articulates a system in which three elements: an ecology of mind, a respect for social ecology in the home community, and restoration of the non-human environment contribute to an *ecosophy*. The interconnections between the social, the mental, and the environmental spheres of an ecology promote, for Guattari, a rich and pluralistic opportunity for growth and life. The spheres are at once unique and overlapping, and only with acknowledge of all three can a human-occupied ecology sustain life. I find Guattari's theory synchronous with bioregionalism. Guattari's recognition of the need for

simultaneous, but different, social and environmental justice echoes the political concerns of Berg's early Planet Drum publications. Guattari's theory of the three ecologies allows for analysis of literature about emergent environmental thinking such as that found in settler memoirs. Eric Collier's narrative of bioregional watershed restoration in *Three Against the Wilderness*, a settler memoir about family, ecology, social relations, and individual reflection, is a work of rich bioregional imagination, and is, I believe, also a narrative of three ecologies.

There is some continuity from the BC settler memoirs of the early twentieth century to the more bioregionally focused back-to-the-land memoirs of the 1970s and 80s. Like many BC settler memoirs, BC back-to-the-land memoirs reject urban life, America, and material luxuries. Unlike most settler memoirs back-the-land narratives eschew capitalist gain and embrace alternative ideologies. Bioregionalism was influential to the back-to-the-land movement 1970s and 80s. Peter Berg and his Planet Drum Foundation advocated ecological and cultural restoration of what they saw as greedy, harmful, materialistic culture. Planet Drum publications provided instructions for living in small farming communities rooted to watershed bioregions. The complexity of the back-to-the-land movement has not been adequately explained by social historians. While some records state "that one million people" moved to small, rural, farms in the 1970s, there is only study to support

this claim, and, according to historian Dona Brown, that study is thin on data (206).

What is certain is that the urban, white, educated protagonists of back-to-the-land memoirs movement have much in common with the adventurous, self-reliant, urban exiles in settler memoirs, and that this spirit of exploration is relevant to contemporary perceptions of the lodgepole pine forest as a home to (or as invaded by) the mountain pine beetle. To the degree that the forests exist as a dramatic setting for individual discovery, the mountain pine beetle is a pestilent detraction to a narrative of success. If the forests are understood as complex bioregions in which humans strive to live sustainably, the mountain pine beetle population of the 2000s contributes to a bioregional literary – and ecological – imagination of the northern interior of BC.

The settler memoirs and the later back-to-the-land memoirs, studied together, suggest that inhabitation of the northern interior of BC has a number of models, including small scale co-operative living, and might include awareness and respect for biodiversity of human and non-human inhabitants of the bioregions. In my project I write about one of the only published back-to-the-land narratives set exclusively in the northern interior of BC, Christine Peters' *The Lure of the Chilcotin*. Peters' memoir includes detailed descriptions of living off the land, including trapping, hunting, and building shelters. The most compelling and most voluminous aspect of her memoir is the introspective,

highly emotional account of her relations with the forest and with other humans. The last memoir I examine in this chapter is June Woods' *Nechako Country: In the Footsteps of Bert Irvine*, and while I only discuss her memoir briefly, Woods' memoir is important because it reflects on early twentieth century colonial settlement and struggles to understand twenty-first-century resource extraction in the Nechako River bioregion. Woods discusses the mountain pine beetle forests, the intrusion of logging roads to what she perceives as peacefully inhabited forest regions, and the interdependence of humans, forests, and animals in the region she and her family have lived in for three generations.

Chapter Two of this project is polyphonic, bringing together contemporary oral narratives from people living with the Mountain pine beetle**.** I interviewed a small group of nine men and women who have lived in Northern BC since 2004 or longer and have thus been affected by the mountain pine beetle. These interviews highlight changes to the composition of the forests, the movement of wildlife, and the relations between humans and their natural environments that are a result of the anomalous mountain pine beetle population of the 2000s. As such, in this chapter I present stories of emotional and material exchange between beetle, forest, animal, and human. As I interview the participants I remain open and curious about their expressions of desire, regret, longing or anger in response to the anomalous mountain pine beetle. In some cases, the mountain pine beetle is feared much like the lodgepole pine forests were feared and hated by early ranchers. In other

interviews, residents speak of the anomalous mountain pine beetle as an overwhelming but inevitable result of anthropogenic changes to the forest composition. These interviews are about adjustment to rapid, intense, bioregional change, and what I learn from the interviews is relevant to all human communities struggling to adapt to the effects of climate change in their home environments.

This was once my home environment. I grew up on a small back-to-the-land farm in the Cariboo region of the BC northern interior, close to Lone Butte and Horse Lake. Our acreage was mostly lodgepole pine, with a poplar grove and a pasture for one, sometimes two, cows and a small flock of sheep. An unnamed creek ran through the poplar grove and ferns and willows crowded the poplar understory around the creek. The winters were long and cold, and snow was deeper in the 1980s since it has been in the 90s and the 00s. The summers were short and warm and huge clouds of dragonflies rushed through the pine-green air. Even if I wished to I could not avoid being affected by the changes the anomalous mountain pine beetle and climate change have brought to the BC northern interior forests. I was not able to adopt an objective epistemology in my interviewing, my analysis of the interviews, or in the writing of this chapter. These pine forests are my site of recognition of this ongoing anthropogenic climate change and ecological shift. It is only because I know these forests so well that I can recognize the immensity of their change: from this recognition I have been able to move towards research, analysis, and formal argument.

However, I remain personally invested in the state of the lodgepole pine forests and the humans and non-humans who call these forests home. My open comportment, while a sometimes dizzying experience, attuned me to a greater understanding of the interviewee's particular imaginations and hopes for their home bioregions. I share their hopes that the forests of BC interior can be reinhabited thoughtfully, and that humans can live in sustainable relations with the plants and animals of their bioregion.

The anomalous mountain pine beetle population, as I show in the interviews in Chapter Two, propels humans towards greater awareness of the complex relations in their home bioregion. Such a bioregional shift is destabilizing, and humans are variously receptive or resistant to this destabilization. While some of the people I interviewed were able to reconfigure their relations to the ecosystems and understand the forest as a non-threatening chaotic space, others were overcome by the scale of the changes in their landscape. Environmental educator Mitchell Thomashow's pedagogy for understanding climate change calls for empirical perception of the home place, and I found some residents were more able than others to perceive the mountain pine beetle as a living agent in their home bioregion. The perception of home place, Thomashow explains, is challenged by the effects of climate change, and the process of (re)learning one's bioregion can be slow and difficult.

In Chapter Three, I find and investigate art and poetry about the pine forests, ecological change, and the mountain pine beetle in the northern interior of BC. I find that, in this poetry and visual art, the potential of the bioregional imagination – a "terrain of consciousness" as Berg and Dasmann write – comes to the clearest fruition (82). Literary critic and writer Tom Lynch's call for multisensory bioregional poetry and art theorist Amanda Boetzkes' recent work on the ethics of "earth art" inform my reading of both the poetry and the visual art about the pines and beetles in BC.

My reading of the poetry, installations, drawings, and paintings in Chapter Three maps a reinhabitory bioregional BC interior forest. This forest, in which pine trees regenerate grasslands, carbon echoes generations of forests, and mountain pine beetle populations are in dialogue with humans is the site of creative reinhabitation. Literary and visual art and artists, I conclude, play an essential role in human communities' abilities to adapt to climate change. A bioregionalist perspective of settler literature, oral narratives, and art about the mountain pine beetle milieu before, during, and after the anomalous mountain pine beetle of the 2000s generates a clearer understanding of bioregional literary and cultural practice in settler culture in the British Columbia interior.

My project, in content and purpose, is bioregional. The process of writing this mountain pine beetle chronicle has built my own affiliation with the lodgepole pines of the BC interior, the ponderosa pines of the southern interior,

and, by way of literary curiosity, the jack pines of central Canada. My project brings readers close to the BC interior bioregion, engaging their own curiosity and deepening their knowledge about the historic and ongoing conditions of settler culture in the BC pine forests. My project suggests modes of sustainable culture, and shows how art and cultural work can ask ecological questions. My project interrupts the reductionist resource extraction discourse in which trees are units for consumption, and celebrates settler culture potential and insight for a more peaceable culture during a time of climate change and radical landscape shift. Together, these materials create a bioregional archive of the mountain pine beetle and settler culture in the BC northern interior.

CHAPTER ONE[2]

"THE VASTNESS OF THE JACK PINES": A BIOREGIONAL STUDY OF SETTLER MEMOIRS IN THE FORESTS OF THE BC NORTHERN INTERIOR PINE FORESTS

I have found in settler literature instances of potential bioregional thinking that contradicts its otherwise overarching commitment to a colonialist ethos of resource extraction and land exploitation. And while I show the troubles in settler literature as symptomatic of the ongoing reductionist model of land exploitation that plague BC culture more than the mountain pine beetle, I also find potential for a literary imagination to revise the BC interior's ecological practice. The challenges of the mountain pine beetle and of other impending climate change related phenomenon demand this reckoning with settler past, and present an urgent opportunity for cultural change. This change to resource extraction and land exploitation must occur as a result of settler culture self-examination and, and for this reason I focus on settler narratives rather than First Nations narratives.

All of British Columbia is the site of multiple and overlapping unsettled land claims, and is a colonial – far from a *post* colonial – province. Environmental sustainability, then, exists as a political challenge, inextricable from colonialism. Barry Lopez's *The Rediscovery of North America* accurately describes environmental destruction as a legacy (and ongoing practice) of colonialism. I

[2] A version of this chapter has been published in: Lynch, Tom, Glotfelty, Cheryll, and Armbruster, Karla, Eds. *The Bioregional Imagination: Literature, Ecology, and Place.* University of Georgia Press, Athens, GA: 2012.

propose that, even with these problems of colonialism and the continuing refrain of large scale resource extraction, settler literature is bioregional literature. As narratives about living on and with a "new" land, the settler memoirs of BC written between the 1920s and the 1960s are narratives of former urbanites learning about weather, watersheds, grasslands, and forests. And while the memoirs are sometimes unapologetically solipsistic, charting the rise of a hero against a terrifying wilderness, they articulate a theme of fear and desire in the northern interior of BC that matches anxieties about the mountain pine beetle forests in the 2000s. More recent settler literature recounts 1970s back-to-the-land culture, a culture directly related to Peter Berg's first bioregionalist publications. In the 1990s and 2000s, settler memoirs address environmental damage and wrestle with conservation and resource management. Relations between humans and non-humans and between humans and land are at the heart of these memoirs, and without a doubt these are bioregional texts about a sense of place. In the early 2000s, a century into large scale resource extraction in British Columbia, the anomalous mountain pine beetle demands a reckoning of settler culture relations with forests and animals. My study of BC northern interior settler memoirs explores these relations, seeking bioregional knowledge for living with, restoring, and reimagining a home bioregion.

Still, in most early twentieth century settler memoirs, the narrators are dedicated to the myth of western expansion led by heroic colonists. Derogatory racist commentary, patronizing eurocentric lectures or willful ignorance appear

in these memoirs. Often, settler memoirs frame Northern BC as a cartography of natural resources awaiting "discovery" and extraction rather than as a bioregion with value beyond the economic. Bioregionalism includes a recognition of the bioregion as a home place alive with ecological and cultural relationships. Thus, most settler memoirs are *not* bioregional narratives about attachment to a complex home place. Rather, the land is often represented as a passive setting of settler intentions. Helen Tiffin and Graham Huggan write that the reification of a "wilderness," the rapid destruction of that wilderness, and the forced removal of the indigenous population of the colonized place are the historical and continuing process of colonization (184-187). Even when the colonists belatedly create wilderness preserves or strive to protect a species, this conservation effort is usually undertaken at the expense of – or at least the disregard of – indigenous populations (185-7). For example, Eric Collier's 1959 memoir *Three Against the Wilderness* is partially a narrative about ecological restoration and species protection, and Collier and his family respect cultural and ecological relations. However, protection and any ensuing compassion extends only so far as the animals and their ecology provide a settler-culture resource. Collier does not acknowledge First Nations land claims, nor does he truly respect First Nations community knowledge.

The manner in which Collier and other settler memoirists value a natural environment rich in economic resources is neither unusual nor necessarily harmful, and can contribute to a bioregional sense of place. To "imagine and

create" sustainable human communities living in a home place, the resources should be assessed as part of the home biosphere. However, the reductive framing of northern BC as a resource-rich land trumps the complexity, history, and continuity of indigenous people, plants and animals not assigned limited resource-culture value. This extends even to seemingly well-meaning conservationists such as Eric Collier. I am curious as to how this thinking informs the current reception of and reaction to the mountain pine beetle.

That is, when organisms are valued primarily as capital interests, life that threatens capital is either rejected from settler definitions of the "natural" (hence the mountain pine beetle population is widely regarded as an unnatural epidemic) or is assigned a minimal value within the resource extraction valuation of the region. For example, In *Three Against the Wilderness,* wolves are valued less than beavers, and are thus hunted and hated rather than protected. A bioregional study of this literatures asks to what degree the memoirs imagine BC as a diverse, living, occupied home space, even (or especially) when such a bioregional imagination conflicts with desire to reduce the bioregion to a profitable resource.

Settler memoirs can also be understood as colonial labour narratives. Not to be confused with collective labour narratives, the settler's labour is framed as individual, heroic, and private. Communities of settlers sometimes come together, and married partners find solace in their side-by-side work, but for the

most part the memoirs regale the adventures of a cowboying individual. These working stories are now celebrated as local histories – settler memoirs are widely read in their original settings, even a century later, another reason they might hold bioregional insight for contemporary sustainability. Environmental theorist Richard White suggests that these historical representations of settler work contribute to the belief that the geographic and political history of a colonized region belongs to the white settler. Thus the perpetual reading of early twentieth century memoirs strengthen territorial claims to land, repeating the refrain of settler ownership of land through settler "discovery" and "work." In memoirs and local histories, labour undertaken by First Nations is either ignored or is collected as anecdotal ethnography, quaintly considered natural and collective rather than heroically at odds with the land. Labour, that most material interaction with land, might build bioregional knowledge about a home place, but might also contribute to a sense of individual ownership, a jealousy of belabored nature, and reductive view of the species as objects of trade.

Most settler memoirs describe the land and its inhabitants as existing in a natural equilibrium before the settler's arrival. In texts published in the latter half of 20th century, settlers yearn for pre-colonial nature, while in earlier texts nature is an imposing exotica, sublime and frightening in its apparent self-sufficient flourishing. This romanticization – and fear – of natural BC extends to settler views of indigenous people. Either way, the memoirs rely on the notion of "discovery." Even settlers reaching land already populated by other settlers

frame their discovery as a *rediscovery* of another settler's land. White argues that romanticizing aboriginal hunting, trail-making, and labour as entirely coexistent with an equilibrius natural setting is an "ac[t] of immense condescension" that allow settlers to view themselves as the first *true* settlers, the first workers on the land (White 175). White settler labour and resource extraction disturbs, improves, or commodifies the "untouched" land, and is construed as the only labour that "makes a difference" (White 175). The labour of thousands of Chinese men in mining, prospecting, railways, agriculture, and canneries in the late 19th and early twentieth century is absent form settler labour narratives. When Chinese workers are represented, they are almost never named, and are usually demeaned. The historical and continuing labour First Nations men and women, the history of Sikh farming, and the work of Metis people in British Columbia are also absent from most settler memoirs. The potentially bioregional insights of ranching, trapping, back-to-the-land, and farming memoirs are thus compromised by this ethnocentrism. Bioregional reinhabitation in British Columbia must acknowledge a history of colonial harm and seeks ways to create a sustainable culture. For bioregionalism to be a culturally, socially, and ecologically just movement, the promise of bioregional reinhabitation must undercut the idea of unsustainable colonial progress and ecological ill-logic. In my project, I critically intervene with the oppressive colonial narratives in settler memoirs, showing the limitations of settler labour

narratives. Contemporary and future bioregional literature must be responsive to, and responsible towards, indigenous land rights.

Gentlemen of the Jack Pines: Richard P. Hobson's *Grass Beyond the Mountains* and the Bioregional Boreal Forest

My ecocritical reading of select settler memoirs looks for the intimate encounters with the forests of the northern interior of BC. These encounters, when seen as sites for bioregional imagination and, eventually, bioregional reinhabitation, provide an ecological imaginary for the contemporary mountain pine beetle forest. The idea of the intimate "perceptual encounter" as a primary value in bioregionalism comes from environmental educator and bioregional writer Mitchell Thomashow. Thomashow writes about a "perceptual flexibility" that allows an understanding of ecological boundaries as changeable and overlapping (101). Perceiving a place through experience, noting subtle shifts in weather and populations, is part of what Thomashow calls "the great educational virtue of local observation" (9). Thomashow's pedagogy is immersive, asking learners to allow for slow processes of observation to overtake shallow taxonomical knowledge of a home place. In this way, Thomashow's model of perceptual ecology involves "learning how to observe, witness and interpret the ecological patterns of the place where you live" (5). He believes that this knowledge contributes to "significant affiliations" between the observer and the bioregion, and from this affiliation to a model of sustainable culture (5). While I do not accept the proposition that affiliation automatically

leads to a desire for bioregional sustainability, I do propose that settler literature narratives of immersive, eco-centric perception offer ground for bioregional imagination. In these movements the settler moves out of the solipsistic, self-aggrandizing tone common to BC settler writing. This move towards affiliation might not be the biophilic dedication to sustainability in home place that bioregionalism prizes, but it does suggest the potential for settler culture to move towards ecocentric, sustainable, inter-species relations.

As I study these narratives for bioregional affiliations, I am aware that colonial settler memoirs of the BC northern interior are both inaccurate natural and cultural histories, and terrifically accurate representations of settler attitudes towards the forests and the indigenous. Now, as settler culture meets with the anomalous mountain pine beetle and the possibilities of creative bioregional imagination, a reckoning with settler narratives shows the history of troubles and affiliations between settler culture and the home place.

The most widely read settler memoir set in BC, Richmond P. Hobson Jr's 1951 *Grass Beyond the Mountains* describes the northern interior of BC as resource rich, wild, and unexplored. The remarkable popularity of this memoir (it has sold more than 100,000 copies) and its position as an embedded popular culture narrative now remade into a theatrical performance, a CBC miniseries and a Reader's Digest publication, attest to the resonance his memoir has for Canadian settlers.

Hobson's *Grass Beyond the Mountains* tells the story of men establishing a massive cattle ranch in the BC central-northern interior. Hobson was the son of a rich American Senator, and himself a failed Wall Street real estate agent. Educated at Stanford University, he left his urban comforts for work at a Wyoming ranch. There he met Panhandle Phillips, an experienced cowboy of mysterious provenance and infamous reputation. Hobson and Phillips left Wyoming for BC, and eventually established what was then the world's largest cattle ranch in the BC Cariboo Interior. Rich Hobson died in 1966.

The conversations and intimacies of male cowboys, ranchers, and hunters propel Hobson's narrative, while the land, the Chilcotin plateau west of Williams Lake, is a muddy secondary protagonist – at times antagonistic and anthropomorphized, and always part of the men's work. When the cowboys "discover" and "map" the land, Hobson describes them as victorious. When they freeze their faces, choke on smoke, or get lost in the muskeg, Hobson lauds the men as determined and rugged. These movements of men on and against the land constitute the primary events of this memoir and, for that matter, most BC interior settler memoirs.

My critical intervention is to read this memoir for glimpses of bioregional awareness. In some way, at the same time that this text narrates the struggle *against* the land, and looks for rich ranchland *beyond* the mountains, it presents the land as a character in its own right. It is this representation of the land as a

site of cultural intention, geological and human memory, and diverse life (however inimical that life might be to Hobson's ranching project) that allows for the development of a sense of the land as a *bioregional place*. But what of a bioregional attachment – that "creative efflorescence" of multiple perceptual encounters that literature about a beloved home place generates in the process of creating a sustainable culture (Glotfelty 41). *Grass Beyond the Mountains* does not build a deep bioregional attachment, nor does it generate a model for sustainable culture. Still, it features moments of bioregional awareness.

Because, while this episodic narrative traverses the grasslands, boreal forests and mountain ranges, it fails to completely exorcise the unpredictable, powerful, biotic presence of the land. Hobson and his mates cannot avoid perceptual encounters with the biosphere. I read these encounters for bioregional awareness, seeking potential shifts towards being in-place (rather than taking, owning, and exploiting place). I ask to what degree Hobson's presence in the boreal forest, while continuing as a colonizing force, is de-centred by the forest itself and he is part of "*everything* that is in the place." In these perceptual encounters there is potential for a bioregional imagination of reciprocal relations between settlers and the land.

Grass Beyond the Mountains begins as a travel narrative in the mode of travelling neither in a home place nor through cherished foreign bioregions. Rather, Hobson travels in search of land that will bring him wealth, and he

loathes land that obscures his plans. In 1934, Rich Hobson and his fellow investor-cowboy Pan Phillips are travelling the Chilcotin in search of "grass country, a promissory gold mine" of unclaimed ranchland (13- 23). Their journey to the grassland is through a "dark jungle land" of pines, muskeg, and spruce: forests that less than thirty years later become rich logging resources were, to Hobson, ugly, thin, crowded, impediments (13-23).

There is a certain grandeur to Hobson's first descriptions of the Chilcotin plateau. Hobson calls the region as "an awesome 250, 000 square-mile chunk of mountain, swamp, river and valley," a "raw, only partially explored territory" through which "a single car road, flanked by isolated villages and cattle-loading pens, splits its vast solitude" (9). Hobson invokes the violence of exploitation in this image of the "car road" that "splits the solitude," and does not wonder at the emptiness of the villages and cattle-loading pens (9). The "solitude," he assumes, belongs to himself, not to the place, or the history, or those who obviously came before him. Still, Hobson's evocation of awe, or diversity of landform, and of the insignificance of technological incursion conveys a degree of respect for his new home. And as for the "thick" pine forests, Hobson sees them marked by "striking contrasts" of dark forest and bright grassland (9). The grasslands, "rolling bunch grass prairies and flat, yellow-green meadows" are hidden behind "the tentacles of great, octopus-shaped, gray muskegs" and the "formidable Itcha, Algak and Fawnie mountain ranges" (10). Hobson does not realize that he is observing the patterns of forest succession, in which forests of

different “seral stages” (the successionary stage of an ecosystem) advance and recede in response to fire, insects, climate change, or windfall. The patterns of the forests and the grasslands, indeed, often look like tentacles, and the difference in density, undergrowth and microclimate in these strips of forest, muskeg, and grassland contribute to rich species diversity (Fenger *et al*. 47-61). What Hobson sees as the manacles of uncivilized wilderness are, in fact, telling ecological patterns about a complex ecosystem of animals, trees, undergrowth, soil and watersheds. Here is an accidental bioregional narrative, one in which the bioregional imagination ultimately fails. In the context of his car travelling along the road that splits the solitude, his lack of curiosity at the empty villages, and his proclaimed goal of finding, fencing, and ranching on natural grasslands regardless of First Nations history, he is more interested in narrating his own exploration than building bioregional affiliation. Hobson means only to celebrate his own heroism, but I find rich bioregional detail in his description of the patterns of forest succession on the Chilcotin plateau. Later, these affiliations lead to unexpected experiences of emotional intensity with those same tentacle forests.

Hobson then officially invites his reader – “you” – to a story about how he and his friends, “fabulous characters,” penetrate the “solitude” surrounding their journey (10). The reader, complicit in his venture, is not invited on a journey of ecological exploration, or introspective investigation. The meaning of the text is, clearly, to establish Hobson as a successful explorer and colonialist,

and to bring the reader to Hobson's side as audience, friend, and complicit colonizer. This invitation, in my study, shows the importance of interrupting the reading of settler memoirs as heroic labour and discovery narratives. To do otherwise is to deny land theft, colonial violence and ecological exploitation.

Overall, Hobson's confidence in himself as an explorer of "raw," unclaimed territory is both historically inaccurate and grating, as illustrated by his anecdote about coming across the site of the Chilcotin War. On their first trip to the Chilcotin plateau, Hobson and Phillips drive an old sausage-maker's truck, the sides emblazoned with names of processed meat products. Eventually, "the obstinate, mud-encased Bloate" breaks down after surmounting "steep rocky hills" and muddy brush (25). The men casually leave their broken truck as debris, as if the landscape is so "raw" and wild that it can absorb this mechanical purveyor of animal and human animal bodies. I find the abandoned sausage maker's truck, then, a curious symbol of the reductionist, capitalist thinking that settler culture brings to the BC interior.

It is here the men notice they have stopped close to "some old, barely visible holes, resembling caved-in trenches" (25). Hobson writes that "later" (when this later comes, and from which source, is not revealed) he learns that these "holes were trenches dug not so very many years before by the road crew, battling for their lives against a band of Chilcotin Indians" (25). Hobson writes

that the “eighteen road men” fought against the “Indians for days,” but in the end were killed, their bodies left for “wild animals” (25).

Travelling on, Hobson and Phillips reach the Anahim Lake region west of Williams Lake, and describe it as haunted, “its sullen forests recently echoing the shots of explorers who had fought and died there” (35). Hobson imagines the grim ghosts of both pine forests and the First Nations people, “jealously guarding its immense boundaries from men creeping north and west from the rim of civilization” (35).

If bioregional literature reflects the complex ecological, social, and political history and present of a bioregion, Hobson’s melancholic discovery anecdotes are far from bioregional. They reveal more about Hobson’s biases and self-identification with colonial explorers than about the land and the indigenous people. But these stories are still important. Hobson’s narrative still circulates, and the Tsilhqot’in Nation of the Anahim Lake region has still not ceded their land to settler governments.

In Hobson’s confusing reference to road builders (a history known, in various versions, to most local readers of his memoir), Hobson refers to the 1863 Chilcotin War. Current historical records note that the first attacks were on “twelve sleeping white men,” whom the Chilcotin men killed with “gun, and knife and axe” (qtd. Turkel 177). Further towards Anahim Lake, in the Nemiah Valley, close to where Phillips and Hobson’s truck broke down, a Chilcotin

woman warned another road building crew of the planned attack. The road-builders dug embankments, hoping to fight off their attackers. Four men, and possibly the Chilcotin woman, were killed at this site. A ferryman was also later shot, as were two men in another party. Accounts of this war have changed in detail and tone, and in recent publications the event is usually called a war rather than an outbreak of violence. The Tsilhqot'in Nation today asserts that this attack was an act of war in resistance to occupation of their land and disregard of their people. First Nations historians maintain that the attack on road builders hired by the provincial government to begin the construction of a road from the BC Lower Mainland (Vancouver and New West Minster) to the Cariboo-Chilcotin was a planned event undertaken as an organized anti-colonial First Nations campaign (BC Provincial Archives).

This campaign was relatively successful. All adults in the Nemiah Valley are native speakers of Tsilhqot'in, and "the language retention rates" among the rest of the Tsilhqot'in are higher than in most First Nations of BC (Lutz 161). The Chilcotin Plateau remains one of the "least settled" areas in British Columbia and First Nations hunting and fishing practices have been preserved culturally, through the preservation of cultural knowledge, and politically, through the continued vehement resistance to settler culture encroachment on land and resources. In *Makuk: A New History of Aboriginal-White Relations*, historian John Sutton Lutz argues that the Tsilhqot'in's resistance to white culture has "made a major difference in cultural wealth," since other, less resistant indigenous groups

lost a great deal of cultural knowledge to settler economic and cultural encroachment (161). That the traditional territory of the Tsilhqot'in remains mostly unsettled by non-indigenous people is not "an accident of history of geography" but the result of now close to 200 years of Tsilhqot'in resistance (Lutz 120 – 121).

The history of the Tsilhqot'in people as successfully resistant to settler cultural contradicts Hobson's view of the Chilcotin as the last uninhabited region of North America. In truth, the region has been visited by many groups of white settlers, and they have been systematically driven out, killed, starved, and rebuffed by indigenous resistance. Faced with material remnants of a colonial war, Hobson is challenged to admit to the previous presence of other settlers, and he cannot ignore the earthmounds attesting to earlier, failed, capitalist ventures. But rather than learning the bioregional history of his new home, Hobson assigns the history a scanty retelling, in which the land is ahistorical, the events are mysterious and apolitical, and the land, still, belongs to no one. That is, in his narrative, people previous to Hobson – First Nations, other ranchers, loggers – cannot belong to the land, and the land cannot belong to them. Hobson's narrative, here, fails to build a bioregional attachment to land and people. Instead, his memoir holds the project of resource exploitation above that of cultural and ecological sustainability. So, while at times Hobson's memoir suggests potential for affiliation with the forests of the Chilcotin landscape, and notices the odd majesty of muskeg, this racist falsification of contemporaneous

and historical geopolitics ultimately excludes this text from a bioregional ethic.

Further in their journey, travelling through forests, Hobson and Phillips meet with a small group of concerned Ulkatcho[3] men. Hobson describes the men as "creepy," and is sure that, although the men threaten violence if the ranchers try to take their land, the men will be swept aside with "bluffin'" and "scarin'" (167). Indeed, it takes somewhat more – Hobson is elected to engage in a decisive fistfight with one of the men. When Hobson, a former amateur boxer (a fact he keeps from his opponent) wins the fistfight, the Ulkatcho men are given tins of coffee and sent on their way. The event is narrated with a jocular masculinity, as if the minor turf skirmish were a humorous and successful joke. By infantilizing and demonizing ("creepy") First Nations men, Hobson denies them any legitimate cultural or economic claim to the land.

Rather than sharing bioregional knowledge, or building on desires to live sustainably on the land – the opportunities Barry Lopez argues colonial culture continues to miss, to tragic ends – with the indigenous Ulkatcho men, Hobson reduces the men, their land claim, and the Anahim Lake Country as annoying and antagonistic to his own project. Muskeg, for example, is a "stinking" obstacle to the passage of his horses (Hobson 140-1). In fact, while muskeg presents an obstacle to moose, men, and horses, muskeg is a relatively rare and unique BC ecosystem in which peat moss or other vegetation preserves a layer of

[3] Ulkatcho are a member of the Carrier-Chilcotin Nati,on.

permafrost less than two metres from the surface (Ministry of Environment). A kind of "cryosolic soil," Hobson's muskeg is a rare formation requiring long, cold winters, particular grasses and plants, and a continuous supply of water. Cryosolic soils in the Chilcotin are somewhat anomalous: parts of the Chilcotin plateau are hot and dry in the summers, others are covered with dense pine, and the presence of cryosolic soils indicates a soil temperature of below zero Celsius "continuously for a number of years" (Ministry of Environment). Hobson has likely never seen cryosolic soil in a state of permafrost before his encounter with this muskeg forest, yet he disallows any bioregional curiosity about the unusual ecosystem. Instead, he personifies the land as misanthropic, as if the mountains, soil, forests and weather embody the resistance to colonialism that he maintains the First Nations people do not. *Grass Beyond the Mountains* divides a terrifically diverse ecology of wetlands, spruce forests, lodgepole pine stands and natural meadows into two categories: that which can be ranched and that which cannot be ranched. Hobson's reductionism mars his encounters with Carrier and Chilcotin people, his sightings of moose and caribou herds, and his travels through fantastically rich plant and soil terrain.

A sense of place "comes from an eminently practical premise" (Thomashow 76). Thomashow writes that those who explore their "sense of place" by "thinking about home and community, ecology and history, landscape and ecosystem" are learning about their home environment and inevitably develop "an ethic of caring" for that home bioregion (76). This "emphasis on

place and community" is foundational to bioregionalism, and Thomashow values the "tangibility" of place-based environmentalism (77). Thomashow includes knowledge of human history and culture in his explanation of a bioregional sense of place, and it is in this regard that settler memoirs, and Hobson's in particular, often lack depth.

While he does not emphasize biotic community, disregards indigenous people, and does not aim to develop an "ethic of caring," Hobson is affected by the forests he travels through. Through his record of these encounters, Hobson observes enough about his surroundings that a sense of the bioregional possibilities emerges. Hobson, Phillips and another rancher, Andy, are traveling in search of a great undiscovered rangeland, and in their journey they cross the mountain ranges and plateaus of the Cariboo Chilcotin. Early in the memoir, the men are climbing on horseback through high volcanic buttes and scattered spruce trees in the Itcha Mountain Range in the Chilcotin. This range is located in a Montane Spruce biogeoclimatic zone, which occurs at "middle elevations . . . in plateau areas" where winters are cold, summers are short and warm, and the forests provide winter range for caribou (Mackinnon *et al.* 15). Setting camp late at night "at the base of one of the red cone-shaped buttes," it is dawn before the men see beyond the plateau (124). As they drink their camp coffee, dawn "lift[s] like a magic curtain," and "distant shapes and shadows" appear (124).

The men look out “at the panorama of a silent, lonely jack pine land, so vast, so immense in scope that its immense green boundary faded in hazy space” (124). Hobson is overcome with the “immense” pine territory, unable to discern more than a “hazy” end to the “monotonous green” forest (124). It has already absorbed their rusting sausage truck, and he is determined that this land will welcome his massive capitalist ranching scheme. Hobson recalls having seen “great sweeps of arid desert wastes and burning badlands” and having crossed “enormous stretches of prairie,” yet he feels that “none of these sights affect[t] [him] like this first view of the dull green jack pine world” (124).

Hobson, in his awe – and a massive stand of pine is a remarkable sight – mistakes lodgepole pine (*Pinus contorta*) for jack pine (jack pine, or *Pinus banksiana*, is found only east of the Rocky Mountains). Hobson is travelling through the Itcha Mountain Range in the Chilcotin, an area of mostly Montane-Spruce forests (Mackinnon *et al.* 15). He is looking over successional lodgepole pines in a dense, low-diversity forest that has most likely grown after a fire or a mountain pine beetle population expansion: this is a forest in a young seral stage of forest succession (Mackinnon *et al*. 15). It will not *always* look this dense and uniform: Hobson’s “dull green jack pine world” is a youthful lodgepole pine world, and is more ephemeral than he might imagine. Today, this might be grassland, or a diverse forest of understory, fir and spruce, or a low-density pine and spruce forest with old growth pines, exposed forest floor, and rich wildlife (Mackinnon *et al*. 15).

But Hobson is overcome by the sight of the "monotonous green" pine forest, and feels as if he is falling from his plateau. He feels as if "a strange hollow loneliness . . . reach[es] up out of the vastness of the jack pines . . . [catching] me for the first time in its grip" (124). Thus caught, Hobson's determination to subdue this environment is set adrift, disturbed by the seeming anonymity and undifferentiated repetition of the pine stand. He feels "eerie" when confronted with the "empty, lifeless land of monotonous sameness," at once "uninspiring" and deeply disturbing, even "sinister" (124). Unable to imagine the forest as a bioregional landscape with a dynamic past and unpredictable future, Hobson proclaims that he is looking at a "land that breathes no spirit of a past life, and gives little hope of a future one" (12). His gloomy account of this meeting is of an intensity that occurs seldom in his memoir. His accounts of breaking horses, building cabins, and herding cattle move briskly, cheerfully, at a jocular pace that jars against the self-reflexive gloom of his view of the lodgepole pine forest.

Hobson's narrative, for the most part, reduces ecological diversity in the land. His interests are not bioregional and his narrative builds not permanent attachment to the land. The grasslands and forests, rendered uniform, are measured, fenced, burned if necessary, and irrigated; for Hobson the land is never an agent, always a setting**.** Hobson is unwilling and thus unable to submit to the bioregion, too terrified at surrendering his human dominance to the threat of an endless landscape of green pines. Ironically, it is this sublime terror,

coming from a perceptual encounter with an ecosystem, that most resembles the humble beginnings of a bioregional imagination. His melancholic meditation on the land is an emotional mapping, and as such, limns a proto-bioregion. If a bioregional imagination requires attachment to place, dedication to sustainability, and a respect for cultural and ecological diversity, his narrative fails to map a bioregion. Hobson's constellation of remembered encounters with the landscape is more than a strictly solipsistic account of his adventures, but it is not a deep, rooted, and respectful bioregional vision or memoir of sustainable life in a home place.

Still feeling "melancholy," the men climb higher in the Itcha Mountains, out of sight of the pine forest into the spruce and fir forests, and set up camp (Hobson 126). To help the men forget – deny – their vulnerability in their new home, Phillips brings out an unopened bottle of whisky, which he dedicates to the three men, the newly named "gentlemen of the jack pines" (Hobson 126). He toasts to their "keen disappointment" at discovering, not a vast flat grassland range for their cattle company, but endless, and *grassless*, pine forest (Hobson 126). And now, the men's melancholy, their collective feeling of vulnerability, is explained not as a moment of insightful species humility and bioregional imagination, but as a rational reaction to the discovery that the land ahead of them is unsuitable for their business venture. All night the men drink, ridiculing their own expectations, mocking their melancholy, forcing gaiety and passing

around ghost stories about the Ulkatcho First Nations who lived in the spruce and pine forests.

Hobson's narrative never quite returns to this waterfall of perceptual awareness. Once, while stuck in a bog, he is afraid and excited, fearing he will sink and die. But he struggles to be rational, not to "lose [his] head," and he quickly succeeds. The bog fades in importance and the bioregion is ignored (139-40). The incident clips along to a heroic finish, horses and men exhausted but safe. Hobson and Phillips travel further to find and claim large grassland, starting the Frontier Cattle Company. The men become wealthy, busy ranchers and remain lifelong friends. But the heart of this memoir is the men's momentary bioregional humility from atop a mountain ridge. The movement from perceiving the intense power of the elements of the ecosystem, such as the muskeg soil, or the vacuum strength in the bog, to considering these ecosystems sites of value, does not arrive for Hobson and Philips. That, is the shift from a strongly felt realization about the natural world to an ethical shift towards caring for that natural world does not occur, and therefore bioregional attachment does not develop. Bioregional literature expresses a sense of place in which non-human species are valued agents, encourages an open comportment of perceptual awareness, respects contemporary and historical human interactions with the natural world, and strives for ecological and cultural sustainability. *Grass Beyond the Mountains* fails as a bioregional text.

In the other memoirs I address in this chapter, narratives reflect attentive relations to place, and perceptual awareness contributes to a desire to live sustainably.

"To Become Beavers of Sorts": Eric Collier's Nascent Bioregional Eco-Ethic in *Three Against the Wilderness*

Eric Collier's *Three Against the Wilderness* is important because, while it adheres to the settler genre, the main events of the narrative are animal-human interactions and attempts to restore an animal ecology. First published in 1959, two years before Rachel Carson's *Silent Spring* put ecological harm in the public eye, the memoir emerges as a nascent ecological text and an early model of bioregional reinhabitation.

Set in 1931, in the Chilcotin region of the British Columbia Interior, the memoir begins with Collier's description of a watershed ecosystem that is rapidly drying, and from which most mammals, birds, and fish have disappeared. Collier writes that Meldrum Creek, a narrow, weedy waterway, leads through "stagnant and smelly" meadows and past the "crumbling façade" of abandoned beaver dams (Collier 5). Around this "sick" watershed are "powder-dry grasses," and the forests and fields are unusually quiet of the call of waterbirds (5). The birds and animals that rely on the watershed are disappearing from the surrounding forests, and Collier elaborates on the ghostly quality of this watershed he later details has been exploited by overtrapping. Collier's memoir recounts how the Collier family moved to and restored the Meldrum Creek watershed and its

dependent ecology, restoring and then carefully trapping a beaver population in the watershed. The Colliers trap beavers and other mammals for fur, and hunt and fish for food, making a living from this watershed and the surrounding forests.

BC historian Elizabeth Furniss, unforgiving of settler histories, is critical of Eric Collier's memoir of settling and trapping on the Cariboo Chilcotin in the 1930s and 40s. She reads Colliers' *Three Against the Wilderness* as anthropocentric, Eurocentric and paternalistic. She condemns Collier for pre-empting land without wondering about the Carrier or Tsilhqot'in peoples' territorial rights. Furniss notes that Collier is kind but paternalistic towards the Carrier men he meets "poaching" on "his" trapline (67). Eric Collier responds to tensions between his family and local indigenous people with strategic "paternal domination" (67). In this, Furniss shows the commonalities between Collier's memoir and Hobson's. She notes that both memoirs emphasize a belief that the success of the (colonial) settler endeavour is only "due to the courage, determination, and the drive of the pioneers" (70). The memoirs neglect to acknowledge the "political and economic contexts" of privilege that supported their endeavours and "suppressed Aboriginal resistance to settlers' appropriation of Aboriginal lands" (70). In Furniss' view, far from being connected to local ecologies, settler culture was first positioned as antagonistic towards a menacing frontier of hostile and vulgar weather, land and animals.

Furniss later argues that this violent, racist culture survives in political and criminal acts in Northern BC today.

In part, I agree with Furniss. The settler genre is a colonial enterprise, both recording and defending settler land encroachment and the systematic abuse of First Nations people. As well as telling the story of "paternal domination" and assiduous assimilation and attempted genocide of indigenous human populations, a process Daniel Coleman analyzes extensively in *White Civility: The Literary Project of English Canada*, these memoirs tell the story of the domination of the land and the indigenous flora and fauna. The culture of resource extraction is one of mastery over the forces of nature. This obsession with mastery eventually results in multiple ecoharms and a disastrous schematization of the interests of colonial capitalism in opposition to the forces of nature. However, Furniss' evaluation of settler memoirs is limited to her critique of their colonial complicity. I would like to further her reading of settler literature, particularly her rather perfunctory analysis of *Three Against the Wilderness*. This memoir is unique in that it focuses around interspecies relations, it acknowledges previous colonial ecoharm to a specific ecosystem, and the narrator expresses reverence for what he understands of First Nations knowledge. So while the text is inherently compromised by its colonial origins, I can, by examining the ways in which it deviates from the settler literature genre, locate sites of bioregional imagination and reinhabitation of a damaged ecosystem.

Three Against the Wilderness narrates creative ecological practice grounded in bio-regional particulars. The Colliers' practice depends upon intimate lived knowledge of a dynamic ecosystem, and *Three Against the Wilderness* follows the family as they develop and implement site-specific knowledge for the benefit of multiple species. While still written in the genre of colonial settler memoirs – mostly episodic and monologic, and often racist – *Three Against the Wilderness* is unique in that Eric Collier attends respectfully to intersecting social and animal interests. Born in England in 1903 to a wealthy industrialist family, Collier rejected urban living in favor of trapping, hunting and homesteading in Canada. Neither the idea of "ecology" as a general study of the interactions between living organisms and their habitat or as a term describing a region within which organisms interact was known to Collier in the 1930s. Nor was "the environment," the notion of a surrounding natural space distinguished from humans, a subject of public discourse, and bioregionalism was decades away. Perhaps, then, it is even more remarkable that, from the earliest chapters of *Three Against the Wilderness*, Collier exhibits an understanding that humans must recognize the influence of their own culture and social institutions (however arcane or hierarchical) as well as seemingly chaotic natural forces. The Colliers' eco-restorative success hinges on their ability to think laterally across human/ animal, nature/culture divides.

In *Three Against the Wilderness* much of the physical labour of moving logs and breeding beavers happens as a result of consultation with Collier's

indigenous wife and mother-in-law and the Colliers' imaginative bioregional thinking. This open approach, in which Collier observes and learns from people in his adopted community, and later, from the lives of wild animals, is the greatest difference between Collier and Hobson's memoirs. And while it is not clear why Collier rejects the strictly capitalist ethos that Hobson so unequivocally embraces, Collier's relationship with his wife and mother-in-law, as well as his relative humility to the non-humans in his home, allow him to adopt a more flexible, more sustainable, bioregional attachment to his home place than Hobson. Environmental philosopher Val Plumwood argues that human-nature relationships that are governed by Hobson's kind of capitalist rationality are inherently "irresponsible, unaccountable, and invisible," part of a "disembedded" human system (15). Hobson's reductive framework for the grasslands and forests of the Cariboo-Chilcotin is rational as a capitalist project, but it is irresponsible and disastrous as a bioregional project. Ecological damage, like overgrazing of grasslands that eventually occurred in the Cariboo-Chilcotin, is an inevitable result. Instead, Plumwood advocates a creative epistemology that, like bioregionalism, includes attention to non-humans, emotion, compassion, and reason.

The bioregional imagination in *Three Against the Wilderness* charts the ground for a restoration narrative that speaks to ecologists, environmentalists and eco-critical theorists beyond the BC interior. I want to think about how Collier's memoir creates a bioregional *ecosophy*. Environmental philosopher

Lorraine Code describes an *ecosophy* as a personalized environmental philosophy, one that maps "knowledge-enhancing and knowledge impeding possibilities" and allows restorative ecological acts that might otherwise seem at best non-productive and at worst downright odd (Code 60). The Colliers' relationship with beavers is one such creative ecosophical act. Felix Guattari's environmental philosophy treatise *the three ecologies* proposes that global ecological restoration requires an ecosophical shift in mental, social, and environmental registers. Like bioregionalism. Guattari's model of ecosophical thinking requires creative thinking, a willed vulnerability to interspecies influence, and an acknowledgement of human and non-human history. *Three Against the Wilderness* is an exemplary bio-regional memoir of the creation of a practical ecosophy.

Admittedly, *Three Against the Wilderness,* set in a lodgepole pine forest with no phone, electricity or newspapers, generates an ecosophy specific to the Meldrum Creek watershed. But bio-regional specificity can generate restorative practices beyond the scope of the innovator. The geo-political and environmental challenges Collier faces in 1931 resonate with current conditions in the BC Interior, an area described as "the front line of climate change" (Cariboo-Chilcotin Beetle Action Coalition 2009). Due to an unprecedented mountain pine beetle epidemic, biologists predict that by late 2013, 80% of all pine forests in BC will be dead (CCBAC 2009). Anthropogenic factors were the sole contributors to the near-death of the Meldrum Watershed. BC historian

John Sutton Lutz's describes the increase in prices for beaver pelts in the early twentieth century, peaking in 1925, when the beaver populations were assessed as dangerously low (Lutz 154-56). The prices of furs rose dramatically, and a temporary provincial ban on beaver trapping in the provincial interior in 1925 did not lower prices (Lutz 154-56). As well, increases in logging and more logging roads in the BC interior meant easier access for wolves to watersheds and forested areas, so that beaver and other mammal habitats once protected by dense forest and undergrowth were made more vulnerable to predator attacks. Further, Collier describes how water was diverted for irrigating hayfields upstream of the watershed. Irrigation was minimally regulated and certainly the watershed did not have the same flow it did before hayfield irrigation. By the time Collier arrived in 1931, the Meldrum Creek Watershed had been altered by resource extraction economy. It is the same pattern of resource extraction, and another constellation of anthropogenic effects, that have resulted in the anomalous mountain pine beetle in the 2000s.

Like the dying Meldrum Creek Watershed in 1931, the current mountain pine beetle epidemic is a combination of (some) natural and (more) anthropogenic factors. Recent engineered responses to the pine beetle have proven ecologically disastrous, the worst of which was a secretive, government funded project of injecting thousands of pine trees with MSMA, an arsenic-based pesticide. Obviously, even 40 years after Rachel Carson's *Silent Spring*, a commitment to a locally sensitive, creative, restorative ecosophy is needed.

In my reading of *Three Against the Wilderness* I focus on the beginning of the Colliers' bioregional project to restore the watershed to the condition of animal diversity that Eric Colliers' Carrier mother-in-law, Lala, recommends. I also focus on the Colliers' early encounters with local water authorities, ranchers, and First Nations people. I analyze these ecological and social encounters as ecological practices that attend to Guattari's theory of an inclusive ecosophy that spans knowledge and practice regimes. The Collier's success depends upon their inclusive practice and their willingness to include diverse human and non-human needs in their bioregional restoration. In "Coming in to the Watershed: Biological and Cultural Diversity in the California habitat," Gary Snyder describes how a "watershed gives us a home, and a place to go upstream, downstream, or across in" (82). The "familial branching" of plants, animals, and people in a watershed cross "subtly shifting" bioregional boundaries" (82). Snyder writes that "only a grassroots engagement with long-term land issues" can succeed at watershed preservation or restoration (83). The Colliers' bioregional citizenship, rooted in the cultural locus of the Meldrum Creek watershed, builds relationships between species, contributing to an emerging community ecosophy.

Small and flexible, communities of bioregional citizens often succeed at conservation where large organizations flounder. In *the three ecologies,* describing why large organizations might fail to restore ecological damage, Felix Guattari writes that even when "political groupings" and "executive powers"

recognize environmental change, as they sometimes must else appear foolish (the undeniability of climate change, melting icecaps, massive erosion, disappearing fish stocks), their first and often only response is to “tackle industrial pollution” rather than seeking deeper systemic fault (28). But restoring ecological damage, Guattari argues, is more a matter of human species subjectivity than industrial tweaking. While eliminating pollutants is laudable, only a significant change in the relations between humans and their environment can prevent long term, large scale environmental damage. Guattari points to the forces of the global market and the way these forces place a reifying market value on everything: “material assets, cultural assets, wildlife areas, etc.” (29). Living and non-living creatures are evaluated as potential assets, and their preservation depends on their relative value to the machine that Guattari calls Integrated World Capitalism (IWC). Globalization and the ever increasing differentiation of markets and products (bio-products, green products, fair trade products, sustainable petroleum extraction) only increases the eco-ethical noise that swarms the earth. In conservation terms, this means that ecosystems are divided into discrete units, and each unit is assessed for value to the proliferating markets. IWC conservation follows the needs of the market. A bioregional ecosophy follows a relational map of a dynamic, thriving, ecosystem. Eric Collier’s bioregional ecosophy, while attentive to market demands – Collier makes a living selling animal pelts – firstly follows the seasonal needs of bioregional populations. I think that the Colliers, acting decades before

the convolutions of post-modern globalized economics, model environmental practice that resembles Guattari's "three ecological registers (the environment, social relations and human subjectivity)" and is relevant for bioregionalists and ecologists facing diverse global ecoharms (Guattari 28).

Collier comes to Meldrum Creek with an aim to return the watershed to biodiversity. He first hears about the decline of life at Meldrum Creek in conversations with with his Carrier mother-in-law, Lala. Collier describes as an "ancient unlettered" Chilcotin woman (16). Crediting Lala as a source of unquestionably authentic and reliable knowledge, Collier describes her further as "an ancient oak" whose "wise old mind" is "a veritable storehouse of knowledge concerning the land" as it was before colonialism (13-14). Collier creates a conservation epistemology around Lala and her "biological knowledge" from "the campus of the wilderness" (13). Collier writes at a time of intense racism in the Cariboo-Chilcotin, when violent confrontations between First Nations and settlers were common, and when children were being forcibly taken from their families to state funded residential schools. The commonly held "idea of the frontier in the Cariboo Chilcotin" was based on a notion of the wilderness "offering an abundance of [available] resources" and on the "cultural, material" and "political" superiority of settlers to First Nations (Furniss 17). Aboriginal knowledge and independence was discouraged, seen as "a hindrance to the advancement of the colonial economy (Furniss 35). In this racist atmosphere, Collier's romanticized validation of Lala, drawing on the trope of what we now

call the “ecological Indian,” while patronizing and reductionist, is also an act of marked difference. Throughout the memoir the Collier family respectfully draws on Lala’s skills and knowledge. By building on Lala’s bioregional knowledge, Collier is restoring a sense neighbourhood relations” and a connective “kinship” from an already fractured and colonized community. This is the kind of act that Guattari finds in the “social register” of a new ecosophy (Guattari 34-36). Lillian, Lala’s granddaughter, meets and falls in love with Collier Equally smitten, Collier marries Lillian and vows to Lala that he and Lillian will repair the damaged watershed.

Eric Collier learns from Lala that while ranching, and trapping have slowly damaged the flow of freshwater through the watershed, the demise of the beavers due to overtrapping was the loss that the watershed could not recover from. Without the beaver dams, the creek’s flow was not slowed enough to fill ponds and lakes. Water birds lost a habitat, predators lost water birds as prey. Fish disappeared from the creek, and birds and mammals that ate the fish starved[4]. Ranchers who had once drawn water from the ponds and lakes to

[4] “Although Beavers are often considered destructive by anyone who happens to own property that these animals decide to log or flood, they perform a multitude of ecological services in a land of running water. In British Columbia’s narrow, steep valleys, numerous small lakes and their inhabitants owe their existence to the stick and mud dams built by Beavers. In dry country, the pond behind the dam is an oasis, holding back the spring freshet and doling it out gradually through the summer. The Beavers’ logging and flooding create sunny borders of sedge marsh and willow swamp, where Willow or Alder Lfycatchers sally out after caddisflies; Common Yellowthroats, Northern Waterthrushes and Lincoln’s Sparrows sing from the bushes; and Moose munch in the shallows. The flooded, dying trees that remain standing along the pond’s edge become homes for woodpeckers, goldeneyes and Tree Swallows.” (Cannings, British Columbia, 290)

irrigate hay fields looked further upstream to the large lakes that fed the creek. Drawing water from these lakes lowered the creek's waters even more, until the creek was but a narrow trickle, and the once busy marshes, ponds and lakes were muddy pits. Trees and grasses around the creek became tinder-dry, and the moose and deer lost watering holes and the cool shade and nourishment of willows and deciduous trees. Lala explains this chain of events as a direct result of colonial commerce:

> 'Until white man come,' she then went on to explain, 'Indian just kill beaver now an' then s'pose he want meat, or skin for blanket. And then, always the creek is full of beaver. But when white man come and give him tobacco, sugar, bad drink every tam'he fetch beaver skin from creek Indian go crazy and kill beaver all tam'.' Again her fingers clawed my arm. Harshly she asked, 'What's matter white man no tell Indian – some beaver you must leave so little one stop next year? What's matter white man no tell Indian – s'pose you take all beaver, bimeby all water gone too. And if water go, no trout, no fur, no grass, not'ing stop? (Collier 16)

Lala confronts Eric with bioregional politics: she asks him why the colonial settlers built a trade system so voracious that it destroyed the very resource it depended on. Lala implies that the violence is not accidental, that colonial powers withheld information that could have saved the watershed, just as they withheld warnings of alcoholism, disease and social decay from the Native

communities they wanted to manipulate. Grounded in bioregional immediacy, Lala's ecosophy is local, urgent, and, as Collier discovers, innovative:

> After a few contemplative moments she suggested, 'Why you no go that creek and give it back the beavers? You young man, you like hunt and trap. S'pose once again the creek full of beavers, maybe trout come back. And ducks and geese come back too, and big marches be full of muskrats again all same when me little girl. And where muskrats stop, mink and otter stop too. Aiya! Why you no go that creek with Lily, and live there all tam', and give it back the beavers? (16)

Bypassing sublime rhetoric, Lala approaches the Meldrum Creek crisis at the level of bioregional particulars. Collier, a "young man," can "hunt and trap," and Lala reads his motivation correctly: he would wish the creek filled with beavers at least partly for his own benefit. Without suggesting *how* it could be done, Lala decides that Eric Collier's task must be to move to the land with Lily, move permanently to the Meldrum Creek bioregion ("for all 'tam") , and repopulate the beavers.

Eric and Lillian marry, have a son, and move to the Meldrum Creek watershed. For ten dollars and an agreement "to 'conserve and perpetuate all fur-bearing animals thereon'" the Colliers gain legal trapping and habitation rights to over one hundred fifty thousand acres of land around the watershed (Collier17). From the outset, Collier follows the rules of the Fish and Wildlife

authorities, even as he is aware that, up to then, trapping "had been carried on upon a catch-as-can basis, with few registered traplines" (16). The "conservation" the Colliers agree to is "not much more than a formality" since Eric and Lillian suspect that "the word 'conservation' [is] not to be found in the lexicon of the fur trade" (16). Their move to the watershed begins a new kind of bioregional conservation.

The Colliers' move to the watershed admits that human enterprise depends entirely upon the earth. Their ecological practice reflects what environmental philosopher Val Plumwood writes is the essential ability "to see humans as ecological and embodied beings" (19). Embedded in their bioregional enterprise, the Colliers declare "[h]ere we were and here we would stay" (29). Environmental philosopher Patrick Hayden, recommending Gilles Deleuze and Felix Guattari's philosophies for environmentalism (I refer only to Guattari's ecological writing), writes that "for ecopolitical activism to compose itself effectively, it must steer clear of universalized abstractions and carefully study the specific needs and alternative possibilities within localized situations" (123). *Three Against the Wilderness* does "steer clear" of religious, philanthropic or romantic meditations on "nature": indeed, the word "nature" is rarely used. *Three Against the Wilderness* is unique among settler memoirs for this lack of pious abstraction. Instead, Collier dedicates narrative detail to specific animal, bird, fish, insect and human populations in the Meldrum Creek watershed.

An attentive bioregional ecosophy works because, while grounded in location, it remains open enough to include "various members of the diverse yet interconnected milieux" (Hayden 112). Its "provisional, revisable" nature allows for species diversity: beavers as well as ranchers influence the Colliers' restorative efforts (Hayden 122). Humans and the "social institutions" they create to manipulate the natural world can be assessed, equally, alongside the non-human:

> [. . .] no evaluation takes place in isolation from the ongoing processes of social composition in nature. Since these include human social institutions, it is vitally important to realize that ethical evaluation requires an examination of the practices of specific human social institutions as they relate to nonhuman social activity. (Hayden 123)

The Colliers soon have an opportunity to examine official human practice in relation to the needs of the watershed. Eric writes a "lengthy letter" to the "Water Rights, Department of Lands and Forests," detailing the state of Meldrum Creek and proposing his "solution to the water problem" (Collier 57). He asks the Water Rights Branch for their "official blessing" and "some protection" for the Colliers' plan of "repairing the beaver dams scattered over the upper reaches of the watershed, and reflooding the marshes" (57). Eric wants assurance that the refilled beaver dams will not be "tapped of their water by the ranchers below" (57).

Eric and Lillian's intention of proceeding alongside one of their bioregions' social institutions and its formidable power over the fate of the watershed leads initially to disappointment. The Water Rights Branch responds with: "'We are of the opinion that your plan would be of no benefit whatsoever to the annual flow of Meldrum Creek'," in a tone Collier describes as "polite, concise, chilly, the drab phraseology of officialdom wherever it might be encountered" (58). The register is what environmental philosopher Val Plumwood describes as the hierarchical "sado-dispassionate rationalist model of personal objectivity" (41). This tone flourishes in an ecologically disastrous rationalist epistemology in which "emotional neutrality" is considered an "admirable trait" rather than, as Plumwood thinks of it, a "moral failing" (41). The rationalist epistemology derides subjective investment in an ecosystem, therefore remaining ignorant of rich bioregional knowledge, so that "the drab phraseology of officaldom" misses much wisdom. Code observes that bioregional narratives generate knowledge strengthened by "internal detail," and "situational sensitivity" (60-61). The Water Rights Branch letter writer has likely never seen the Meldrum Creek Watershed, perhaps has never seen a beaver, and certainly shows no appreciation of bioregional complexity.

The Colliers, undiscouraged, next seek cooperation from a local authority figure who at least cannot disdain their plan from a "dispassionate" distance. Lillian suggests that Eric write a letter to Charles Moon, "the largest landowner in the valley" and a rancher with interest in a revivified watershed (58). Mr. Moon

has “first right on the creek for water” as well as social influence with other ranchers, and his conservation of any dammed ponds would be *de facto* protection for the Colliers’ project (58). Moon’s written response to the Colliers exhibits appropriate sensitivity to the ecosystem’s dire condition: “Anything you do up there can’t make matters much worse down here. I always have believed that the extermination of Meldrum Creek’s beavers is largely responsible for the fix we are all in now. As far as I am concerned, go ahead with what you have in mind and let’s see how it works”(58). These “vastly different results” to the Colliers’ letter campaign show the practicality of a bioregional ecosophy (57). When the Colliers focus on making connections in the social register, they find co-operation for their work in the ecological register. Guattari would applaud the Colliers for strengthening “neighbourhood relations” as well as natural ecologies (Collier 57-59).

The third register in Guattari’s *three ecologies*, that of the mental (personal) ecological register, comes out of “focal points of creative subjectification” (Guattari 57). Perhaps the most puzzling and provocative of Guattari’s three registers, the mental register asks people to “pla[y] the game of the ecology of the imaginary” (Guattari 57). Guattari’s ecological mental register requires an imaginative, flexible flow of both quotidian daily thinking and a limitless dream-state. From a re-imagined mental register, creative ecosophies emerge and any number of dreamed (and practical) bioregional restorative projects might take shape. Environmental historian and geographer William

Cronon writes that "[t]o protect the nature that is all around us, we must think long and hard about the nature we carry around inside our heads" (20-21). Guattari would further ask that the "nature" in "our heads" must *be* the thinking we do: we must dream well, work imaginatively, and allow easily. We should allow creative relations and inter-species influences to inform our bioregional practice.

As his family approaches the first physical labour of their restoration project, the game of "the ecology of the imaginary," Collier describes the work as a joyful exercise: "And I'd have Lillian and Veasy, and a hundred and fifty thousand acres of wilderness, and as long as the three of us were together to share that wilderness, loneliness would never upset us. I was quite sure of that" (28). His optimism may be burnished by a memoirist's nostalgia, but I read this determination to happiness as a result of the Colliers' creative bioregional ecosophy. With their revisable ethic, the Colliers are free from restrictive notions of what a wilderness settler must do (usually, "carve" a hard-won niche, "discover" natural resources), how they must interact (usually with suspicion and competition), or where they must position themselves on the species hierarchy (on the pinnacle). The Colliers behave openly and creatively, and their work becomes the language of bodies moving in a bioregion: the Western colonial image of man as subject moving relentlessly across a landscape as object gives over to a reciprocal flow of human/non-human influences and intents. Happiness ushers the Colliers into this flow and later, they experience anger,

sorrow and fear, but the intensity of interspecies bioregional imagination is constant.

In *Three Against the Wilderness*, the Colliers know their bioregion as a series of climatic and organic changes. Because they depend on the ecosystem for sustenance, they are vulnerable to these changes, experiencing bioregional change as it occurs, and they undertake their restoration project in this vulnerable state. As Eric and Lillian begin repairing the beaver dams, they work alongside their fellow animals. With "the encouragement of the rancher Moon," they decide that: "In a few day's time, as soon as the frost [is] gone from the ground, we too [are] to become beavers of sorts" (95). The work they would do to repair the beaver dams at first seems "a sheer impossibility," but by allowing an exchange of beaver-thinking to influence their restoration, the task becomes a "grand design" and a bioregional project (95). They work to repair and maintain the beaver dams and to flood "every acre of marsh upon the creek," all "without doing harm to anyone else" (95). Proceeding to " emplo[y] the tactics of a beaver itself," the pair study the materials and method the beavers used to build the dams (96). They gather the same kinds of sticks, boughs, mud, and gravel, and apply them with "the same principle" the beavers used, because, Eric says, "if it was good enough for beavers it was good enough for us" (96). Collier writes that they strive to harm "no-one" and to repair the watershed for all the species (96). The Colliers, at the moment when their humanness would most limit their knowledge, humble themselves to the beaver. As a result, relations

between humans, animals, plants and the elements thrive in a regenerated and regenerative bioregion.

Within weeks, with two dams repaired, the marshes are alive with “crops of aquatic grasses and tubers” (97). The roots had been dormant, needing beavers (or beaver-behaving humans) to reflood the marshes. Within months, mallards, mink and Canada geese return to the marshes. Eventually beavers come back, ranchers’ irrigation ditches fill, and the Colliers make a living hunting and trapping the Meldrum Creek watershed.

The Colliers, however, are trappers and hunters first, conservationists second. Later in the narrative, Eric is enraged when wolves attack an “old mother beaver” who would have “give[n] birth to four or five sturdy kits each June for many a year to come” (207). He hates the wolves, their “sanguinary lust for destruction,” and in dramatic prose, mourns their inscrutable killing:

> There was black rage in my heart, an oath on my lips, the day I stalked broodily around one of our finest beaver colonies and marked the telltale evidence of the havoc that Wolf’s penchant for murder had wreaked upon the beavers . . . Here before me was the wilderness in its sourest mood: a mother beaver killed for no useful purpose whatsoever – at least, none that I could think of. (Collier 207)

Collier’ anger, as he vows to kill “the murderer” wolf, is irrational, since the beaver population thrives, and the wolves pose no threat to the lodges. Here,

perhaps, his emotion betrays his sense of colonial ownership of the beaver dams. By Collier's reckoning, he and Lillian have built and populated the dams, and only he and Lillian trap – and kill – the beavers. "Wolf" kills for "no useful purpose," for no reason discernible to humans. Eric sees the wolf's killing is chaotic, unpredictable, unsystematic.

But trapping beavers for their fur is likely beyond wolf and beaver understanding : rationality belongs to the species with the narrative in hand. The wolf's actions tear an incomprehensible fissure in the Colliers' bioregional restoration. By considering the flourishing beaver dam an ultimate expression of ecological health, and by rejecting wolves from the definition of a healthy watershed, Collier limits the imaginative reach of his bioregional restoration. In the end, Collier hunts the wolves with the same passion that he conserves the wetland.

Suffused as it is with the fears and desires of human subjectivity, motivated as much by the fur trade as by respect for ecology, the Colliers' can partly be read as a work of instrumental rationalism. However, I think that dismissing the bioregional ecosophy in this book because the Colliers continued to trap and hunt within the colonial fur economy would be a shallow ecology. The Collier's ecosophical limits resonate with limits urban and rural people face today. While wolves and the colonial fur trade may not find direct parallels to contemporary ecologists and biroegionalists, trade, species hierarchies, and

consumerism often limit the most sincere bioregionalist. The bioregional particulars change while human limits recur. In Chapter Two of my project, interviews with people meeting climate change in Northern BC provide examples of the potential and the limits of ecological action and restoration.

Back-To-The-Land: Christine Peters' Bioregional Attachments in *The Lure of the Chilcotin*

Restless urbanites like Hobson, Phillips, and Collier have been moving to the BC interior for more than a century. In the 1960s and 70s, settler movements to the BC interior were influenced by the rise of the civil rights, war-resistance and back-to-the-land movements (collectively generalized as *hippies*). Because many of these settlers took care to avoid detection, there is no accurate number of their population in the 1960s and 70s, and it is unclear how many stayed in BC. Estimates range from 10,000 just in BC to 100,000 across Canada, and further research is currently underway on this particular migration (Brown 206). Many of the 1960s and 70s back-to-the-landers, inspired by early bioregional and ecological writings of Peter Berg and Gary Snyder, created small farms in the Cariboo-Chilcotin and the Kootenay regions of BC. Many of these farmers remain in the province, and some still work on the farms and ranches they settled. The back-to-the-land movement in BC has generated significantly less cultural lore than early twentieth century ranching and farming settlement. Some self-published memoirs can be found at gas stations and grocery stores in the BC

interior, and *Planet Drum* features a small collection of essays about back-to-the land farming in the 1980s.

The back-to-the-land movement, accompanied by the publication of poetry, books, essays and helpful periodicals (*Harrowsmith* and *Mother Earth News*), was a cultural practice of some of the earliest bioregional messages. In the 1974 "Reinhabitation Message," Peter Berg predicts that humans will soon "begin to reinhabit the earth as planetarians, starting where we are, aware of where our food & water are coming from" (53). Humans will be " [a]ware of what the land beneath our feet is doing, how it works with the unique life & weather of that spot" (53). Reinhabitation of the "soil, forests, minerals & wild places" would heal exploitation, bringing life to land made barren by industrial resource extraction (53). In 1978, Berg and Raymond F. Dasmann's essay "Reinhabiting California" called for "reinhabitation, a process that involves learning to live-in-place" (81). Berg and Dasmann provide the first clear articulation of bioregionalism, describing the development of a "bioregional identity" as a "term [that] refers both to geographical terrain and a terrain of consciousness – to a place and the ideas that have developed about how to live in that place" (82). Berg and Dasmann imagine bioregionalism as a rural enterprise with "smaller farms" providing a wide range of "food species" and even bioregional media with information about "watersheds" and "cooperative planning" rather than "city-consumer information" (86).

So, while there are still few published accounts of back-to-the-land living in the northern interior of BC, and this is an area of significant potential for historic and literary publication, I am discussing one back-to-the-land memoir, *The Lure of the Chilcotin* (2006) , a self-published memoir by Christine Peters. Written after 38 years of mostly off-the-grid living in the forests around Tatla Lake, Canim Lake, and Williams Lake, this memoir combines personal autobiography with reflections on the land, the climate, and the animals. This is not an elegant narrative. It is riddled with apoplectic attacks against enemies, and includes a religious conversion in which the narrator condemns most of her earlier actions as sinful (including her identification with the "hippy" culture of the 1960s and 1970s). *The Lure of the Chilcotin*, however, is a narrative about bioregional reinhabitation, and its prosaic quality renders it a valuable grassroots contribution to a bioregional portrait of the mountain pine beetle forests of the BC northern interior.

Peters' memoir is about living in a remote non-urban setting. When she writes, she is living in "a rustic cabin near Tatla Lake, British Columbia, three miles from the nearest neighbor and two and a half miles from the nearest stop light," and has lived like this, in a series of handmade cabins in the forested areas of the Cariboo Chilcotin for "thirty-eight years" (i). While Peters first recounts her moves from Ithaca, New York, to Vancouver and the Sunshine Coast in BC, most of the memoir is dedicated to her decades of homesteading in the Cariboo Chilcotin, and as such, is a bioregional narrative of living with pine forests and

watersheds. Some of the values and practices of bioregionalism – locatedness in a bioregional traversable in a short period of time, observations of seasons, accounts of interactions with animals, plants, and weather, and questions about the best way to create alternatives to consumerist culture – are present in *The Lure of the Chilcotin.* Along with bioregionalist themes, Peters accounts for a life of radical politics, rebelliousness, romantic entanglements and religious conversion.

Peters recalls one of her first journeys through the Cariboo-Chilcotin, undertaken with a set of "detailed forest cover maps" indicating species, height, diameter and density of trees (46). Peters, her first husband and their young child are traveling by horse, exploring the Buckhorn Lakes. This journey has no particular goal other than traveling across the land. Peters and her family are often semi-nomadic, carrying basic provisions and relying on hunting and gathering for most of their food. Unlike Hobson and Collier, whose journeys seek trapping and ranching territory, her journeys are taken as expeditions to learn about her new home, to locate food gathering grounds, and to increase her sense of herself as a capable wilderness explorer. Oddly, Peters' memoir does not explain how a middle-class college student from Ithaca, NY, learned how to hunt, trap, and build log homes in the BC interior. This lack of pedagogy suggests that Peters is dedicated to a vision of herself as individually heroic, and in this way is more like Hobson than Collier. Certainly Peters learned her wilderness skills from neighbours, fellow travellers, or guide books. At times, Peters

acknowledges her awkward failures to prepare for inclement weather and difficult terrain. Peters describes some of these early journeys as somewhat ill-conceived, fueled by the enthusiasm of urbanites romanticizing their back-to-the-land pilgrimage – this occasional humility is notably lacking in both Hobson and Colliers' memoirs.

Typical of many back-to-the-landers in the 1970s (according to historian Dona Brown), Peters and her first husband are looking for a home as far away from "society" as possible. After nearly starving to death trying to live on a remote beach on the BC Sunshine Coast, they move to the Cariboo Chilcotin and seek a wilderness untouched by "society." Peters does not explain their aversion to "society," but suggests that her husband was mildly paranoid, shunning anything resembling 20th century western society, including roads, stores, suburban houses, hospitals, and towns. The bioregional vision of reinhabitory utopic cultures, in this case, becomes a phobia of urban centres. Thayer and Berg describe bioregionalism as a reinhabitation of culture *and* nature in contemporary times and would not advocate such a drastic rejection of contemporary western culture. Sale, in *Dwellers in the Land: The Bioregional Vision* recommends a rejection of consumerism and urban living, but stresses the "necessity [of] a more cohesive, more self-regarding, more self-concerned populace, with a developed sense of community and comradeship" (78). Self-sufficiency, Sale clarifies, "is not the same thing as isolation," and bioregional culture should develop as a shared, community understanding of how best to

live sustainably (Sale 78 – 79). Peters' narrative, in its honesty, shows the weaknesses of a bioregional vision undertaken by only two similarly-educated young people: diverse communities, integrated with local cultures and historical knowledge, have greater potential for developing sustainable bioregional attachments.

Through laboring their home place, Peters and her husband develop bioregional knowledge. This knowledge does not necessarily accompany goals of ecological sustainability. That is, although much bioregional information is present in this memoir, an ethical bioregional consciousness is far less consistent. Once in the Chilcotin, Peters and her husband find their "main hazards" traveling these forests are "the second-growth jack pines (lodgepole pines), 'thicker than the hairs on a dog's back' which are impossible to get packed horses through, and the swamps" (46). This particularly dense forest, known as a "dog's hair" forest, is described by biologists Syd and Dick Cannings as the result of pines growing in the "bright sunlight" of a "fire meadow," a forest cleared by natural fire:

> . . . the young pines grow quickly. If too many seedlings grow up, however, they form an amazingly thick forest of straight, skinny trees – called a dog's hair forest –and their growth can be slowed and stunted. Sometimes trees a little over a metre tall can be seventy years old. Over the years, most of these trees are shaded out by faster-growing

> individuals and die and fall, creating a tangle resembling a pick-up-sticks game. The surviving pines are tall and slim – they can be 15 metres tall but only 15 centimeters in diameter! Between the slender logs, spruce and fir seedlings grow quietly in the cool, humid shade and after a couple of hundred years overtop and replace the sun-loving pines (Cannings 204).

Peters recalls this frustrating journey through the "dog's hair forest," not knowing she is witnessing the young stages of forest succession (Peters 46). So, while I appreciate the bioregional clock that forest seral stages set, and I wonder how the density of this same stand has changed since Peters wrote this book, Peters' account of the "dog's hair forest" is similar to Hobson's descriptions of vast pine stands and muskeg. In both cases, the landscape is remarkable only as a setting, or impediment, to the settlement causes of the memoirists. These books, collected in my project, contribute to a bioregional archive of the pine forests, but on their own do not comprise bioregional texts.

A few days into this journey, Peters' horse falls ill, and her family camps while waiting for the horse to recover (48). They make short day trips and find a "natural twenty-acre meadow" close to a creek and far enough from popular hunting spots that hunters would not see them (48). Peters' constant search for secluded places, away from the taint of human encounter, resembles Hobson's need to proclaim the Chilcotin unoccupied. In both memoirs, the narrator's need

for culturally empty space highlights a dedication to individuality and, in the case of Hobson, outright material greed. And while Peters' search for land is tempered by her rejection of financial wealth, bioregional respect for cultural complexity is compromised by avoidance of human culture. Peters deems the meadow remote enough, well supplied with water and grass for horses, and her family decides to come back and "move [their] whole scene there," to the place they name Moosebone Meadow after bleached moose bones they find in the grass (48).

Peters describes their move to Moosebone Meadow as "a mission," but only writes briefly about the process of moving supplies and setting up their wall tent home (48-53). Haying, cutting wood, drying moosemeat, moving logs and building a bridge barely fill a page of the memoir. This settlement labour is usually the focus of settler memoirs, often including explicit explanations of each task. Peters' memoir shuffles past such accounts. It is mostly incidental when her narrative reveals that Peters, a city-raised young woman, could peel logs, build a cabin, trap squirrels and tan leather herself, and later, as single mother, did these and many more tasks without adult company. In this regard, Peters' account differs from 1970s and 80s Planet Drum bioregional publications' practical instruction for back-to-the-landers.

Peters does recall the loneliness and exhaustion of the first years of homesteading. She recounts being lost in "some bad weather and bad terrain"

along Knoll Creek on the way to Anahim Lake (56). Like Hobson, she is haunted by lodgepole pines: “cold wind was howling through a vast stand of dead jack pines, which swayed and moaned plaintively. I think they died from flooding” (57). And although Peters and her first husband escaped society for the “perfection” of their isolated settlement on the Chilcotin Plateau, Peters speaks directly to the reader – and herself – when she writes: “I’ve always said, ‘That’s why everyone’s so haywire and miserable up there: it’s the only way to survive’” (58). Peters expresses no love for the forests, the climate, or the watersheds: the water drowns the trees, and the wind is frightening. Her place-based knowledge develops through will and necessity, and perhaps the absence of appreciative description of her home place is due to the difficulty of living through the long winters and insect-alive summers of the spruce and pine forests.

Later, leaving her husband and their young son for a romance with another homesteader, Sage Birchwater, Peters hitchhikes and walks towards Stamford’s trapline, she feels “so liberated,” delirious with “freedom after years of stifling intimidation” (61). She is “running on adrenaline,” anticipating an “overwhelming joy” (61). Peters narrates her young self wandering joyfully, naively, through the pine forests in search of love. While searching for Birchwater, Peters waits “with not one other human being around” in a cabin one thousand feet above “Twist Creek, locally known as Granite Creek”:

> I explored the jack pine flat where the cabin was located. All around it on the granite snow mountains shot up, limiting the sunshine to one and a half hours a day this time of year [sic]. I didn't see much sun anyway, as the weather remained mostly cloudy. (64)

Located in the shade of granite and pine, Peters spends five days anticipating romance. She finds a guitar and composes songs, enjoying what she remembers as one of her first and most precious times of solitude. Peaceful, even happy, she thrives in this dark, cloudy place, living between her domestic responsibilities and an imaginary romance. Peters comments minimally on her surroundings. The cloudy skies, the "milky bluish colour" of the creek, the dense dog's hair pine forest are location and event (64). They are not, as described in earlier settler memoirs, limited as either resources or impediments to human settlement. Rather, Peters' romantic rendering of the pine "flat," likely a rocky plateau or butte generates a biophilic attachment to a place she inhabits for decades. The superficiality of her romanticized, human-centred appreciation of the place she waits for her lover might compromise a complete bioregional ecological ethic, but the attachment Peters builds to the land is sustained over ensuing decades of backcountry living. This commitment to place, entangled with Peters' episodic human romance narrative, sustains the memoir as an ecologically located, if not entirely ecologically sustainable, narrative.

Looking back at these early days of her settlement, Peters identifies her younger self as one of the "back-to-the-landers" who "reveled" in "lawlessness" (82). She recalls:

> Some of us hippies squatted on crown land, hunted and fished wherever and whenever just like the Indians do, grew and dealt marijuana, made beer and wine (and even some moonshine), disturbed water courses, drove without insurance and licenses, and generally thumbed out noses at convention. (82)

Flouting the law and social "convention" does not automatically generate bioregional practice. Ironically, their practice of hunting and fishing in disregard of conservation regulation and diverting water as it suited their needs sets the back-to-the-landers closer to the practices of earlier colonial settlers. Her assertion that "Indians" likewise "hunted and fished" in irregular, unpredictable patterns, betrays willful ignorance of First Nations cultural practice and complex, seasonal land use. The Carrier, Secwepmec and Tsilhqot'in people traditionally moved through shared and negotiated hunting, fishing, and trapping grounds. These land use agreements would not have been part of Peters' knowledge of the land. Her easy comparison between "hippies" and "the Indians" invokes a racist stereotype of the disorganized, lazy and instinct-driven ecological Indian. For colonial settlers, dismissing indigenous people as lazy and superficially attached to land use excused white land claims. Peters, in her ignorance, is an

apologist for the very colonial powers she thinks she is – or at least was – trying to flout. Bioregional awareness demands more: Peters would have to learn, and reflect on, her own role in white land claims to indigenous land. The antiestablishment qualities of bioregionalism and the back-to-the-land movement would then not be compromised by easy acceptance of unexamined white settler privilege. Peters does not rise to this opportunity for examination of her position, and here again, her narrative falls short of modeling bioregional sustainability.

The bioregional promise in Peters' memoir is her accumulation of place-based knowledge and reinhabitation skills, the weakness is the disregard for community-generated knowledge as well as historical and contemporary First Nations land use knowledge.

June Wood's Nechako Country: In The Footsteps of Bert Irvine: Emergent Bioregional Vision

Environmental philosopher and feminist Val Plumwood calls attention to scientific and economic claims to objectivity, and the accompanying definitions of reason as that which is emotionally removed from a subject. Reason, Plumwood argues, has been corrupted by the interests of the politically and economically privileged groups who are located higher in the gender, capital, and species hierarchy. Plumwood believes that contemporary science and economics have made reason "an instrument of oppression" (14). This corrupted configuration of reason relies heavily on dualism:

> The polarizing aspect of dualism involves sorting a field into two homogenized and radically separated classes, typically constructing a false choice between contrasting polarities in a truncated field which can be conceived in much more equal, continuous and overlapping ways. (17)

Hobson's striation of landscape as either profitable or bothersome exemplifies this "ratiogenic" dualism (17). Perceptions of pine forests as either green and alive, or beetle infested and dead is a later manifestation of this same "false choice" striation of a complex ecology (17). For Plumwood, rationalist thinking limits understandings of unpredictable, complex ecosystems, thus failing to protect human and non-human interests. She calls for a "polyphonic" way of thinking, one that moves outside of species privilege and instead acknowledges overlapping influences and interests (17 – 19). As an example of polyphonic thinking, I'd like to look at a section of a recent memoir about living in the BC northern interior, one which follows the settler genre norms for seven of its eight chapters, and then offers an emerging bioregionalism in the eighth, and last, chapter.

In 2007, June Wood, a woman born and still living on the Nechako River in Sub-Boreal Spruce and Mountain Hemlock biogeoclimatic zones, published *Nechako Country: In The Footsteps of Bert Irvine,* an account of her family's history and her father's journey to pioneer on the Nechako. In chapters one through seven, *Nechako Country* details Bert Irvine's life. he hunts and travels in

dangerous conditions, he brings a wife to his settlement, and together they raise children at their homestead. In the last chapters of her book, Wood departs from the biography of her father to describe the changes a dam on the Nechako River has brought to the area. Woods presents a bioregional genealogy of the river, recounting her early memories of the river, her father's first impressions of the river, and contemporary fears for the rivers' ecosystems. The focus of the book *shifts* from stories of settler exploits to a bioregional account of ecological complexity and industrial damage in the Nechako watershed. The narrative of settler discovery and settlement gives way to a narrative of concern for the forests, the forest-dwelling creatures, and the role of industry in the BC interior.

Woods describes the effect of a road built by logging company West Fraser Timber, on the Nechako River. The road crosses the Nechako River's Cheslatta Falls, and the bridge across, Woods mourns, "is an ugly scar across the beautiful face of the falls – an aberration against nature" (153). The "wide gravel roads" that branch off Holy Cross Road are "insidious tentacles reaching east and west into formerly pristine remote country," spruce and fir forests of the Nechako River valley and surrounding mountains (153).

The Nechako River runs through a Sub-Boreal Spruce biogeoclimatic zone, with some regions of Engelmann Spruce/Subalpine Fir zone at higher elevations. The Sub Boreal Spruce zone "occurs in BC's central interior, primarily on gently rolling plateaus" (Mackinnon *et al*. 14). The forests the gravel roads

intersect would consist of “white spruce and subalpine fir,” some stands of “lodgepole pine,” and many diverse and “abundant . . . wetlands” (Mackinnon *et al*. 14). Moose browse in the spruce forests, and woodpeckers, grouse, porcupines, hares, wolves and foxes are abundant in the spruce and fir stands. Caribou herds can be found in the “spruce kingdom,” although their population has declined (Cannings and Cannings 220- 225). Naturalists Cannings and Cannings describe the spruce forests of the BC northern interior as ecosystems of remarkable diversity and “immense” forests (196). In these forests, Woods writes, the logging roads cross wildlife corridors, “making moose more vulnerable” to hunters, and the “weed species” that grow in logged areas are treated with herbicides Woods suspects are harmful to the moose (Woods 156).

In this last chapter of *Nechako Country,* Woods’ narrative becomes a history of bioregional inhabitation. She recalls how, before the roads were laid, her family and their horses forded the Nechako River and then traveled through to Holy Cross Lake, “cutting trail and blazing” as they went (153). She remembers that during this journey, the Woods came across “the old wagon road” that the Cheslatta Carrier Nation had used before they were “flooded out” by an earlier dam, “forced to leave their territory” (154). Here is a bioregional history, attentive to First Nations and settler land use, sensitive to environmental change.

Woods' memoir was published during a time of remarkably large forest fires and the appearance of the anomalous mountain pine beetle, and she reflects on their effects on her bioregion. Woods compares the damages from logging road intrusion to effects of forest fires that "swept over [the landscape] in the past centuries," concluding that logging has been worse than fires "because the biomass (the trees) has been removed" *sic* (155). Woods and her family have lived through forest succession often enough to know that forest fires, while terrifying, are part of forest regeneration. She is less confident in the ecological outcomes of intensive logging. Further, Woods writes that "the mountain pine-beetle epidemic has played a major role in the speed with which the landscape has been altered, but the rate of cut and whether or not it was sustainable was the subject of considerable debate even before the beetles hit" (155). The mountain pine beetle, like forest fires, is seen as an agent of change unlike logging. Woods observes these changes with place-based knowledge and understands them as endemic to the forests. Her memoir concludes that the Nechako region "has changed . . . and will change some more, but life is still beautiful," and she will be staying on in her home bioregion (173). Woods' determination to stay in her home place, regardless the effects of road building, clearcuts, mountain pine beetle, and fire, is a bioregional attachment to a home she has come to know and appreciate. Her final two sentences of the memoir, expressing her steady inhabitation of a treasured and known bioregion are incantations for bioregional (re)inhabitation: "The much-needed, healing rain

finally arrived last night, and a light mist veils the top of Bungalow [mountain]. This is good; we will be picking blueberries this year after all" (173).

The bioregional vision, Sale writes, "does require a certain amount of shifting of attitudes and rethinking of premises . . . but nothing wrenching, really, nothing that has not been thought and felt before by all kinds of people" (179). Bioregional reinhabitation of ecosystems asks that humans" come to know one's region . . . understand its ecological imperatives" and appreciate the sensitivity of all life on Earth (169). Sale knows that his vision is utopic, but he believes it is not *new* or *revolutionary*. Rather, it is a timely reminder of responsibility to the land that furnishes our life standard, our homes, and our sustenance. These imperatives, while familiar, have been forgotten in two centuries of industrial change, and in British Columbia, by more than a century of large-scale resource extraction. Woods' bioregional vision recalls this sensitivity to a home she already knows well, and the urgency of this sensitivity and reinhabitation is in the context of increasingly obvious ecoharms delivered by resource extraction.

Twenty years before Sale, Berg and Dasmann's call for reinhabitation, is a call to awareness of the necessity of knowing and care for a home place and is perhaps more radical in spirit, rejecting the attractions of consumerism and technology more outright than Sale does, at first. Collier's memoir, seen in the context of the rise of bioregionalism, is a perceptual reinhabitory narrative, and perhaps an early (unbeknownst to Collier) bioregional text. Collier, of course, is

doing nothing “wrenching,” and in fact, he acts on the advice of Lala, a woman born in the nineteenth century. Bioregionalism is nothing *new*, biophilia and the desire to restore ecosystems in BC cannot be claimed only by environmentalists. The new condition in bioregionalism in the interior of BC is climate change, and anomalous climate and population events like the mountain pine beetle.

CHAPTER TWO

BIOREGIONALISM IN THE BEETLE KILL FORESTS: FIRST PERSON ACCOUNTS OF SETTLER CULTURE INHABITANTS OF THE CARIBOO-CHILCOTIN PINE FORESTS

In the northern interior of BC, bioregionalism awareness proceeds from encounters with the forests that have been affected by the mountain pine beetle. The jack pines and lodgepole pines, the scattered birch and poplar groves, the grasslands, the watersheds rich with plant, animal and bird life, and the passageways through understory for large resident and migratory mammals have been radically altered, and humans living in the bioregion meet the changing ecology in a variety of encounters. From these perceptual encounters an ecological pedagogy, between the bioregion and the human, may arise. However, the mountain pine beetle's disruption to economic stability in pine forest timber regions creates understandable stress for local communities. The notion that perception of a changing bioregion can be a process of continuing enlightenment and growing biophilia is severely challenged by the economic toll of sudden landscape change. As I study settler narratives about the mountain pine beetle, I am wary of the problematic tradition in ecocriticism, and bioregionalism, in particular, of romanticizing a life lived close to a relatively natural, unpopulated environment. Settler culture humans are imbricated in the resource extraction culture that I wish to reconceive as a culture with potential for bioregional sustainability. Their knowledge of the bioregion contributes to

the resource extraction culture by way of generations of logging and lumber milling communities. Their knowledge of resource extraction and bioregional particulars belongs to the bioregional cultural imagination of the BC northern interior. This troublesome allegiance between cultural loyalty, logging, and timber processing and ecological knowledge of the bioregion does not rule out the development of a sustainable bioregional culture. In fact, I believe that for bioregionalism to thrive as a culturally and ecologically sensible model, it must take into account labour narratives, narratives of migration and economics, and narratives of ecological change.

In this chapter, I look to narratives of contemporary settler culture individuals in the BC northern interior. I ask the settler culture individuals about their experiences with the mountain pine beetle. With respect for the perceptual learning that can occur that can occur during extended, repetitive, and attentive encounters with a home bioregion, I read their narratives for bioregional wisdom in the face of increasing climate change and the ecological, economic, and political shifts radical landscape change like the anomalous mountain pine beetle occasions.

The notion of perceptual ecology comes from a focus on empirical knowledge, gathered through experience with an oft-frequented bioregion.

Perceptual ecology is thus a pedagogy and a practice: the learning is the doing, and the ecological doing creates further knowledge. In *Bringing the Biosphere Home: Learning to Perceive Global Environmental Change*, Mitchell Thomashow advocates the practice of "perceptual ecology" in which the "visceral impressions" of a bioregion "are virtuous both for the experience and its interpretation" (75). This process of careful ecological observation is also beneficial to the non-human life in the bioregion, because, Thomashow argues, perceptual ecology leads to a "responsibility" towards all life in the bioregion (77). Further, this sense of responsibility towards the home place would be informed with accurate knowledge, because Thomashow also recommends a perceptual ecologist ask "good questions" about "these trees . . . the soil matrix . . . the mychorrizal fungi . . . and global warming" in the home bioregion (75). In the context of the anomalous mountain pine beetle and the forests of the northern interior of BC, perceptual ecology would ask questions about the pine forests, the forest animals, the mountain pine beetle itself, and the watersheds in and around the forests. To Thomashow's formulation of perceptual ecology as a relation between humans and the non-human environment, I would add considerations of human vulnerability in the changing environment, as well as historic and ongoing issues of human claims to rootedness and belonging in the bioregion. For example, in the BC northern interior, settler humans belong to the bioregion because the land produces mineral, timber, and ranching wealth. Any biophilic perceptual ecology that ignores this dependence is, ironically, as

reductionist as resource extraction thinking that ignores ecological interconnectedness. The strength of my study is the inclusion of labour narratives and considerations of economic dependencies alongside narratives of settler relations with the pine forest ecosystem.

Some of the interviewees talk about meeting the anomalous mountain pine beetle with ecological curiosity as well as concern for their close human community in the face of such radical landscape change. They often, but not always, posit the "good questions" of an attentive perceptual ecology. For example, some people wonder about the ethical and biological difference between a tree felled by a human and a tree felled by the mountain pine beetle and the beetle's symbiotic fungi. These "good" perceptual questions are not answered in this chapter. Rather, the curiosity and attention necessary for the formulation of thoughtful bioregional questions signifies the development of a bioregional imagination, and the potential for a more sustainable settler culture in the BC northern interior.

Interview Process and Questions

I interviewed nine residents of the Southern Cariboo Chilcotin region, a region north of the Thompson and Okanagan Valley, west of the Alberta Border, and inland of the Coastal Cariboo-Chilcotin. The residents spoke about their experience with the mountain pine beetle since the early 2000s. These residents

continue to live in and around the settlements of Williams Lake, 100 Mile House, Lone Butte, and 108 Mile Ranch.

I also interviewed nine settler culture individuals for this project. I advertised for interview subjects with a poster approved by the University of Alberta Research Ethics Board, and received email and phone queries. The respondents contacted me with requests to participate. Some respondents passed along my contact information to other contacts and potential interviewees. Once we arranged a place and time to meet, I travelled to the Cariboo-Chilcotin region for the interviews. As in accordance with the Research Ethics Board, I brought questions that had been approved, as well as consent forms for the publication of research arising from the interviews. I also asked each participant whether they would prefer to be anonymous: each participant preferred to use their own name.

I asked each of the participants questions about their history with the lodgepole pine forests, particularly listening to the changes in their relationship to the forests. This relationship, and the affinities that build with a bioregional relationship, are key to understanding setter culture land attachment. I asked participants how their interactions with the pine forests may have changed over time, and whether they had any particular stories or memories about the pine forests that they wished to share with me. I asked interviewees about how they

first learned about the Mountain Pine Beetle, and whether they had any stories or memories of the anomalous Mountain Pine Beetle they might wish to share with me. Further, I asked participants to speak about their experiences with the changes to the forests, and how they felt those changes affected their families and communities. In the interviews I sought to allow interviewees to narrate their history and ongoing relationship with the pine forests in a manner they were comfortable with. In this manner, I sought the interviewees' bioregional narratives. That is, the interviews resulted in narratives about living in place, and living alongside the radical landscape change brought by anthropogenic climate change in the form of the anomalous mountain pine beetle. This process brought forth stories of perceptual learning about a changing ecology. The participants' stories were of remembered sensory impressions of the anomalous mountain pine beetle, and as the interviews proceeded, reflection on the mountain pine beetle brought forth discussions of the individual and communal challenges of living with ecological change, as well as the responsibility of individuals and communities in the face of these changes.

The scope of my project did not allow for respectful, attentive discourse with the First Nations communities in the region, and I did not want to appropriate narratives from the First Nations communities without adequate consultation. The Williams Lake and 100 Mile area have been contentious sites of land rights and land use, including the 1995 Gustafsen Lake standoff between a cattle rancher and Indigenous people living in and around 100 Mile House. There is historical and ongoing animosity between First Nations and settler communities in the Cariboo Chilcotin. While the Province of British Columbia and First Nations governments in the Chilcotin have agreed to MOUs, and in 2011 to the *Tsilhqot'in Framework Agreement Among the Province of British Columbia, the Tsilhqot'in Nation and the Tsilhqot'in National Government*, there is no treaty agreement to land ownership in the Cariboo Chilcotin. It is unceded territory. A further project would include lengthy consultation with First Nations communities, and would seek to understand the anomalous mountain pine beetle and climate change as it they affect First Nations land and culture.

My current project aims to intervene in settler culture in the BC northern interior, and to challenge reductionist models of the pine forests as timber resources for BC's colonial government. Therefore, my communication was with residents of settler culture, descended from colonists. I collected interviewees

through local advertising, word of mouth, and the snowball effect. I asked a set of open questions about the settler residents' experiences with the forest and the anomalous Mountain Pine Beetle, and I allowed the interviewees to lead the conversations to secondary topics most important to them. I spoke with the residents in person, and we often observed and spoke about surrounding forests and trees. The Southern Cariboo Chilcotin region has been intensely altered by provincial and industrial infrastructure, multiple forest fires, an increase in temperature, over a century of intensive softwood logging, and the Mountain Pine Beetle population cycles. The region is undergoing economic challenges related to the forestry industry, and forest fires are a common seasonal occurrence.

Many of the interviewees spoke about the mountain pine beetle as though it were a natural, economic, political, or climatic burden that their community was forced to shoulder. Many people, including those I spoke to off-the-record, expressed a sense of injustice about the effects of the anomalous mountain pine beetle, as if they were being manipulated somehow. I am interested in these narratives of suspicion, even paranoia; they imagine foreign (at least, foreign to their northern interior bioregion) influences that could have contributed to the anomalous mountain pine beetle population growth, and whether accurate or invented, do generate some resistance to government and industrial description of the mountain pine beetle as a catastrophe calling for urgent state intervention. That is, some residents were unwilling to believe that

their home bioregion could naturally turn from a green, safe, forest, into a frightening landscape of drying, red trees. This drastic shift, they proposed, must be the fault of external forces. While the good perceptual questions about the mountain pine beetle might be more accurately questions about climate, species diversity, and fire repression, I respect the residents' anxieties as expressive of the intensity of rapid bioregional change. Most often, people blamed self-interested foreign-owned forestry companies, the BC or Alberta provincial government, or the federal government. This blame is not entirely incorrect, since the conditions for the anomalous mountain pine beetle were created by forestry companies in co-operation with government agencies. In northern BC the provincial and federal governments are most definitely understood as outsider forces. In a bioregional sense, this is an accurate understanding of the citizenship of corporate logging and the forces of the provincial government.

Alternately, in an interview with a group of back-to-the-land farmers, I encountered a loving agricultural attachment to a watershed ecosystem in the midst of climate change. Their narrative departed from human-centred ruminations on the politics of the mountain pine beetle, and attended to the overlapping interests of deer, cattle, pine, and human. The farmers' determination to continue farming, to do as little harm as possible to the forests, and to remain skeptical of large-scale industrial farming and forestry exemplifies the flexibility of a bioregional culture during climate change: reinhabitory, inter-species, non-dogmatic, and responsive to change. Most interesting of all, by

listening to the perceptual observations of people living with the anomalous pine beetle, I build an understanding of the challenges of bioregional culture in the time of climate change. I describe how bioregional culture, with an emphasis on continual perceptual awareness of ecological complexity of place, offers ways for humans to re-inhabit places undergoing the sometimes radical effects of climate change.

Attachment to a bioregion compromises claims to a purely objective epistemology. Bioregionalism, after all, is built on the premise of a biased attachment towards a place: that local place is to be known more than any other, is to be a site of dedicated material, affective, and ontological attachment. In her introduction to *Vibrant Matter: A Political Ecology of Things*, Jane Bennett writes that "the capacity to detect the presence affect requires that one is caught up in it" (xv). I agree with Bennett's premise that attunement to objects compromises claims to absolute objectivity. So, for the purposes of bioregional thinking, and for the kind of ecological attunement Bennett advocates, being "caught up" in that particular milieu is perhaps a requirement rather than a compromise. Bennett recommends that an observer "suspend suspicion and adopt a more open-ended comportment" (xv). This perceptual openness is a prerequisite for bioregional learning and the development of a sustainable bioregional culture, and I look for this in the interviews. As well, the suspension of suspicion, and a willingness to belong to the bioregion affected my own work on this project in a number of ways.

While researching, and now, while writing, I have been at once "caught up" with and distant from the interviews. As I interviewed subjects, I aimed to maintain an objective distance from the interviews by keeping my political, ecological or other biases to myself. I reminded myself that my opinions are most often formulated far from the changing forests, and were, in fact, conceived quietly, alone, with a stack of books. I interviewed the subjects in the Cariboo-Chilcotin region, often in their homes, in the presence of the anomalous Mountain Pine Beetle. The subjects were often shy or self-deprecating, and I worked to encourage the subjects to speak freely. However, I was also deeply implicated in the interview topic. I interviewed people living in my childhood landscape, and it was during this trip that I really perceived, for the first time, how much the forests have changed over the past decade of the anomalous mountain pine beetle. The thick, shadowed pine forests I learned to run, read, and climb in have become green, bright, open stands of deciduous trees. Hills and mountains seem lighter, smaller, without the heavy cover of pine, and some forests have been completely cleared and are now meadows of stumps and bushes. I found evidence of the economic changes in the region in the closed schools and emptied shops. This was my first visit to my childhood bioregion in more than ten years. At one point, I stopped to photograph a stand of dry, red, pines, mixed with bushy green undergrowth, along a stretch of Highway 24 that I knew from my childhood. As I stood looking at the site, I grew increasingly tired and dizzy, and I felt as though I were viewing my body from far away, and that

the forest itself was far away. It was as if I could not see the red forests, as if the lapse between materiality and understanding could not be bridged. The change in the landscape was too uncanny, too bizarre. It was my same forest, but unknowable, haunted with an unreal sensation. I proceeded to my interview with a group of farmers, but I could not shake the feeling of distance and dizziness, an uncanny landscape disorientation in my landscape of origin.

A change in forest density and colour may be perfectly rational when explained biologically and climatically, and the change, in fact, took place over a twelve-month period. My perception occurred in a moment of surprising awareness, but the anomalous mountain pine beetle has been a century in the making. For a human first encountering the altered forest, the intense shifts in colour, space, and shape present a sensory burden that is difficult to navigate. A dislocation occurs; in my case, I lost continuity between my memories of the green pines and my presence in the same pines (now black and red). The mountain pine beetle altered what I had once claimed as *my forest*, my home bioregion, and I could not imagine an easy reinhabitation.

I include this narrative because bioregional attachment to a home place should be understood as a relationship as complex as any ecological system. The bioregion is not a frozen, romanticized, pasture of childhood memories, or a land loved into home by adult labour, or even a land made home by the study of species and ecology. Rather, along with perceptual awareness, a bioregional

attachment to a home place demands a willingness to *give up* what might be hard-won knowledge of the home place. That is, bioregionalism should not be defined as a set of facts about a watershed or forest; otherwise, when the watershed is gone, when the forest composition is altered, the bioregion disappears and with it the human commitment to sustainable living. I think that this is precisely what has happened to many inhabitants of the pine forests of BC; their love of their home bioregion was predicated on the cool green pine forests, the thick blue-green forested mountains, and an expectation of pine forests as an eternal natural resource. My own attachment to my home bioregion has been challenged by the anomalous mountain pine beetle.

"You Cannot Hack Your Way Through It": Rita Geisbrecht and Moving Beyond the Ruse of the Green Wall

My first interview was with Rita Geisbrecht[5]. Geisbrecht describes herself as a gallerist and publicist, manager and traveling assistant to her partner, nature photographer Chris Harris. Geisbrecht was once a hairdresser and occasionally supplements her income cutting hair in her home. Rita Geisbrecht contacted me by email, offering to speak with me about the pine beetle.

Rita Geisbrecht began our discussion of the mountain pine beetle in the lodgepole pine forests with the difference between seeing and perceiving the land. Geisbrecht maintains that most people don't leave their cars as they drive past forests along the BC interior highways. Car passengers believe that they

[5] Subjects were asked whether they preferred to remain anonymous or to be named.

"see" a vibrant, lush, forest, when they drive by a reseeded cut-block. A cut-block is a section of forest that has been clear-cut and has either grown in or has been replanted. Geisbrecht says that while a re-seeded cut-block is often perceived as "healthy," it is actually "dysfunctional:"

> . . . it's usually pine, they choke each other out. One species takes over, usually pine. You'll just have hectare upon hectare of semi-choked out saplings. They're so dense you can't walk through them; a rabbit would be the only thing that could grow there. You cannot hack your way through it. (Geisbrecht interview)

Geisbrecht's description of the re-seeded cut block narrates a perceptual ecological understanding of a changed ecosystem. She observes that only a very small animal could pass through it, that the experience of trying to move through the forest is unpleasant, even disheartening. In her narrative of moving through the dense forest, Geisbrecht describes altering her physical velocity to the speed of the cut-block. For her, the dense replanted forest is an unbalanced ecology in need of astute bioregional reinhabitation.

From a passing vehicle, it is imperceptible that this forest is an impasse to movement, and that it is a human-made coagulation of monocultural growth in what was once a once diverse, open forest. The very density of the growth, blurring into a sort of arboreal wall, is instead seen by automobile passengers as an *exceptionally healthy* forest: its vibrant greenness exceptional to the sickened

or sickening red, brown, and green forest. The passenger, impressed by the arboreal image whizzing by their windows, is therefore not developing a *sense of place*: Geisbrecht's "acute" experience with the cut block "brings home" the effects of provincial forestry practice. Thomashow's recommendation that people find "place-based perceptual observations so tangible, so visceral, so meaningful, that they resonate" from the local to the global, from particular to broad, is thus best answered by Geisbrecht's own admonishment to people to "get out of the car" and walk through the forests (Thomashow 102-1-3, Geisbrecht interview).

Rita Geisbrecht, speaking as a forest pedestrian, describes the re-seeded cut blocks as "unnatural" forests, saying that this kind of forest "does not in any sense mimic the natural succession of a forest, the natural waves of succession of a forest." It is, however, *still a forest*: the re-seeded or overgrown cutblock, like the mountain pine beetle inhabited forest, are varieties of the forested bioregion, much in need of creative bioregional reinhabitation. Like most forests, they are green, they are growing, they house animals and insects, and through mass and aesthetic call forth the notion of the forest. Yet, these "unnaturally" dense forests are such radical points of departure from the notion of a diverse, thriving treed bioregion, that, to Rita, they become botanical monstrosities. When Rita Geisbrecht voluntarily enters the monstrous suffocating cut-block forest, she willingly displaces her own pleasure and comfort by resisting the notion of the green forest as ideal scenery. This is a personal act of bioregional

reinhabitation of a forest altered by industrial logging. As such, Geisbrecht develops the perceptual awareness necessary for understanding ecological bioregional change.

Rita Geisbrecht also describes walking through what she and other residents called “beetle kill” forests. These are forests that Mountain Pine Beetles have territorialized and left, leaving the pine trees dry, with brittle, red needles. Many of the trees fall down. Geisbrecht told me that the pines have given way to aspen, birch and a rich understory. She describes these beetle kill forests as bright, open, and “alive,” and said that animals can move through them freely. Geisbrecht maintains that, while these forests may seem desolate from the roadside, with the dry black and red pines laying on the forest floor or teetering vertically, the experience of walking through the beetle kill forests is that of walking through a living, vibrant, diverse forest. For Geisbrecht, “the dead pines are like totems . . . very sacred.”

Rita Geisbrecht’s appreciation of the mountain pine beetle kill forest is in opposition to what Geisbrecht describes as “lies” from “the media, and from the newspapers, and from the forest industry, and from the government.” One of these lies is “that when the beetles come through and take out the pine trees, the forest is now dead. But a forest is not a stand of pine – a forest is a full living complex entity. With a complexity of integrated systems – that’s a forest” (Geisbrecht interview).

If humans are willing to think of a red and black pine forest as alive, they are more likely to enter that forest, to consider stewardship of that forest, or to develop a bioregional culture about that (otherwise monstrous) forest. They are more likely to notice what Rita Geisbrecht sees in the forest: "the amazing diversity of herbaceous plants, that are food . . . it's full of animals because the grazing is good, the ruminants are in there, the moose and deer, birds, it's full of birds, tiny frogs." In a perceptual ecology, the forest bioregion is an adaptable, shifting, space, alive to its own biological thriving. Through an experience of perceptual ecology, a human would attend to "the seeds, the small trees that are growing under there, which are not choking out, the way they are in the cut block, they are widely spaced, and they are . . . spruce and fir" (Geisbrecht interview). And thus the stewardship that a bioregional attachment extends to ecologies in British Columbia could be mobilized and extended to this flourishing understorey in a (newly configured) forest.

Without such an attachment to a forest as a home place, when settler culture classifies an ecological space as dead or dysfunctional, there are no longer ontological or even ecological barriers to complete annihilation of that ecosystem. In such a formulation, the mountain pine beetle forest exists in a state of ecological exception from ecological stewardship. Rita Geisbrecht summarizes the popular industrial rhetoric about mountain pine beetle kill forests (a rhetoric repeated in provincial and industrial documents):

> . . . you can take out the wood because it's dead anyway and it doesn't make a difference. But it does make a difference, because you are removing a huge amount of the material that the soil and the earth has produced . . . [a]nd if you remove it you remove a key component of the life cycle of the forest. And you completely disrupt the ground the understory and the ground and the dirt.
>
> And when you do that you open up the ground to invasive weeds and species, which you usually bring in yourself. When you are in a pristine grassland or untouched forest, you can actually see the trails that machinery makes by the invasive species they bring with them [sic]. Especially in the grasslands.
>
> So people think it doesn't matter if you bring machinery through, you drive through, but it matters, it matters.
>
> (me) *Because they see the forest as dead?*
>
> Yes. (Geisbrecht interview)

Thinking of a living forest as only that which is green, and moreover, harvestable for forestry, excludes the beetle kill from the bioregional forest. Even as a strictly etymological-botanical definition this is ludicrous, since the mixed-pine forest and the mountain pine beetle have evolved together, and are part of a single ecosystem. Pine beetles "belong" to the mixed-pine forest, and they precede the

logging industry. But when the definition of forest is limited as Geisbrecht describes, annual allowable cut-rates are increased, protection to this forest is not extended, and there is no future provision for the composition of the forest. In fact, *there is no forest* to speak of. In Geisbrecht's estimation, an understanding of what a forest can be should come out of measurements of sustainability of life in place. If the succession of life forms alters radically, as in a forest after the mountain pine beetle occupation, it is still a diverse ecosystem in (*forest) place*. Perhaps, in a bioregional epistemology, a forest is a place of diverse, even radically successive, organic life. The change in forest composition does not indicate a dead or failed forest.

At the end of our interview, Geisbrecht repeats her critique of those who complain about the pine beetle as a deathly pestilence but who never walk in the beetle kill forests. She worries about " . . . the distance, the disconnect. People don't give themselves time to go out and look and see for themselves, or to question what they are told. When did we stop questioning what we are told? You know, that's one side of the story, what's the other?" Geisbrecht describes a grounded, bioregional, citizenship, in which a person would go to the forests to see for themselves whether the beetle left only death and disease. This bioregional observer would visit cut blocks, trying to walk through them, relearning habits of the animals and changes in the understory. The bioregional forest-dweller moves with the forest bioregion, willing to abandon limited definitions of the altered forest as dead, ineffective, or lacking value.

The power of the notion that a beetle-kill forest is not a dead space speaks to the importance of reinhabiting an ecological value system. In *the three ecologies*, Felix Guattari writes that an industrially-centred "value system . . . is characterized by general equivalence, which flattens out all other forms of value" (65). A value system that regulates financial prestige and reward based solely on "human social activities" and then extends that system to non-human entities cannot adapt to species succession, and certainly cannot adapt to climate change (Guattari 65). Deeming beetle-kill forests as valueless – as *dead to the system* – might temporarily exclude the mountain pine beetle forest territory from protection and categorize it as industrial fodder, but as Rita Geisbrecht says, anyone who walks into the forests sees through the flimsiness of this arrangement. The beetle-kill forests are not dead. The plants and animals have not been killed. They flourish, and the multisensory exchanges available in these forests offer rich perceptual knowledge.

Geisbrecht describes a personal ecosophy – a philosophy generated by her interactions with her close environment – that values the dead pines and their milieu. While Geisbrecht appeals to a sacred presence, her focus is on the temporary forms of the dry beetle-kill pines:

> The dead pines are like totems. It's very sacred. And in Chris' [Harris'] work, more and more, the object is to convey the essential sacredness of the land, you know, the essential *integris* and divine. So the dead pines,

> when you walk through a dead pine forests, are like totems of our ancestors, they are like totems, and they are not dead, they are very much alive and vibrant and are part of the life of the planet. (Geisbrecht interview)

In this, Rita's final statement of our interview, she revives the "dead pines," including them in the life of the planet, both as spectral reminders of "ancestors," and as living "parts" of a living ecosystem. This ecosophy is a reversal of the fearful, mournful language used by media, industry, government and settler literature to describe dying or dead pines. For Geisbrecht, such a shift in valuation – a spiritual enactment of bioregional attachment – is as important as a change in forest policy. She describes it as a new way of seeing: "When you shift your focal range to that perspective you see something quite different, but it's in the interest of these short term people that you don't look, you don't look, it's in their interest, and it's very convenient that people don't look."

"Some Things, Men Are Just Pretty Helpless At:" The Importance of Humility and Community to a Decentred Bioregionalism

For this interview, I went to the small village of Lone Butte, to the Whistlestop Café, to meet with Howard Malm. Lone Butte is a small village built around a train station about 20 kilometres from 100 Mile House. Malm is in his 80s, and was born at Roe Lake, in the Cariboo, in 1939. Howard has always identified as a person from the forests. His experiences with both northern and southern interior BC ecosystems taught him that change, diversity, and

unpredictable population shifts are what humans should expect. Malm's narrative moves between loyalty to human employment in resource industries and a close personal connection to the mixed-pine forests. His attachment to the bioregion comes from a life spent in the forests, working in logging, hunting for sustenance, and growing up with a homesteading settler family. His experience of the pine forests is embedded in memory of his family, community, and labour. His narrative includes a respect for human labour in the forests and deep knowledge of the pine forest ecosystem. He sees the Mountain Pine Beetle as another remarkable – though unsurprising – shift in a complex ecosystem he has had a lifetime to understand.

Malm's narrative resonates with Rita Geisbrecht's in two important ways. First, his embodied knowledge of the forests exemplifies the value of an adjusted velocity gained by walking through the forests that Geisbrecht speaks about. Second, Malm suggests that humans are *incapable* of preventing or altering the ecosystem through the grand, intentional, controlled shifts that industry and government wish to enact. His statement that humans are actually "helpless" in the face of landscape and climate change was expressed cheerfully, as if to suggest that humans would be better off adjusting and adapting to climate and ecosystem, rather than attempting to forcefully change their bioregion to meet the needs of humans.

Howard Malm's narrative begins in the late 1930s, before he was born. Malm frames his knowledge of the region with his parents' movements in the region at the turn of the 20th century and their eventual homestead at Machete Lake in 1941. From 1974 to 2001 Malm lived in the Kootenay and the Peace River regions of the BC interior. Malm worked as a highways maintenance supervisor for most of his working years, and has also done a lot of hunting and fishing in the BC interior. Malm also worked on ranches and in logging as a young man, and has always lived in the mixed-pine forest ecologies of the Northern Interior of BC. In our interview, he is reluctant to speak about his individual knowledge, experience or opinion, preferring to describe changes in the plant and animal ecosystem and in his community and family.

Before Howard Malm and I begin to speak about the mountain pine beetle, we encounter and listen to another community member discuss her anger about the anomalous mountain pine beetle. This other community member ascribes the mountain pine beetle population to poor government management and tells us that the mountain pine beetle is an invasive species from Japan. This community member is accusatory and emotional, and her information is incorrect. Howard listens politely to this person's monologue, and it is only after he and I are alone at our table that he diplomatically says that while he agrees with the other community member that the mountain pine beetle is "a bad thing":

> the part that is open most to debate is whether, at the initial outset . . . it could have been controlled. Always will be debatable. I am more of the opinion that, probably not. Because for all of our advances, human advances, man still doesn't have control of nature.

In his polite deflection of the community member's xenophobic and incorrect statement, and his humble presentation of his own opinion, Malm expresses compassion for the heightened emotions the mountain pine beetle has aroused in many local people. This kindness is particularly relevant considering Malm's extensive knowledge of the bioregion. The kindness itself, followed by a humble and and correct observation about the mountain pine beetle, is indicative of a bioregional practice that respects all the humans in a region, free of snobbery but eager to develop a thoughtful perceptual ecology. Just as Val Plumwood, in "Shadow Places and the Politics of Dwelling," urges bioregionalism to "recognize the reality of multiple relationships to place," and to employ the insights of sustainability and an ethic of ecological care to "insist that [these multiple realtionships] be reshaped as meaningful and responsible" (144). That is, Malm's inclusion of logging narratives, his respect of uninformed but obviously passionate local residents, and his humility in the face of non-human populations, display the depth of social complexity necessary for bioregionalism to engage with issues of social justice, labour, and class.

I urge Malm to continue speaking about his community and the anomalous mountain pine beetle. He explains why humans cannot control the pine beetle. He stated that the "pine beetle has two natural enemies . . . cold weather . . . [and] the other one is fire." Malm ascribes the recent warmer winters to "climate change, didn't start yesterday, been that way for last 20 years now." He is also quick to point out the connection between fire prevention and mountain pine beetle territory, recalling how "from way back when, we have, in the interest of preserving timber . . . never allowed any wildfires to burn[6]." "To me," Malm says, fire prevention is probably a big contributing factor in the pine beetle's survival." Howard Malm concludes this explanation by repeating his belief that "some things, men are pretty helpless at." He says this in an upbeat tone, as a reassurance rather than a complaint. His bioregional attachment is to the home ecology, not to the mastery of the ecosystem. Humans have the power alter the pine forests enough that the mountain pine beetle have unprecedented available territory, yet are unable to impede the population growth of that same mountain pine beetle. Malm notes this irony gently, as if acknowledging the importance of humility for what I would term a sustainable bioregional attachment.

[6] Howard Malm's observation is corroborated by BC biologist Richard J. Cannings and zoologist Sydney G. Cannings. Further, they explain how early logging of large, fireproof trees, prevention of small "periodic ground fires," overgrazing that destroyed many of the local grasses that fueled ground fires, and the deliberate destruction of indigenous knowledge and fire management practices during the late 19th century and first half of the 20th century all contributed to the change in forest composition that has created an ideal landscape for large, hot, fast-moving forest fires. (Cannings and Cannings 230 - 31).

Even while he links timber protection to an increase in the pine beetle milieu and, ultimately, the increase in mountain pine beetle population and resulting dramatic changes to the forests, Malm states that he supports the forestry industry and the economic wealth it brings to towns in the BC interior. He told me that he believes that climate change is occurring, but he does not explicitly suggest a connection between the past century of resource extraction and the well-documented climate increases in BC. This is not, I believe, climate change denial. Malm, like most residents of the BC interior, rely on the resource extraction economy, and are loathe to publicly admit how resource extraction has brought about environmental damage. In a manner, this is a cultural failing in the BC interior. However, I refrain from moralistic judgment of workers like Malm: working class families in the region are both benefactors and, eventually, victims of environmental change. My project aims to gather the insight and knowledge of residents like Malm, hoping for a bioregional cultural model that includes their knowledge and experience. In his careful statements about the logging industry, Malm expresses his awareness of the politics, economics, and community sensibilities of his home bioregion.

Reflecting on the human communities, Malm says that the anomalous pine beetle population "has been devastating; in a province like BC, the pine was a big part of it, and so . . . it [the pine beetle population] has had a very negative effect on the industry, right down the line to the individuals." He told me "a lot of my family are in the logging industry, [and] for the whole of the interior, you

know, the allowable cut is being scaled back tremendously, because there is no wood. There is no wood." The individuals, then, are his friends and family members, those same people who work in the timber protection, harvesting and processing industries responsible for fire prevention, monocultural replanting, and C02 emission. Malm's thoughtful narrative shifts balance his understanding of the anthropogenic causes of the epidemic with compassion for the populations affected by the shifts. Malm's solution is to remain optimistic and open, to believe that there is "life after the beetle" for the forests, the animals, and the people. This attitude suggests the ongoing practice of reinhabitation of a changing bioregion, and should inform environmental and resource extraction policy in regions affected by climate change.

Howard Malm's belief in the future vitality of the forests comes from past changes he has witnessed in the forests. He says that as pines are cleared out "for farming, or whatever," they usually grow "back to poplar and willow." He explains that "pine can't reestablish itself without some means of those cones opening up and re-seeing and the only way that will happen, because we are far north it never gets warm enough, [is] fire. [That is] the only way those cones open up. So now you see a lot of those places are growing up to poplar." Malm shared these observations without sadness or rancour. He narrates a *shift in population:* the forest ecosystem composes and recomposes differently, but continues as his home place, the same forested bioregion. The varying tree species alter the ecosystem, allowing for new animal populations. He added that

these more open forests of poplar are easier for cattle to pass though, and for "the moose and the deer, well the moose is a grasseater and the deer is a browser," so these animals also thrive in an open, deciduous forest. He adds, ever aware of the needs of his community, that the easier passage through forests for animals is but "small consolation to the people who make a living in the logging industry."

But Howard Malm has seen a lot of changes in his 80 years in the BC interior. He learned that "You can't, you just can't go along worrying about spilt milk. It has happened and now we need to get on with what we are doing. And we'll do just fine. The Cariboo isn't going to fold up its tent. If it was, it would have [done so] quite a long time ago." By referring to "The Cariboo," Malm defines a cultural, historical, and ecological bioregion. This is a place of changing forests, diverse animal and insect populations, and human communities. Yet Malm allows that, regardless of the human cultural activity, a long view of the region allows for a concept of bio-regional health beyond panicked responses to temporary changes. He asks for a longer vision of time that allows for bioregional sustainability to extend far into the known past and far into the incomprehensible future.

For two of the interviewees, then, the Mountain Pine Beetle population has perceptible effects on the bioregion, demanding that people think in terms of longer, ecological, time, adapting Living bioregionally with climate change

demands a rethinking of time and life: the life of an ecosystem should be considered limitless, and the definitions of a living ecosystem should be flexible to the shifts of that ecosystem.

Two other interviewees, Sarah Thirsk and Barb Carlson, described their experiences with the Mountain Pine Beetle population more negatively. They found little potential for change or cultural shift in the altered landscape; they were unable to enter reciprocal relations with the landscape. They were overwhelmed with feelings of sadness, anger and fear, and this negative experience challenged their bioregional affiliations to the mountain pine beetle forests.

Barb Carlson and Sarah Thirsk: Discomfort and Fear as Challenges to the Bioregional Imagination

Barb Carlson identifies as an original back-to-the-lander, having come to rural BC from America in the early 1970s, and the forest around her home has contributed a constant setting to her adult life. Barb Carlson and her husband live about ten kilometers out of Lone Butte. Carlson invited me to come to her home to speak with her and to see the trees around her family's log house. Barb and Gary Carlson came to the Cariboo in 1979 and bought the property they live on in 1980. Barb remembers how they "cut a lot of trees to build the house. We cleared enough for the house because it was pretty heavily forested." The trees they cut from the property were too skinny to build the house with, so they "hired a guy and he went out and got the logs." They had "60 logs" and they

"paid $5 000. It was ridiculous." Carlson explains that $5 000 was very little money for all the logs needed to build their large log house. Barb Carlson and her husband Gary raised their two children on their ten acres. She tells me that "halfway back there is a pond and a hill," and recalled that then, when her children were young, "it was mostly pine on the front."

Barb first knew that the mountain pine beetle had come to their property around 2007:

> I just remember Gary came in one day and said, "We've been hit." And I said, '*Oh*. What do you do?' And you go out and look. And the pitch points were solid, hundreds, and it was like, *Oh*. We walked around and went, OK, OK, OK, we just watch and wait. We knew they were going to die. We were going to have to cut them down.

Carlson describes the change of the forest landscape as a sad time. She extends her description of loss to her family and to their acreage. They all, she said, lost something during the mountain pine beetle population "epidemic;" the challenge to her place-based knowledge was significant, and even thought Carlson and her family watched and waited, in the end they submitted to the loss and cut down the trees from around their home. In this narrative, Carlson's attachment to her home place is challenged as the family property loses vitality and ecological diversity. While her family is not displaced from their home,

Carlson's sense of security on the property, and the swathe of trees shading her home were damaged. This is a significant injury to a bioregional attachment.

At that time, Carlson recalls, the trees became tree corpses, and she spoke of "the hazard of having all the dead tree s around." Her husband cut some down, and they "had a guy cut some that were right here, right near the shed, and right near the [power and phone] wire[s], and he took some down by the shop, the first ones that died." Barb and Gary Carlson went away for a short holiday in the fall, and when they came back beetle-killed trees had fallen across their power lines, cutting off electricity to their house. It was "expensive getting it all fixed." As a result, they decided to remove all the dead and dying pines – which was all the pines – from the vicinity of their house, yard, and outbuildings. This left underbrush, some poplars, and grasses. Carlson remembers this as a time of ecological desolation, and still mourns the loss of the tall pines from around her house.

Barb and Gary Carlson's fear of trees falling on their home "in a storm, and in the winter" led them to cut down all the pines around their house. But they also became afraid of fire. The Carlsons' property is in a lightly populated rural area of mixed pine forests and small homesteads. Barb Carlson said that, in the spring of 2009, they realized that they had a lot of "dead needles" on their forest floor. They began "thinking of the fire danger" and hired someone to "cut back more trees, and so we got most of the dead ones." At the same time, Barb

wants to “save some for the woodpeckers,” birds she knows live in dry and dead wildlife trees. Later, when we were outside looking at the forest around her house, she points out a woodpecker to me. They haven’t left the property, and Barb Carlson is pleased; her joyful biophilia is evident as she talks about the woodpeckers. Carlson’s strong bioregional attachment to her home place has made the appearance of the anomalous mountain pine beetle terribly painful. As well, her remarkable biophilic attachment to this ecology of pines, birds, squirrels and beetles provides her the ability to adapt.

In our interview, Carlson continues to express concerned about the survival of the small mammals and birds living in the pine forests. Equally, Carlson is worried about log house she and her husband built thirty years ago and have been working on and living in since. Carlson was able, once, to see a macabre beauty in the pine beetle epidemic. She laughs lightly as she tells me how she and Gary were “driving in the fall, when it was first starting, and the needles were red, and the aspens were silver from the leaf miners . . . here were the red dead pines and the silver aspens, and we would joke about the fall colours . . . the red and the silver.” In this vision of the dark beauty, although she remains anxious about the changes in the forests, Carlson extends an ironic, yet lively, bioregional imagination to the dying trees. However, this ironic aestheticization of the anomalous mountain pine beetle falls short of perceptual ecology, and does not suggest sustainable bioregional reinhabitation. What I mean is that, while Carlson finds a way to appreciate the changing landscape,

she does not ask ecological questions about the forests. Nor does Carlson seek to adapt to the ecosystem beyond her home property further than an appreciation from a passing car. In comparison, Carlson's observations and questions from her log home are more thoughtful, informed by ecological immersion, and express a desire for continued inhabitation of the home bioregion.

Sarah Thirsk is a social worker who now lives in 100 Mile House. From 2003 to 2006, she lived with her husband and her daughter Lydia in the community at Anaheim Lake. She also lived in Williams Lake for 8 months. Thirsk wanted to talk to me about her first memories of seeing beetle kill trees and forest fires.

Sarah recalls that it was "remarkable" to see the changes in the forests between 2003 and 2006. She was in Tweedsmuir Provincial Park every summer for four years, and she remembers that:

> You could see where the beetle kill had seemed to [grow], the sea of red. You could see it growing each year, and I thought, 'I need to get a video camera because Lydia won't believe there were green trees out here.' And there was the whole sense of more forest fires, and there was the fear of more forest fires, and there *were* more. There was a forest fire the summer we were there, between Tatla and Anaheim, where we lived . . . we would always drive right past the burnt out area, and sometimes it

> was like, the burnt forest wasn't different from the pine beetle forest area. You almost couldn't tell. (Thirsk interview)

For Thirsk, then, the pine beetle's effect on the boreal forests has always been closely linked with fire. Thirsk's narrative of seeing the forests change "so fast," in a way that "we can't control" includes her perceived increase in forest fires and the rapid spread of the pine beetle. The "sense" of more forest fires came at the same time that Thirsk, her family, and her community lived in the boreal forests first affected by the pine beetle. For a time, Thirsk taught at the Anaheim Lake Indian Band school, and "looking out the window in the classroom, you see the red sort of growing . . . and one day there was fire too . . . it's that kind of changing landscape. It's sad." In this narrative, the red of the beetle kill forests and the red of fire elicits a common anxiety: too much change, too fast.

Fire and the mountain pine beetle are the most visible, and the fastest, ecological changes to occur regularly in the pine forests of BC. Their association is a commonly held belief in the Cariboo Chilcotin. Both fire and mountain pine beetle demand a rapid response from humans. A bioregional attachment, and the practice of informed perceptual ecology, would make the response more likely to produce sustainable culture, and narratives about both events would be specific to the location, rather than generalized.

Thirsk's narrative of the forest fires and the mountain pine beetle is site-specific, but is also laden with sorrow, anxiety, and a generalized sense that the events are wrong, and should not occur, ie., that they are *not natural*. I ask Thirsk how she understands the pine beetle-forest fire association, and where she learned of it. Thirsk says that she remembers "being more aware of the risk of forest fires" since the pine beetle epidemic. She states that she is not sure where she learned that there is a connection between mountain pine beetles and an increase in forest fires, and admits it is taken as a kind of "common sense" understanding of the beetle kill forests. Thirsk says that she has "heard that a healthy tree burns better, crowns better than a dead tree . . . the sap in it . . . so you know, it's probably psychological . . . so, yeah, in my head I made the connection [between beetle kill and fire], whether it is scientific or not." During our conversation, Thirsk comes to wonder at the fires' etiology. She has not moved away from the Cariboo-Chilcotin, even after witnessing massive fires and the movement of the anomalous mountain pine beetle. The questions about the association between fires and the mountain pine beetle are an example of the practice of perceptual ecology, and can contribute to a bioregional imagination of living with the changing pine forests.

Through questions and narrative, Thirsk moves with her discomfort, alongside the pine forests, rather than away from the forests. Thirsk remains committed to learning and living in place. I think that, in times of radically altered landscapes, this is an act of courage. Carlson remains in the house she

built with her husband, and she continues to monitor the woodpeckers, the pines, and the changing composition of her home place. While the anomalous mountain pine beetle's acute effect on Thirsk and Carlson's bioregional attachment has been stressful, their ability to continue learning about the forests, and to continue observing ecological change, bodes well for a continuing, and perhaps stronger bioregional attachment. It is fortunate for both Thirsk and Carlson that the fires and the falling trees did not entirely displace them from their home bioregion.

Horse Lake Community Farm Co-Operative: "We Try Not to Hurt Anything That's Growing" and a Revisable Ethic of Bioregional Care

The Horse Lake Community Farm Co-Operative (HLCF) farms on 133 acres of land on Horse Lake, 20 kilometres southeast of 100 Mile House. Non-farming community members can buy a share in the farm and contribute to local food security, a growing concern in the Cariboo-Chilcotin. As a child, I visited the farm, and our family traded livestock with some of the farmers. For the interviews in 2010, I drove out to the farm to meet with Rob Diether, Rod Hennecker, Karen Greenwood, and Greg Robinson, four of the farmers. Rob Diether, Rod Hennecker, Greg Robinson and Karen Greenwood have been in the Cariboo Chilcotin since the early 1970s, when they came to BC as back-to-the-landers. They have been "farmers, gardeners, cowboys, ranchers, builders, greenhouse experts . . . living off the land," Diether says. Some of the farmers raised children

on the land, and all have been involved in the local agriculture and ranching economy.

As agricultural workers intentionally creating an ecological counter-culture community, this group of interviewees has long been suspicious of official (ie, outsider) interpretations of bioregional change. Their narratives reflect a determination to remain farming on the land, and to adapt their bioregional attachment and perceptual ecological awareness to the changes brought by climate change and the mountain pine beetle. The farmers are not particularly disturbed by the mountain pine beetle's population growth; at least, they do not rate it as more troublesome than other ecological shifts. Overall, the group is more interested in how best to respond, as a working community, to long term climate change and the inevitable effects to their home bioregion.

I asked Diether and Robinson when they first observed the mountain pine beetle epidemic. Neither farmer could recall a specific year during which they first learned about the pine beetle. Rob Diether says that "it was a gradual process . . . I guess we heard about it in the Chilcotin, [in] Tweedsmuir park. That's where the epidemic, if that's what you want to call it, where it first started." Greg Robinson remembers how, at the time, some forestry workers "were hauling logs to town," and there was a call-in program "on the radio one time . . . somebody said, 'Aren't the bugs going to jump off the trucks and start spreading everywhere?'" Rod Hennecker later recalls the same concern, that

trucks and airplanes carrying beetle kill logs from the Chilcotin and Bella Coola region through the central Cariboo would disseminate the beetles. Rod and Greg agreed that, at the time, the prospect of mountain pine beetles in the Cariboo did not worry most people very much. A large-scale epidemic was not anticipated. Greg said, "I don't think anybody really thought it was going to spread so far and so wide so quickly after that." In fact, no humans expected the scale and the speed of the anomalous mountain pine beetle.

Diether, Hennecker, Greenwood and Robinson have been aware of the force of industrial damage to local ecosystems for longer than the mountain pine beetle has been a population of concern; their back-to-the-land farming began as a bioregional reinhabitation and a rejection of what they perceive as industrial, urban, natural sciences. Karen Greenwood talked about Rachel Carson's *Silent Spring*, mourning that Carson's warnings against application of chemical insecticides – or, in Carson's words *biocides* – seem to have been ignored by the Ministry of Forests, Land, and Natural Resource Operations. Greenwood refers to a recent event in BC, the application of Monosodium Methanearsonate (MSMA) to living pine trees. The best estimate, based on reported usage of MSMA for bark beetle control between 1995 and 2004 is that "approximately 5080 kg of MSMA was applied to almost 500 000 trees" (1494 Elliott et al.). In 2007, a study found toxic levels of MSMA in "5 species of woodpecker" in forests in the Kootenay region of British Columbia (1494 Elliott et al.). The study showed that, although the pesticide had been applied under

the park of coniferous trees in BC for approximately 20 years, no studies had been made of the effects of MSMA on insectivorous birds. That is, nobody had asked the "good question": what happens if the birds eat the poisoned beetles? To Karen Greenwood, the notion that an organism could be systematically poisoned as if it were disconnected from its bioregion is illogical. Her bioregional knowledge informs her understanding of the ecosystem and prompts questions about populations.

Diether and Greenwood both speculate about the effects of climate change. Rob said that, while the MPB's anomalous population cycle took the farm by surprise:

> . . . we've been aware of the climate change for a long time, and you know, I certainly firmly believe that the pine beetle is connected with the change in our climate, warmer winters. I don't think there's any doubt about that and you know, it's been a number of years since we've been thinking about the climate change effect on the forests. (Rob Diether interview)

Greenwood and Diether recall hearing a climate change botanist speak in Williams Lake "six or seven years ago." The botanist advised local people to "trust their instincts." Rod said, "You know, if you see something that you really believe is the result of climate change, you are probably right. I think that is good advice, and I certainly go by that . . . we certainly aren't scientists either, but I

don't think you have to be a scientist to understand, at least in broad strokes, what is going on." Greg added that, during the first years of the pine beetle epidemic, "a lot of ranchers were saying it was affecting their water for cattle . . . the turpentine coming from needles causes a miscarriage in cattle. But now there are no more needles. They're gone." Combining the received knowledge of a climate change scientist with attention to details in their own bioregions, Diether and Greenwood are able perceive the effects of global climate change on a local scale.

The farmers perceived climate change in their farm's watershed. Diether, Greenwood, Robinson and Hennecker each commented on the changes in the creek that runs through their farm and meets Horse Lake. Diether said that the farm has "been in a drought situation, anyway, [so] there hasn't been much runoff, and what comes, comes quickly." Greenwood and Robinson describe how the water would rush down the creek suddenly, eroding the creek banks. Rod explains that, "since 2003, the first time the creek actually stopped running during the summertime . . . it's stopped every year since." Prior to 2003, while the creek was higher in the spring, and froze in the winter, it ran all year. The farmers ascribe the changes in hydrology to the lower snow pack, but also think that the pines that once stood along the creek are now "not absorbing . . . much water, so [the water] runs off, and it runs off quickly. And there isn't the canopy to protect the ground, so the sun just comes down," drying water quickly. Greg Robinson adds that "the water tables have disappeared, the lake, earlier than

before." The changes in snow pack, pines, and creek banks could be a result of climate change, but also of logging upstream, of the farm, from mountain pine beetle effects on the forests, or of other, undiscovered factors. More importantly, each farmer contributed awareness of the changes, and together they maintain a keen watch over the watershed.

The knowledge the Horse Lake Co-Op farmers have of their home bioregion is grounded in experience over time, and their dedication to sustainable farming alongside the ecosystem reflects the practice of perceptual ecology. Their bioregional knowledge has come over decades of manual work on the land, and while the farmers express respect for scientific knowledge, they rely on their quotidian observations of the ecosystem for decisions. Sale, in *Dwellers in the Land: The Bioregional Vision*, stresses the value of empirical bioregional knowledge. Sale thinks that contemporary science moves too quickly, without adequate consultation with bioregional communities. While more recent bioregional writing proposes co-operation between academic science and "place-based bioregional knowledge," the anomalous mountain pine beetle milieu has been manipulated, logged, and reseeded with minimal input of "place-based bioregional knowledge" (Goldstein 158- 164). Sale might be describing the Horse Lake Co-Op farmers when he writes that:

> . . . people are fairly savvy about the places they live in if you give them a little time to think about it. Ask them about their watersheds, whether

> they set out tomatoes on May Day, and if they are used to seeing coyotes or German roaches or deer by the road, and you will get a pretty good idea of their regional understanding. . . . people tend to comprehend – even though they are seldom taught about – the places they inhabit. (165)

The Horse Lake Co-Op farmers have an intimate awareness of changes in the creek, the trees, the understorey, and the animals and birds that lived on the farm property. I asked them if they thought of themselves as forest managers, as active participants in their changing landscape. Karen Greenwood answers that, "Yes, as the trees die," the farmers collect them. They use the dead wood for burning and for building farm outbuildings. Currently they are building a small cabin out of beetle killed timber. The farmers were eager to differentiate themselves from official forestry management and the science of silviculture; their forest "management" consists only of responding, with minimal ecological effect, to bioregional change. They reject the search for a formula for the most sustainable, or the highest yield management of forests.

Rob Diether told me a story about their co-operation with provincial government silviculturists in the 1980s. At that time, he and some other organic farmers were raising sheep. In an arrangement with foresters:

> We used to graze sheep up on the clearcuts. It was part of this forestry program where they were controlling fireweed using sheep as a method

> to do this. And so we had our sheep up on the clearcuts around Horsefly [Lake] and up around Bosk Lake. That was in the mid 80s, certainly back then, we'd be up in the clearcuts with our sheep and you'd have quite a bit of time to think about things. And what was happening in the forests, and in the clearcuts we were in, these former forests. And it certainly occurred to me then – what was going to happen to these plantations, 25 years from when they were planted? What our climate was going to be like – would all this replanting all go for naught, just because of the climate change taking place, problems that no one anticipated? So we'd been thinking about this a lot, you know. And I think for a long time, all of us, have been concerned about the forests, what was happening. (Rob Diether Interview)

I asked Diether why there was a need to remove *Epilobium angustifoliu*m – fireweed – an indigenous plant that thrives in clearcuts and burned forests. He said that the "plantations" [Diether's bias against the forestry industry apparent in this word] they were grazing their sheep in "were replanted in spruce, and so what they [foresters] were finding was that the fireweed and the alder was coming up so quickly it was smothering these little spruce trees." Diether said that, for the forestry industry, this was "a crisis, you know," and the foresters asked, "What the heck are we going to do?" Rob and the other farmers "thought they were spraying with herbicides to control them," and so, hoping to reduce damage to the ecosystem, "became part of this trial method of controlling the

brush without using herbicide." The forestry managers, from industry, government and, as one farmer suggested, herbicide companies and universities, were "groping in the dark," making decisions based on a desire for short term benefits and informed by distant science uninformed by the complexity of the local ecology.

When I ask the Horse Lake Co-Op farmers whether they see themselves as stewards – or as managers – of the watershed and forest ecosystems on their land, the answer:

> Greg – "Well, we sorta try not to hurt anything that's growing, that's green."
>
> Lorraine – "We've got a healthy forest."
>
> Rod – "We don't take down trees we don't have to take down. But this is a co-op farm, and we just try to farm as best we could."
>
> Rob – "Maybe sometime we might want to reforest, plant some trees."
>
> (Horse Lake Co-Op, interview)

The odd thing is that attention to a home bioregion, whether that ecosystem is a small watershed, a backyard forest, a single overgrown cut-block, or a well-known hunting ground, opens up understanding of global climate change. Or, as Thomashow writes: " . . . the more deeply I explore my island perch, the wider my gaze becomes" (111). This is a "barefoot global change

science," open to the observations and recollections of artists, farmers, teachers, and hunters (Thomashow 134-136). This living knowledge of climate change can't be produced by a single person; rather, Thomashow believes (and as a result of what I learned from these interviews, I agree) that a "grassroots, hands-on, participatory, place-based learning . . .about global climate change" is best "achieved collectively," inclusive of "multigenerational and multicultural" bioregional citizens (135). Thomashow recommends the inclusion of scientific information and technological expertise in this learning project. I agree that, for example, that combining Karen Greenwood's understanding of her pine forest bioregion with Elliott et al.'s study of insectivorous birds produces a powerful, credible, bioregional narrative about the role of climate change and silviculture in the mountain pine beetle forests. The data needs Greenwood's narrative of bioregional attachment, and Greenwood's heartfelt narrative is empowered by the addition of academic science "proving" her perceptual ecology.

Thirsk and Carlson's narratives provide what Bruce Evan Goldstein calls "place-based bioregional knowledge" (Goldstein 162). They do not extend their local observations to implications of climate change. For Carlson, the anomalous mountain pine beetle brings a personal, familial, heartache, and fears of vulnerability for her house and property. For Thirsk, the terror of fire – made more acute by her role as schoolteacher in a remote setting – associated with the mountain pine beetle overwhelms ecological implications of the forest change. In both cases, the narratives provide a personal context for what is often

represented as a vast, impersonal landscape change. Much as the billions of beetles, and millions of hectares of affected trees, are impressive, at a personal scale, the mountain pine beetle changes the relations between bioregional inhabitants and their immediate sensory perceptions. That is, while Thirsk and Carlson's narratives might not present the community observations of climate change that the Horse lake Co-Op farmers' collective interview does, the private stories of fear and anguish have a place in building a bioregional cultural response to climate change. The sensory perceptions of ecology are not always idyllic.

Howard Malm expresses the humility of bioregional awareness aptly, saying that "some things, humans are pretty helpless at" [sic]. Malm's story is rich with years of accumulated bioregional place-based knowledge, and he matches his wisdom with a conscientious humility**.** His cautious comments about logging elide the magnitude of anthropogenic change to the bioregion, but Malm's compassion for the workers and families who depend on logging introduces class-consciousness to bioregionalism. There is no precious exclusivity about Malm's sense of the pine forests as home place. Rather, he lives in a working forest that has sustained the economic, individual, and communal lives of his friends and family for decades. This recognition of the relative vulnerability and political powerlessness of most people who work in resource extraction is missing from much Ecocritical and bioregional writing, and I see Malm's contribution as telling. Future bioregionalism must include class, mobility, and

social justice analysis. Rita Geisbrecht's biophilic attachment for her home bioregion extends to the beetle-kill forests. She encourages others to leave the passive observation of vehicle tourism and to engage in perceptual ecology by walking through and learning about the changing forests through their own empirical knowledge. Geisbrecht's bioregional practice is what Thomashow describes as "an approach that relies on . . . observations of what is close at hand" (111). Together, Malm and Geisbrecht's narratives show the value of experiential knowledge and determined bioregional attachment.

CHAPTER THREE

"A TERRAIN OF CONSCIOUSNESS:" ECO ART AND ECOVENTIONS IN THE MOUNTAIN PINE BEETLE FORESTS OF THE NORTHERN INTERIOR OF BC

The mountain pine beetle brings uncontrollable destruction to the settler cultural narrative of increasing wealth and continued resource extraction. Once the mountain pine beetle has arrived, the pine forests can no longer thrive as gardens of resource wealth for settler culture. It is only with great imagination, grounded in bioregional particulars, that settler culture might understand the mountain pine beetle as part of a complex, ongoing, changing bioregional home to multiple organisms. Bioregional art about the pine forests envisions new relations between humans, forests, and forest organisms. Bioregional art interrupts the settler culture discourse of resource extraction. It resists the narcissistic hero narratives of most settler literature, and creates hope for peaceful, sustainable relations for human and non-human community in the BC northern interior.

This creativity, necessary for a challenge to the reductionist models of static systems that settler culture has engendered, is a central practice in bioregionalism. Bioregionalism originates in creative, community-building literature. Bioregional publications in the 1970s and 80s were more like punk rock zines than academic journals. They were often photocopied and hand illustrated, circulated through gatherings and community mailing lists. They included first person narratives, feminist songs, polemical manifestos, maps,

recipes, and instructions for do-it-yourself homestead projects. These creative works were meant to encourage others to build a sense of place, to rely on a community of humans outside the capitalist trade networks and to take on a bioregional perspective. The creation of bioregional culture, therefore, has always demanded imagination, creation, and audience. In their 1978 essay "Reinhabiting California," Peter Berg and Raymond F. Dasmann write that "reinhabitation involves developing a bioregional identity" (82). While reinhabitation of a damaged bioregion requires physical labour and political will, the ability to adapt to ecological change and to create sustainable culture also requires some visionary enthusiasm. Thus, when Berg and Dasmann write that the bioregion is a "geographical terrain and a terrain of consciousness," they refer to the terrains as coterminous, mutually influential spaces in which creative regeneration of culture, sustainability, and thinking would occur (82) Bioregional art about the BC pine forests envisions reconfigured human and non-human relations, reinhabiting a culture that suffers from exploitative economic and resource extraction practice.

For bioregional art about the pine forests of BC and the mountain pine beetle to effectively interrupt settler culture resource extraction narratives, it must acknowledge the primacy of logging as economic and social model, and must provoke a cultural move to other alternative models. This is an act of great bioregional imagination. In this bioregional art, the forests, the beetles, and the forest organisms must feature as living agents, and value is placed on the

embodied experience of the forested bioregion. This attachment, based on experience and a commitment to sustainability, contributes to an astute bioregional notion of the *sense of place.* In *Xerophilia*, nature writer and ecocritic Tom Lynch reads an archive of bioregional poetry and fiction about the American Southwestern desert. In reference to the understanding of bioregional literature as that which deepens attachment to a cultural and ecological place, Lynch worries that the phrase " 'a sense of place' . . . has become so common as to have become a cliché . . . that. . . has lost its meaning and potency" (178). Further, the notion of "sense" in the phrase "seems to refer to some mysterious and semi-mystical aura" when, in a bioregional system of sustainable literature, it should have more "to do with our everyday embodied sensations in tangible physical environments" (178). For Lynch, "sense of place" is "so fundamental to ecocriticism that it is worth salvaging;" he does so by seeking literature calibrated by "multiple forms of sensing" about the American Southwest (178). Similarly, I seek bioregional art and literature about the BC northern interior forests in order to imagine relations in a sustainable culture.

The anomalous mountain pine beetle presents residents with overwhelming landscape change. These physical landscape changes challenge attachments to the bioregion and disrupt settler culture knowledge about the pine forests. Therefore, bioregional art that intervenes in troublesome settler culture notions of the forests, responds to the mountain pine beetle, and allows humans to integrate the mountain pine beetle forests with their bioregion is

necessarily about what Lynch calls “embodied sensations.” This art brings forth connections between the changing human culture and the changing forest bioregion. Peter Berg’s call for bioregional art and literature to have a “planetarian feel” and ongoing awareness of all “parts of the biosphere” is a reminder that bioregional art is neither entirely cultural nor entirely natural, but allows for human culture to change in concert with non-human organisms and ecosystems (97). It is this effort towards human and ecological co-operation, towards efforts, particularly from humans, towards sustainable living, that I locate in a series of examples of bioregional art and literature about the mountain pine beetle and pine forests of BC.

This bioregional art about the mountain pine beetle and pine forests is not a reconstruction of relations between creative humans and passive non-human organisms. Nor do I seek a mode of aesthetic, and ultimately passive, appreciation of the potential beauty in the mountain pine beetle population. Rather, I analyse the art by asking how the art – or whether the art – brings the human viewer, reader, or participant into an ecological mode of action and thought, and requires self-examination. In literary analysis, I question the degree to which the poetry makes manifest a complex, ethically demanding, relationship between the human and the non-human, beyond aesthetic appreciation. Further, I read the poetry for patterns of instability of the settler culture position in a changing ecology. Narrator subjectivity is important in my

study, and I attend to poetic representation of the assumed (or questioned) stability of the colonial narrator as knower of the non-human world.

Tom Lynch expands on this idea of human self-reflection when he writes that while bioregional art and literature should "manifest the interplay between organisms and their environment . . . organism should not be taken to mean only those creatures in the eternal natural world under examination – although it certainly includes such creatures – but it should also include the writer him or herself" (180). Like Boetzkes, Lynch believes that environmental art and literature allows for reflective exchange between human and non-human, between art and viewer, between artist and artwork and natural world. The changes wrought by the process of producing and experiencing this art and literature intervene in reductionist settler culture notions of human/nature dualities in the pine forests, and allow for creative, newly hopeful relations.

In Chapter Two, I show that humans are variously receptive or resistant to the landscape changes the mountain pine beetle brings to the interior pine forests. We know that climate change manifests, with increasing frequency, in intense natural phenomena: overwhelming heat, startling storms, the shivering cold, stunned silence, and herded humans. Lynch's admonition, that bioregional literature should "plunge" a reader "into the milieu of nature"is reasonable in terms of demanding that bioregional literature attend to a particular ecosystem (183). However, as humans meet with the remarkable speed of vast landscape

change in the BC pine forests, this plunge into sensory awareness produces feelings of shock, fear, and confusion. Further, the ecological changes can bring economic instability and a sense of, or real experience of displacement from a home bioregion. In developing a sense of place in relation to the anomalous mountain pine beetle in the BC northern interior, the art and literature that I write about in this chapter does more than simply represent the change in the forests. This bioregional art and literature grapples with the sense of place, the attachment to an ecosystem, the implication that settler culture is at least partly responsible for these changes, and the desires for sustainable community living in these forests.

Another way to understand bioregional art and literature that intervenes in settler culture and extends creative relations between humans and non-humans in the mountain pine beetle-affected forests is as *ecovention*. An ecovention is a form of ecological art. Ecological art, or *eco-art* is most simply described by art theorist Amanda Boetzkes as that which presents an "indexical connection" to an ecosystem by way of showing or using the materials of that ecosystem (100). This premise, that eco-art is made of and from and the particulars of an ecosystem, is parallel to literary bioregionalism's call for attention to site-specific ecological detail. This is especially true for bioregional eco-art made from the materials – wood, ash, branches, and charcoal in the case of the mountain pine beetle milieu – sourced from this ecosystem. Beyond this use and representation of bioregional forest materials, *ecovention* art, according

to art theorist Sue Spaid, is that which aims to reinhabit, restore, or stabilize "local environments" and to provoke the imaginations of local inhabitants, thus intervening in eco-cultural practice (qtd. in Kagan 271-275). Spaid's notion of the *ecovention* combines "ecology + invention" and is carried out with local communities, with "some intended ecological function" (qtd. in Kagan 334). Further, ecoventions address some or all of these five dimensions: activism to ecological issues and problems, valuing and living within damaged or altered ecosystems, biodiversity and species depletion, urban infrastructure and environmental justice, or reclamation aesthetics (qtd. in Kagan 335). Ecoventions comment on and draw attention to ongoing or historical ecoharms, and often the artwork itself is composed of or by the ecological materials of the site of ecoharm. For example, "The Nine Mile Greenway Project" (1997-2000) in Pittsburgh, conducted by Tim Collins, Reiko Got, Bob Bingham and John Stephan consulted with community members for three years before spraying a mixture of nutrients and grass seeds on a pile of slag (a chemically dense by-prodcut of steel production) (Kagan 338-339). The newly greened slag pile ultimately provided a bicycle path and carried storm water. "The Nine Mile Greenway Project" brought attention to the problem of slag piles, consulted with the human community, reclaimed a site of ecoharm, and produced a sustainable and ecologically generative landform. Like the mountain pine beetle affected forests – and even more like clearcuts – the slag sites generated anxiety and fear for humans, and can be culturally reinhabited a site of growth and sustainability.

Bioregional art, requiring an alert sense of place, attachment to local ecology, and a desire to reinhabit ecosystems sustainability, is akin to Spaid's notion of the ecovention. Unlike Spaid's notion of the ecovention, bioregional art should be focused on site specific events or agents that are geographically close to the presentation of the artwork. Bioregional art or literature that does not aim to intervene in ecological practice, to reinhabit a damaged ecosystem, or to redress ecoharms is eco-art, but is not necessarily an ecovention. Throughout this chapter, I refer to eco-art and to ecoventions and bioregional art. Ecoventions are works which specifically aim to question and reconfigure eco-cultural relations. Eco-art is site-specific to the mountain pine beetle forests, yet may not address eco-cultural practice directly. Eco-art may still intervene in settler culture eco-cultural relations by enriching the bioregional imagination, but might not express of the need for changes in settler culture eco-cultural practice. Both eco-art and ecoventions contribute to the development of a bioregional culture, and to the imagined models of culturally and ecologically sustainable settler culture.

Bioregional artistic responses to the anomalous mountain pine beetle began in the early 2000s and continue through to the 2010s, and these works range from aesthetic representation to politicized ecovention. I choose to write about two poetic works about the anomalous mountain pine beetle bioregion: *Decompositions* by Ken Belford and *Lousy Explorers* by Laisha Rosnau. These works directly address the positions of the humans living in the bioregion in

relation to the shifting organic populations within the forests, including the mountain pine beetle populations. I read these works for attention to particular species and bioregional particulars. I also ask to what degree these works engage a bioregional imagination in their depiction, reference to, and imagination of a site-specific ecological ethic.

In BC poet Ken Belford's 2010 book of poetry *Decompositions*, the pine beetle is a minor player in a bioregion recovering from settler culture, and the ecosystem thrives as a resilient, resistant bioregion. Belford's poems move across a changing, landscape, tracing bioregional connections between marginal range land, altered pine forests, and the DNA of the narrator's eco-altered body. *Decompositions* intervenes in dualistic divides between humans and non-humans in the pine forest and grassland ecosystem of the Nass Valley in the BC interior, grapples with settler responsibility for ecological restoration, and offers a vision of bioregional relations. In BC poet Laisha Rosnau's 2009 book *Lousy Explorers,* the sounds and colours of the thriving mountain pine beetle mirror the narrator's procreation and pregnancy. This unusual matching of human and insect fertility creates a bioregional poetic of insect and human life. While *Lousy Explorers* refrains from commenting on political and ecological responsibility, and is not concerned with sustainable eco-cultures, the poems about the mountain pine beetle and the pine forests suggest a bioregional intimacy that contributes to deeper bioregional attachment. That is, *Lousy Explorers* is poetic

eco-art, and while it may not be an ecovention, it contributes to the literary archive about the mountain pine beetle.

Further, I analyze the bioregional particulars and the generation of a bioregional ethic in three works of visual art. I selected these particular works because, like the poetry I analyze, this visual art engages the subject (and the viewer) with uncomfortable proximity to the anomalous mountain pine beetle and the anthropogenic changes brought to lodgepole pine forests. I investigate these works for their generation of a bioregional ethic.

Arlene Wasylynhcuk's 2010 exhibit *Saltus Illuminati* represents branchless, needleless pines, living and dying with pine beetle occupation, and presents an eco-art space in which people can meet and consider the sense of place that is unique to the mountain pine beetle affected forest. *Saltus Illuminati* does not specifically intervene in settler culture, nor does it claim to model sustainable relations. However, the unsettling nature of the installation, in which representations of beetle-kill trees glow from within, brings viewers close to an imagined beauty in forests that are otherwise deemed ugly, dead, and not worthy of human protection or care. This aesthetic provocation is made lightly, without politicized statement.

A more highly politicized artwork, in both intent and reception, is British artist Chris Drury's 2011 outdoor installation *Carbon Sink*. This ecovention was intended to encourage political discussion about the Mountain Pine Beetle,

carbon resource culture, mining, and timber resources, resulted in political controversy and the early removal of the installation. *Carbon Sink*'s accessibility to viewers allowed for personal, multisensory interaction with the effects of climate change, the mountain pine beetle and coal mining. Drury and Wasynlynchuk's installations contribute to an archive of bioregional cultural knowledge about the mountain pine beetle and the pine forests, and while they express differing degrees of interest in changing settler eco-culture, they share an identity as site specific art about climate change and the mountain pine beetle.

Neither overtly political nor gently aesthetically pleasing, Peter von Tiesenhausen's 2005 exhibit *Requiem* in the Prince George, BC *Two Rivers Gallery*, presents the anomalous mountain pine beetle affected forests as sites of mourning, anxiety, and, eventually rebirth. The exhibit combines drawings on pulp sheets, paintings and burned images on plywood and old wooden flooring, and an entire charred pine tree. Viewers move through environments that alternately mourn and celebrate the changing pine forests. Like Belford and Rosnau's poetry, Wasylnchuk's exhibit and Drury's installation, Tiesenhausen's exhibit inhabits the multi-sensory milieu of the climate change pine forest. It is both ecovention and eco-art, and pulls viewers into the milieu of the changing pine forests. It is a discomforting artwork, and it is this strength to discomfort human/non-human relations that makes bioregional art an effective force for bioregional imagination of sustainably cultural models.

Poetry and Sense of Place in the Lodgepole Pine Forests: Ken Belford's *Decompositions* and Laisha Rosnau's *Lousy Explorers*

Ken Belford's *Decompositions* resonates with bioregional themes of ecological regeneration, building a human and interspecies bioregional community, reinhabitation, exploring how human consciousness is affected by living with a biotic community, and learning to perceive the contours of a home place irrespective of geo-political boundaries. *Decompositions* creates a "terrain of consciousness" and is rooted in the surges and movements of a changing bioregional community (Berg and Dasmann 82). The poems in are set in the outskirts of small northern interior towns, in the grasslands and forests in the Nass River Valley. The Nass River, a bioregion that has been affected by the mountain pine beetle, mostly runs through the Sub-Boreal Spruce biogeoclimatic zone, and in higher elevations through the colder, drier Engelmann-Spruce Subalpine Fir zone. These zones are important moose habitat, and are home to spruce, fir, pines, and some stands of deciduous trembling aspen, (112- 115 Fenger *et al*.). Grasslands are in the drier ESSF zones are home to pine grass and kinnikinick (Jones and Annas). The bioregional particulars of the Nass Valley feature in the poems in *Decompositions* as indexical markers between a changing ecosystem and a narrator struggling with his role in settler culture.

These poems promote bioregional sustainability in that they poems celebrate wild grassland resilience, and when addressing diverse life forms, favour the success of the indigenous plants and the unlogged forests. That is,

they trace the movement of bioregional self-restoration, and place the human narrator at a margin, watching the changing ecosystem from his compromised settler culture position. *Decompositions* is composed of 91 unnamed poems (in this chapter I will refer to each poem by number, and cite by page). The first three poems introduce the narrator as "a man" whose "pen name was Ken," who was "unsuccessful at love and work," and who has various unsatisfactory explanations for the order of events in his life (Belford 6 -7). The litany of his "blunders," romantic failures and regrets are introduced without blame, and the poet-speaker only suggests that "[e]verything varies from disturbance to disturbance" and there can be no reckoning or accounting for the vagaries of love, human relations, and wealth (Belford 7 -8). Herein the narrator's personal ecology is as changeable as the forest and grassland ecosystems, and the narrator is thus more closely attached to the coterminous changes in his bioregion. By the fourth poem, Belford's narrator lives in a community with those who have rejected "[s]ystems of class," whose "families were failures" and thus "took refuge in the mountains" (poem 4, lines 19-22). The book eventually includes grasses, trees, and humans in this liminal community recovering from settler culture. The community overlooks the Nass Valley, and it is from this reinhabitation of an altered bioregion, with an understanding of the unpredictability inherent in human and non-human endeavours, that the narrator begins to speculate on the nature of ecological change.

Much like the residents of the mountain pine beetle forests I interviewed in Chapter Two, Belford's narrator worries about the dangers inherent in ecological and cultural change. In the fifth poem, the narrator writes that: "Pathogens jump when ecosystems change / but the population is naïve / when it enters an area of infection" (lines 1-4, Belford 9). "Pathogen" suggests disease. The narrator already recognizes the state of flux and change as ecological conditions, and later reveals that the pathogenic attack comes from *outside* the bioregion, from resource extraction – logging. The narrator is allied with the bioregion, and from this perspective, resource extraction is a pathogen that "jump[s]" when ecosystems are vulnerable and "naïve' (Belford 9). The forests around the Nass River could be particularly vulnerable to increased resource extraction during certain seral stages. After a fire or after a mountain pine beetle population spread, arguments are often made that any remaining standing trees should be salvaged for timber, and the forests should be quickly cleared and replanted, before the ensuing seral stage, one in which understory thrives, can begin. This forest, characterized as "naïve" by the narrator, is indeed more vulnerable to the pathogenic spread of resource extractive discourse.

The discourse of resource extraction depends on the schematization of organisms in the forest ecosystem as separate, non-dependent organisms. The very antithesis of bioregionalism, this discourse is interrupted by Belford's narrator calling resource extraction a violent pathogen, and is further denied when the narrator seeks connections between humans, trees, and understory.

Belford's poems, and bioregional art and literature broadly, celebrates sustainability of diversity of life forms; the pathogen to such an eco-culture is reductionist resource extraction. In *Animal Capital: Rendering Life in Biopolitical Times,* Nicole Shukin writes that resource extraction is the most truly pathogenic ecological activity, since it consistently destroys diverse forms of life. Indeed, once material is coded as "resource," it can only have value if extracted from its ecology; the discourse of resource extraction is the dismemberment of an bioregion. In the discourse of resource extraction, natural resources exist in passivity, and only extraction can bring the resource from the stage of waiting to the moment of successful instrumentalization. Thus, while Shukin and Belford understand resource extraction as a pathogen of bioregionally harmful pathogen, for industrial resource extraction itself, within industrial discourse "the pathological is but another name for nature as an immanent materiality that proves to be far from passive" (Shukin 85). That is, to industrial forces, the resource that disallows extraction is a diseased, deviant natural material. The mountain pine beetle, a forest fire, or even the natural increase of indigenous understory (such as fireweed, in Chapter Two) are pathogenic incursions to the industrial resource forest; from a bioregional perspective, change endemic to a bioregion cannot be pathogenic. In this way, Belford's poetry reclaims ecological change as a vital movement within a dynamic bioregion.

Belford's narrator observes the follies of settler resource extraction culture. Belford was a wilderness guide for close to thirty years, and while he and

his family lived in a bioregional community with the land, he was still in commerce with the "outside" interests of tourism. At times, the poems of *Decompositions* worry over the narrator's possible collusion with outside forces. How does the narrator truly *know* that he belongs? Does his existence every truly become one with his bioregion? The narrator admits that he moves in this ecosystem from an ontological – and biological – outside:

> I'm integrating in through recombinations
>
> as a naked piece of DNA in the environment,
>
> not passed vertically
>
> from generation to generation,
>
> but by means of the conjugation of plasmids
>
> into the occupation of the new. (poem 5, lines 15 – 20)

At this juncture, the narrator imagines that, although his existence in the Nass Valley does not follow that of generations of ancestors, he could move sideways into belonging, eschewing the class systems, colonial oppression and colonial industry that belong to (his) settler culture. Tom Lynch's notion that the interplay in bioregional literature should "include the writer him or herself" finds biological performance in Belford's vision of himself sharing DNA – transmuting himself – with his home place. Might Belford, then, like the others who left their families for the wilderness, live sustainably, adapting to the ecosystems rather

than overtaking them? Even this wish, however, is compromised: “occupation of the new” betrays the potential violence of reinhabitation, as if re-territorializing colonial land in a kinder, slower way could undo centuries of occupation (line 20, Belford 9).

The question remains whether settler culture can responsibly attempt to reinhabit colonized land. Indeed, improvement of the wilds of BC was heralded as an imperial cause in the late 1800s and early 1900s. Ecological reinhabition could be a new iteration of the desire for settler culture to improve the flawed forests, waters, and hills of BC. Conservationists have historically been accused of ignoring indigenous land rights and land use. I maintain that bioregionalism reinhabitation, while, as Barry Lopez writes in *The Rediscovery of North America*, is burdened with colonial desires for “occupation,” can yield modes of sustainable culture. Lopez says that through bioregionalism settler culture humans may “come to know the land . . . what more may be there other than merchantable timber, grazeable prairies, recoverable ores, damable water, netable fish . . . by looking upon the land not as its possessor but as a companion.” To know the land as “a companion” requires “intimacy” . . . “being *in* a place, taking up residence in a place.” In Belford’s poems, this bioregional residence comes with anxiety, with a desire for authentic belonging, and a wary eye of resource extraction

Belford's bioregional anxieties resolve, partially, in the sixth poem, with his declarative statements about interspecies allegiances. The narrator proclaims a desire to share "this world with others," especially "animals" (lines 1-3, Belford 9). Belford seeks shelter with non-humans, living in "wild places:"

> There is a reason to share this
>
> world with others. Animals are
>
> not so different after all. For much
>
> of my life I lived in wild places
>
> that had nothing to do with anyone.
>
> I wasn't ready to be viewed, refused
>
> to adapt, and made common cause
>
> with the animals at the outlet, where
>
> I transgressed the imagined and
>
> resisted the ordered metaphors
>
> of threat. To glimpse something
>
> of these places that run between
>
> phenomena is to interrupt the flow

of the narrative. It's animals that

have a sense of place . . .

(Poem 6, Belford 10)

In this poem, Belford articulates a bioregional vision that is transgressive, utopic, and adaptive. His allegiance with "animals at the outlet" performs what Lopez means by a call to bioregional intimacy. The bioregional imagination, to generate sustainable living, must transgress what has yet been "imagined," and must resist antagonist metaphors of human vs. nature, or wild vs. domestic arrangements. This poem "interrupt[s]" the "metaphors of threat." In solidarity with his home place, the narrator can learn the animals' "sense of place" and relearn the Nass Valley as the home and territory of animals rather than the site of settler culture extraction.

In another poem, the nineteenth, the bioregion extends upwards, to the overstory, a forest space not often seen by humans:

Before I understood the overstory

structure, I lived among the poor

that result from deforestation, on

the edge of an abandoned pasture

seeded with aggressive grasses. (lines 1-5, Belford 23)

I think that this poem's "poor" creatures – the pitiable, rather than the economically impoverished – are those small trees barely holding to eroded soil, and the indigenous grasses and understory plants fiercely competing with invasive grasses. In their poverty, in their escape from economic value, they have biotic power, as they can move undetected and unharvested across the hills. These plants live between pine forest and rangeland, not unlike the community of small-plot holding human farmers the narrator has been living with. In any case, the speaker has not been alone at the margins of settler society:

> Many transitional families live
>
> awhile by the forest edge wherever
>
> there are remnant trees on the un-
>
> productive land around the city. (lines 6-9, Belford 23)

Thus allied with liminal bioregional communities, he speaker reveals that, indeed, it is the undulating grasslands, less suitable for cattle grazing, less valuable to colonizers, that are the safest:

> Out on the patches I mean, pastures
>
> are prone to burn, ridge and valley
>
> are controlled by fern, and
>
> drying leads to abandonment,

increasing fragmentation. (lines 10 – 14, Belford 23)

This poem highlights the violence of the pastoral: rangeland "pastures" are dry, flammable scars on an otherwise damp, undulating land. The ridges – unlikely places for rangeland – are "controlled by fern." The modest, damp, ferns, themselves sheltered in the shadows of these small valleys, protect the ecological integrity of the grasslands and forests more successfully than colonial cattle ranchers. "Abandonment" and "fragmentation" are signs of the land recovering from the forced, fenced ownership of cattle ranching pasture; these abandoned spaces can recover. Abandonment, plant-territory, and failed pasture emerge as spaces of remarkable bioregional recovery.

Belford's poems often engage non-humans in this kind of bioregional recovery; poetry thus expresses reinhabitory solidarity but the plants are able to reclaim the land without the aid of humans. The poems build a culture of appreciation for plant resilience, contributing to place-based knowledge. Lopez extolls place-based knowledge not for the sake of accumulating information, but because " to be intimate with the land like this is to enclose it in the same moral universe we occupy, to include it in the same moral universe we occupy, to include it in the meaning of the word community."

Creating a community of plants and people, the nineteenth poem documents the biotic history of this grassland place: from indigenous grasses to cattle pasture, and then, once the pastures are too dry and the soil too leached

to produce grasses for cattle, the cattle leave and the pines "slowly shade grasses out" and "the large disturbance of cattle is / replaced by regenerating trees" (23 – 25). Ferns protect the ridges and valleys, and the trees gradually recuperate the soils that have been torn apart by cattle hooves; the poem's regard for the regenerative capabilities of the ecosystem is antiphonic to Hobson and Philips' settler memoirs, in which land is only celebrated as grassland and the pines are a dark enemy. In his gentle celebration of the trees, ferns and grasses, Belford resists a culture of ecological degradation; this is a poetic of bioregional reinhabitation.

A poetic of bioregional reinhabitation involves mapping the land as it is encountered, as it is intimately known. As Snyder emphasizes, bioregions "cut across" the lines of "arbitrary nations, states, and counties," and "we can regain . . . solidarity" with our home place "by discovering the original lineaments of the land" (40). In this way, people's movements through land, through displacement, migration, or nomadism, does not remove them from bioregionl attachment. The lineaments of the land can be known to those who travel through it and across it, and the fluctuations of both human and non-human populations map the changing borders of the bioregion. Further, by "land," Snyder means both the bioregional territory of the home ecosystems and those "in the mind;" we come to know our bioregion intimately, and with this knowledge we understand the land as it if were drawn by seasons, biotic communities, and the fluctuations of living populations (40). In this manner, Belford's poems map an interior and

exterior bioregional terrain, and both are mobile maps. In the nineteenth poem, the narrator is free of outsider maps, and regains a sense of bioregional "lineaments":

> There are mountains, hills,
>
> complexities and plateaus,
>
> but the turning point I mean
>
> was when I was no longer
>
> restricted by landforms, when
>
> I understood the uncertainty
>
> of calculations and the soil and
>
> water loss out on the plateau. (lines 1 – 8, Belford 26)

In this poem, the land and soil are part of a bioregional community, and are therefore incalculable in their value. The maps are no more than "skeletons" of a land that is "empty;" for the poet speaker the soil and water *are* the land and the maps are merely empty indices:

> In different morphopoetic regions,
>
> entropy can be given as follows –
>
> the watershed divides, determining borders,

and I write topology indices

of elongated lowland lines, including

mean gullies, but I do not gather

skeletons because the land is empty. (lines 9 -15, Belford 26)

Here is the terrain of consciousness; the shape of the land is the shape of the poetry – "morphopoetic regions" – and the narrator's "empty" land is, in fact, replete with watersheds, hills, valleys, and soil. The elusive nature of this poem is a determined resistance to any limiting definition of either the land or the bioregional consciousness. Resistance to definition, intimate knowledge of the land, and an economics of soil and water are elements of a thriving bioregionalism.

The penultimate poem in Decompositions, on page 95, illustrates the continuous flows of water above and below ground, of erosion, of weather, and tectonics. Now, having rejected cattle, geopolitical limits, and invasive grasses, the land is reinhabited**.** This calls for a celebration – a poetic of restoration, and the poem rejoices in the biotic "swarms," "love-wave" and "living veins" in the assemblages of "water structures:"

Swarms, composed of hundreds of events

Stretching from the background states

to the river, are indigenous to the immediate,

and this fast groundwater flow still occurs

in the upper Muskabou, where a conductivity

corresponding to other transcurrent structures

and western faults is unlike the fault lines

now encircling the interior, crossing, and then

crossing-out the living veins, the love-wave

brought to the surface, the eroded low

water structure collapsing the clouds, and

now we hold those faults in our hands. (Belford, 95)

The flow of groundwater and the "low" aquifers are inestimable, patient, and powerful. In contrast, the cattle fences, forestry roads, territorial maps, that cross the land are life-destroying and faulty. The faults of the interior – the lines of colonization – decompose in the eventual regeneration of the bioregion.

While the penultimate poem celebrates the powers of aquifers and ground water, the final poem of *Decompositions* considers creatures taking on the task of interspecies regeneration. This poem, coming after the poet-speaker has admired the slow forces of grasses, valleys, ferns, and pines, and has learned

to see the land as an unpredictable flow of energies, is a poem that declares the book itself an adaptable, decomposing, reinhabitory poem. This bioregional poetic is meant to de-compose, to be forever out of time with titles, maps, and translations, and to be available for free, for adaptation, for life with chaos:

I give away words for a living.

Sometimes I'm the running title,

others the saw and scene, period.

I'm analects and battledore, and

I want to know, but I get into trouble

when I ask the wrong questions.

And Eve failed, and thinking of,

for example, the final warning,

the draft, the contents and copy

and cure, as well as the variants

and versions of the word, it is the leaf

and line and living mot that I bring

home to this book, something that is

more about injustice than in error, so

I hand down this workbook hint

and say, like me, leave words, and

allow these poems to bend and

cause to be, and come apart again.

Belford's poems "hand down" bioregional wisdom to those living with the mountain pine beetle and climate change in the BC northern interior. His poems are "living" words that will, like forest succession, "bend and/ cause to be, and come apart again." That is, the decomposition and recomposition of a forest, through the movements of fire, insects, grasses, human folly, or climate change, can only be known through humble bioregional intimacy. The poet might ask "the wrong question" and "get into trouble," but bioregional reinhabitation of a reductive resource-extractive culture needs poets, questions, and narrative decomposition.

Rather than decomposition, Laisha Rosnau's 2009 collection of poems, *Lousy Explorers*, observes the anomalous mountain pine beetle population from a series of "northern town[s]" and presents the pine beetle as a fertile, abundant, and noisome creature of organic composition(60). Her poems compose beetle and human interests as shared desires for fecundity, and express no great concern over landscape change. The poems are set mostly

around Prince George, a small city of 76,000 located at the confluence of the Fraser and Nechako Rivers in the Sub-Boreal Spruce biogeoclimatic zone. In "Look At Us: 2007," the poet recalls moving to "another northern town/built on the felled trees of a dying forest" (60). This poem does not explore the forest, or the climate, or the nearby rivers. Rather, it observes urban landscapes "satellite dishes . . . mobile homes . . . family barbecues," and the bioregion is largely left unexplored, unknown (60-61). The forests are a gloomy ground for urban frolicking, but have no agency in this poem.

Just one poem in *Lousy Explorers*, "Field Work," is set in the forest. In it, the narrator describes a camping trip taken down "a forest service road," the tent "hooded by the shade of pines," the campers' "rest . . . pockmarked by the crackle of beetles/on their way through bark" (63). And later, the narrator "trade[s] sleep to listen/ to their dark art . . . dream[s]/ of red-tipped wings rising on banks of air (63). This poem, then, celebrates the shade, the sounds, and the colour of the beetles; red wings move through the narrator's own dream. Later, the narrator reveals that she and her partner conceived their first child that night in the tent, surrounded by the clicking pine beetles. Back in the city, surrounded by the fecund anomalous mountain pine beetle, the pregnant narrator is nostalgic for "the drugs dropped/ and smoked in the last decade" (60). Her unromantic description of being "knocked up" and her description of conceiving the fetus amdist the sounds of beetles boring into pine trees sets her own

fertility and the pine trees' readiness for beetle inhabitation in a similar grim inevitability (60).

As a symbol of fertility, the mountain pine beetle burrowing into a pine tree, emerging with a blue-green fungi and killing the host, is a macabre choice. Pregnancy with a mountain pine beetle would be pregnancy with a creature that drains its embryonic home, which inhabits its host without invitation, and brings fungus as companion. And yet, Rosnau's alignment of her pregnancy with the beetled forest and beetle inhabitation with her pregnancy is not biologically unsound. Since the mountain pine beetle is an endemic species, its population growth is inevitable, and only the state of the pine forests determines the size of the mountain pine beetle population. The neatly planted, monocultural lodgepole pines are as fertile for the pine beetle as is Rosnau's body for pregnancy.

Rosnau's troubled biophilia, in this poem, extends anxiety about the mountain pine beetle to her own pregnancy. Whether she extends a love of life to the forests, and to the beetles, is unclear in this poem. The poems in *Lousy Explorer* build site-specific affiliations with the forest and the mountain pine beetle, and while they do not intervene in the settler culture notion of the forests as resource for human endeavor, they contribute to cultural archive of affiliations between the pine forests and humans. The emotional weight of *Field Work* disallows easy detachment from the forests, and Rosnau's uncertainty

about her pregnancy and the beetles is part of the "plunge . . . into the milieu of nature," into the difficulty, the death, and the potential for life that belongs to a sensual, honest, complex bioregional literature (Lynch 183). Rosnau's two pine beetle poems are literary antidotes for overly idealistic notions of bioregionalism as pastoral rootedness.

Bioregional Eco Art and Ecovention: Chris Drury's *Carbon Sink,* Arlene Wasylynchuk's *Saltus Illuminati*, and Peter Von Tiesenhausen's *Requiem*

The extraordinarily diverse forms of contemporary eco art rely on non-traditional art supplies, including "living plants and microbes, mud and feathers, electronic transmissions and digital imagery, temperature and wind, debris and contaminants"(Weintraub xiv). Many of these multi-sensory works question perceptible changes in bioregions – visual, auditory, tactile – and some provoke questions about human and non-human relations. Eco art may be produced and installed in and about a subject bioregion and, Weintraub believes, can "augment humanity's prospects for attaining a sustainable future" (xiv). While I will call eco art with intent to change human culture *ecovention*, I believe that ecoart that does not make claims to altering human culture still contributes to sustainable bioregional culture. Bioregional eco-art refers to or represents a particular site or bioregional occurrence and often propels a discourse of sustainability.

Bioregional eco-art about the BC northern interior pine forests would thus promote contemplation of human relations with the pine forests, with forestry and logging practice, and with the anomalous pine beetle. These themes can develop through the subject of the artwork, but also, especially in eco-art, recent trends towards experimental materials and forms would mean the inclusion of pine forest materials in the artwork. Beyond visual description, this materialist investment in the bioregion draws the viewer into the milieu of the ecosystem. In his call for greater perceptual awareness in bioregional literature, Lynch both appreciates and cautions against visual description. In "nature writing," Lynch writes, there is often "a series of scenic views and ecologically explanatory sketches," and while this can be "informative," it might also "distor[t] our experience of the natural world" (183). If a bioregion can be understood through a strictly visual experience, then car and "off-road vehicle access to remote places seem" a reasonable "form of sight-seeing," since the sight of the bioregion *is* the bioregion (183). In this troublesome equation, visual representation is a synecdoche for the bioregion, and deeper, sensory and tactile experience in a bioregion is rendered superfluous. Multi-sensory eco art made in and from the materials of the ecosystem, and ecovention that engages with the ecological and political issues of the bioregion can direct public discussion towards sustainability fits with Lynch's call for bioregional art that exceeds visual description, and is a powerful contribution to the construction of a bioregional culture.

An ecovention in resource extraction and a provocation towards discussion of the mountain pine beetle, Chris Drury's 2011 installation *Carbon Sink* is at once an environmental political statement and a work of bioregional art. The installation is a circle 14 metres in diameter, made from "beetle killed pine logs and coal," arranged in a radiating sphere and embedded in a sunken circle in the earth on the campus of the University of Wyoming in Laramie, USA. The installation, while in place, was accessible to viewers, and could be touched and looked at during the day or night. A passerby could walk or lay on installation, and could feel and see the sooty carbon marks. In this way, *Carbon Sink* brought the "sometimes . . . harsh embodied experience" of knowing a landscape to those who otherwise would not access a post-fire pine forest (Lynch 226). For those who cannot lay their hands on the carbonified trunks, walk through the fireweed and understory, or see the successionary forest changes and consider the effects of climate change on forest composition, *Carbon Sink* helps with the development of a bioregional awareness.

As an ecovention, Drury's circular installation mourns not only the shared history of the collected logs and coal, objects which "were once living trees" and which "died during times of climate warming," but also the underwhelming public discussion on the effects of coal and timber extraction. *Carbon Sink* arranges objects of resource extraction in an aesthetic manner which demands a reckoning with the relation between resource extraction, climate change and the mountain pine beetle. These relations are not linear, but, like the spiral, sinking

burned logs, they contribute to the effects of climate change. In his artist statement, Drury states that, as a result of "the burning of fossils fuels," climate change leads to "warmer winters in the Rockies [and] as a result the pine beetle survive the winters and the forests in the Rockies are dying from New Mexico to British Columbia – a catastrophic event." Drury attributes climate change to burning fossil fuels, and writes that "Wyoming is rich in both coal and oil," resources which "are shipped out of the States 365 days of the year to be burned elsewhere." Aware of the economic implications of his criticism of the coal and oil industries, Drury claims that "everyone" in Wyoming "benefits from the taxes levied on the coal and oil companies, including the University of Wyoming." Thus, from the materials in the installation, to their location on a state-funded campus, *Carbon Sink* urges site-specific contemplation of the ecological impact of coal, oil and timber extraction.

Carbon Sink's impact as an ecovention was most effectively proven, ironically, by its suspicious removal.Drury intended that *Carbon Sink* would remain in place, eventually decaying into the soil and returning carbon to the earth. In an interview, he states "I was led to believe this piece would be up until it had deteriorated" (Lockwood 4). Drury's intention was that *Carbon Sink* would compose bioregional awareness as the installation recomposed the vitality of the soil (Lockwood 4). However, less than a year after Drury installed *Carbon Sink*, the University of Wyoming removed the logs and coal and sent the pieces to an incinerator, leaving only a circular impression on the campus sod. This circle

remained as a short-lived ecological archive of Drury's ecovention. Entomologist and nature writer Jeffrey Lockwood, a professor at the University of Wyoming, believes that this removal was motivated by coal and oil industry donors to the University of Wyoming. Lockwood cites complaints about the sculpture, as well as a recent mandate from the Wyoming legislature that public "proposals for artwork shall be submitted to the university's energy resources council and the governor for approval" (Lockwood 6). Lockwood ironically suggests that the Wyoming Arts Council should also be required to approve all "energy and engineering projects in the state" (6). While Lockwood is not able to document his suspicions that the University of Wyoming "traded free speech for political pacification," the controversy surrounding the presence and removal of the artwork speaks to the provocative and political nature of eco art (Lockwood 5).

That *Carbon Sink* generated such a response speaks to the power of bioregional art grounded in particulars. This ecovention is effective politically and ecologically because it is about climate change; it refers to the material effects of climate change, the mountain pine beetle. It is located in its cultural and bioregional home and it is made of materials sourced from that bioregion**.** The multivalent nature of bioregional eco art is thus political and affective. While removal of the installation limited the affective nature of *Carbon Sink*, the political response to the work only confirms the value of bioregional eco art.

Drury's work generates political controversy because it confronts "the instrumental view" of the earth (Boetzkes 4). Boetzkes argues that "contemporary art" is successful at countering instrumentalist tendencies to commodify the earth for anthropocentric gain (4). As well, she suggests that contemporary earth art resists the equally anthropocentric and flawed "romantic view, which holds that we can return to a state of unencumbered continuity with nature" (4). Belford's poetry enacts a landscape permanently altered by colonial invasion and actively resisting biological and zoological occupation; cows lose pastoral grace and are pestilent, and pines are heroic, slowly reclaiming grassland. Drury's installation, a kind of elegy for lost carbon, only asks for immediate examination of carbon-addicted human culture.

Not all bioregional art confronts eco-political issues as directly as *Carbon Sink*. By bringing viewers closer to the ecological changes that are affecting their landscapes, especially to urban art gallery viewers who may be less likely to consider changes to the forests surrounding their cities, ecological artists can also contribute to a bioregional culture with eco-art. Sue Spaid notes that "[n]ot all ecological artists employ inventive strategies, nor do they necessarily aim to restore natural resources, stabilize local environments, value anew, or alert people to potentially confrontational conditions." However, ecological art about the anomalous mountain pine beetle might work to present the pine beetle in a light other than the terrifying militaristic representation common to media and industry rhetoric. This representation is itself an ecological intervention,

although certainly less obviously so than Drury's artwork. Arlene Wasylynchuk's installation *Saltus Illuminati* was exhibited in 2012 exhibit at the Art Gallery of Alberta in Edmonton, and while it does not immediately provoke political or cultural critique, it draws viewers into the milieu of the pine beetle affected forests, and provides a meditative space for consideration of the changing forest bioregion.

Saltus Illuminati was inspired by Wasylynchuk's encounters with the anomalous mountain pine beetle in the forests of northern BC . The installation, created for the AGA, is constructed from long paintings (approximately 8 – 10 feet long) rolled into tubes. In the exhibit Wasylynchuk stands most of the tubes vertically, sets some horizontally, and lights all the painted tubes from within. The "trees" are lit from within, and glow with either green, gold and yellow paints, ochre, russet and gold paints, or yellow, gold and white paints; the effect is of a diversely coloured growth of illuminated trunks. The "trees" are densely situated on a black, raised platform, and viewers walk around the platform, close to the forest.

In the catalogue to the exhibit, curator Diana Sherlock writes that "the Pine Beetle disaster becomes the perfect allegory to explore the culture of nature inherent to the history of the modern landscape" (4-5). Sherlock further contextualizes *landscape* as a human term to denote artificially ideal natural settings such as those in Canadian landscape painting (4 -5). For Sherlock, the

conundrum of a “man-made-natural disaster” represents human interference with the “natural world,” and Wasylynchuk’s installation creatively reinhabits that interference (4 -5).

Sherlock describes *Saltus Illuminati* as “enchanted,” and “ethereal,” imbued with a prelapsarian beauty, presenting a romantic installation of lighted, still, pine trunks (1 -3). I would like to trouble the view that Wasylynchuk’s installation, like other earth art, provides a mythological space for healing eco-harms. While Sherlock writes that that *Saltus Illuminati* evokes an “otherworld, I believe that the artwork in fact brings humans closer to the non-mythological, biological and ecological bioregion. There is only *one* mountain pine beetle “world,” and that world is the complex, dynamic, and diversely populated pine forest bioregion of BC. The colours of *Saltus Illuminati* are the colours of the mountain pine beetle affected forests, and the glow is not unlike an mountainside of reddened forests that seem to glow alongside the deep green of unaffected forests. The seemingly otherworldly nature of *Saltus Illuminati* is in fact grounded in Wasylynchuk’s particular embodied experience with mountain-pine beetle affected forests of the BC northern interior. The “planetarian feel” of bioregional art is always sited in a specific bioregion in this physical world, and *Saltus Illuminati* calls forth human reflections on the changes to the pine forests and human responses to the light and colours that reflect this vast ecological shift.

Wasylynchuk describes being drawn into and deeply affected by the complexity of the mountain pine beetle forest. In the process of collecting branches and needles that she later turned into brushes for the paintings, Wasylynhcuk was aware of her intense emotional response to the mountain pine beetle. On her website, speaking about the *Saltus* series paintings that make up *Saltus Illuminati*, Wasylynchuk explains that they "are a metaphor for loss but also for enduring energy and presence." The *Saltus* paintings and the *Saltus Illuminati* installation represent, for Wasylynchuk, the various colours and shapes the pines take as they dry, fall, and sometimes burn as a result of Mountain Pine Beetle population growth. A sense of place in bioregional culture begins with direct, multisensory experience with an ecosystem, and *Saltus Illuminati*¸ grounded in the colours, textures, and light of the mountain pine beetle forest, invites viewers to develop a sense of place in the pine forests. Beyond this sensory experience with the forest, *Saltus Illuminati* does not develop a bioregional knowledge inclusive of political, ecological, or geographic knowledge. So, while Wasylynchuk's work brings the pine forests into the artistic practice of museum installation, and allows museum-goers to experience the intensity of the anomalous mountain pine beetle, it does not directly contribute to a model of sustainable settler culture living.

A more provocative work, less aesthetically enchanting and more evocative of the ecological loss resulting from the timber extraction, Peter von Tiesenhausen's 2005 exhibit *Requiem* at the Two Rivers Gallery in Prince George,

BC consists of three installations in three connected, white, rooms. In *Requiem*. panels of wooden flooring whitewashed with fire repellent, burned to a grayish colour, and then marked with dozens of identical carbon pencil drawings of linked human forms hang on the walls. Not unlike Rosnau's metaphoric presentation of the burrowing beetle and human fetus, this image of the hordes of identical humans stands for the millions of identical mountain pine beetles, marching, it seems, through the pine forests. If Rosnau's beetles are burrowing for embryonic homes, the beetles in *Requiem* are marching, dark with soot, through the forests. Von Tiesenhausen evokes the fear that accompanies the anomalous mountain pine beetle, and in this image of the beetles as linked troops comments, in image, on the over militariazed language used to describe the beetle. Certainly, the militarized presentation of the beetle has been manipulated by industry to promote increased allowable cut rates – the enemy must be fought off. The images in *Requiem* reveal the anthropocentrism of this fear, and suggest a return to discussion of the anthropogenic causes of the anomalous mountain pine beetle.

The theme of repeated bodies, ghostly in their monochromatic crown, occurs in *Residuum* and *Resistance*. In *Residuum*, hundreds of black and gray ash drawings of lodgepole pines on sheets of pulp paper hang from the ceiling on threads. In *Resistance*, paintings of lodgepole pines are whitewashed on square plywood panels that have also burned with a torch, leaving white images of pines against a blackened background. The entirety of a black, burned,

lodgepolepine hangs from the ceiling of *Resistance* room. This theme of repetition, and of the pine forests presenting as a haunted army of bodies, is similar to Hobson's representation of the pine trees. In both Hobson's description and Tiesenhausen's representation, the similiarity and number of the pine trees is frightening. This seeming lack of diversity between the trees, especially in their monochromatic blackened burned bodies, contrasts with Wasylynchuk's representation of the pine beetle affected trees as bright and coloured. A monochromatic forest, redolent with carbon, haunted by the shadows of linked human figures, is antithetical to the notion of a healthy pine forest as a green, thick, timber resource. Forest succession means that, in fact, a post-fire forest, a mountain pine beetle-kill forest, and a green, lush forest are all *healthy* forests. And while Tiesenhausen's installation admits the same feelings of fear and mourning that Barb Carlson and Sarah Thirsk spoke of Chapter Two, the space between the images, and the movement between the rooms, suggests a transition out of mourning. Just as a forest moves through its seral stages, in succession from black to green, from tall to low, the viewer moves from images of humans etched by the forest, to images of the forest in relief, and to that testament of ecological resilience, the swaying, burned, tree. In this way, *Requiem* transitions humans from the fear of the pines that Hobson, Carlson and Thirsk experience to ecological and human reinhabitation of those same pine forests.

In bioregional art, “the complexity of possible interpretations,” like the complex, demanding, and visually arresting images in *Requiem*, are “likely to parallel the intensity of the relationship” with the home place (Thayer 94). The number of images in this exhibit – hundreds, at least -, the size of the exhibit, and the multitude of ways the shape of the lodgepole occurs, reflects Tiesenhausen’s relationship with the mountain pine beetle forests, the charred pieces of burned forests, and the craggy shapes of lodgepole pines. In terms of creating a bioregional culture for the lodgepole pine forests and the mountain pine beetle, then, this work expresses an intimate individual artistic relationship, and offers the fruits of this intimacy to attentive viewers.

Once the necessary mourning for the green pine forest is complete, Tiesenhausen’s forest continues to welcome viewers into the bioregional imagination. The exhibit encourages slow movement and careful examination of the human and tree images. In *Resistance*, a viewer may stand, perplexed, under the blackened tree, wondering at the both the fragility and the strength of the pine forest. The good perceptual questions then arise: Which ecosystem can be chewed through by beetles, burned to carbon, and then regenerate with new, diverse life? Which bioregion creates carbon, ash, and new trees in one instance? What symphony of sustainability, what surge of regrowth can be at play in the forest? Not a tragedy, but a wonder of sorts, and biophilia, the love of life, is burnished in the midst of mourning. So while Tiesenhausen himself admits he was devastated by the changes wrought by the mountain pine beetle, his

work also demands hope. His creation of a hopeful artwork out of the bodies and marks of a burned forest is the work of bioregional reinhabitation.

Conclusion: Eco-art and Ecovention as "Essential Work"

The essential work of bioregional reinhabitation of the forests of the BC northern interior will be political, agricultural, silvicultural, and judicial. As well, bioregionalism maintains that for the work of sustainable culture change to be continuous it must grow out of sincere and complex attachment to a home place. Reading, seeing, and feeling manifestations of the mountain pine beetle in the terrain of human consciousness contributes to a bioregional attachment to pine forests, the grasslands, the ferns, the gullies, the towns and the burned trees of the BC northern interior. Bioregional ecological art can, as Sue Spaid describes, provide an "ecovention" in understanding of, attachment to, and, hopefully, action for sustainable cultures. Tom Lynch concludes his study of bioregional literature by admitting that "[s]tories alone are not the whole solution, but . . . are a necessary part of the solution" (232). The stories about our home place "motivate us to engage in . . . essential work"(232). The poetry and artworks about the mountain pine beetle does this work, by reconfiguring and reimagining settler culture relations with the forests and the forest inhabitants. Bioregional art about the pine forests envisions new relations between humans, forests, and forest organisms. Bioregional art interrupts the settler culture discourse of resource extraction. It resists the narcissistic hero

narratives of most settler literature, and creates hope for peaceful, sustainable relations for all residents of the BC northern interior.

CONCLUSION

CONTINUING ECOVENTIONS IN SETTLER CULTURE IN THE BC NORTHERN INTERIOR

My project is bioregional in form, collecting literary and artistic narratives about the pine forests of the BC northern interior. Further, my project sustains the bioregional project of building socially and ecologically just sustainable culture with an emphasis on attention to a home place. Not all the materials I gathered express the bioregional drive for sustainability, or even an ethic of care for other organisms. My inclusion of these narratives, however, shows the relevance of more recent ecoventions in settler culture discourse, and presses the need for settler culture to confront its distance from becoming an ecologically just culture.

In most settler culture memoirs, the narrator reduces potential bioregional awareness to anecdote, and an ecological attachment is discouraged. There is little room for biophilia, or for any other attachment to biological

complexity, in cattle ranching memoirs. Even the co-operation between Eric and Lillian Collier and the mammals of the watershed, while often suggestive of interspecies becoming, is shot through with paternalistic colonialism and an unwavering dedication to resource-based interspecies relations. The success of settler culture has depended on "a measure of alienation;" for example, the lack of understanding of forest succession, the fear of forest fires, a hatred of endemic forest insects, and marginalization and disrespect of indigenous peoples' knowledge at once limit the growth of bioregional attachment and sincere biophilia and allow for industrial growth unhindered by ecological concerns.

Does this mean, then, that settler culture in BC cann*ot* succeed as a bioregional culture? I don't think so. Recent literature such as June Woods' *Nechako Country*, and Ken Belford's *Decompositions* suggest an attachment to the indigenous species of the home place along with a desire to reconcile complicated white settler human communities to the changing political and ecological landscape.

The swans, the watersheds, and the pine forests of the Nechako River region compel June Woods towards a more politicized, more ecologically critical, and more bioregionally aware culture than that of her parents. The settler culture's attachment to land, which may have been propelled by a desire for wealth, land ownership, or status, becomes a sincere attachment to a home

place. Ken Belford's poetry struggles with a private sense of belonging to the land and the fear that a settler culture human can never truly belong. His answer, in these poems, is that it is through giving, receiving, and recombining the genetic code of narrative, that settler culture could become ecologically and culturally sustainable. The genetic code, reducing trees to units of trade and elevating white settler humans to unquestioned power, has been permanently altered by the anomalous mountain pine beetle. In this manner, it seems the epidemic nature of the anomalous mountain pine beetle is accurate: the cultural host is scarred and must recover. Let this recovery, I urge, be a bioregional reinhabitation.

Communities living with the mountain pine beetle, like those I spoke with in and around 100 Mile House, remain attached to their home places. Indeed, they experience temporary alienation from the changing landscape, and their stories of struggle to reconcile the economic, aesthetic, ecological and agricultural effects of the anomalous mountain pine beetle range from discomforting to sorrowful. But in the end, the people stay. They reimagine their homes as beautiful, as populated, as dynamic; if anything, the arrival of the mountain pine beetle has brought the lodgepole pine (a tree so multiple as to seem anonymous or invisible) to the forefront of the bioregional imagination. Everyone, now, knows what lodgepole pines and mountain pine beetles look like.

A limit of my bioregional learning is that I only spoke with settlers, read only from settler culture, and did not speak with indigenous people. Currently, British Columbia is the site of ongoing First Nations and settler land claims. Most of British Columbia is unceded First Nations territory. The province is colonial, is the site of anti-colonial resistance, and is far from reaching a postcolonial politic. In my conversations with settlers in British Columbia living with the mountain pine beetle, I encountered multiple expressions of skepticism towards colonial resource use before and during the anomalous mountain pine beetle population.

I conclude that there are three particular weaknesses in settler culture's relation towards the land and ecology in the BC northern interior. First, I have noted the consistent tendency to celebrate rugged individualism in narratives about the BC northern interior. Second, historic and recent narratives about the BC interior are marked with erasure and denial of historic and ongoing indigenous resistance to colonization. And third, in historic settler memoirs and in continuing mainstream discourse, I found the tendency to reify non-human populations as static, predictable units.

The tendency to celebrate heroic individualism is perhaps most obvious in settler memoirs. Hobson's autobiographical presentation of himself as an ever-westering hero ignores the labour of his travelling companions, the trails and roads he follows that are certainly well travelled by indigenous and other settler men and women, and his dependence on interconnected economic trade

for his cattle company. The individual subsumes the community. Later accounts, such as Christine Peters' back to the land narrative, continue to celebrate the rugged individual. Peters and her travelling companion are rescued, advised, and helped on numerous occaions by members of her indigenous and settler communities.

I have found evidence that this individualist narrative can give way to narratives of interdependence and ecological and community graciousness. Further, I think that bioregional sustainability can *only* be achieved with narratives of community co-operation and acknowledgement. The Horse Lake Co-Op's recognition of their responsibility, as a community, to care for the land, shows this understanding of interdependence. Howard Malm's reluctance to lionize his own experience in the forests and his deference to the suffering of his fellow community members shows this understanding of community interdependence. Ken Belford's poems are ridden with worry over the narrator's yearning to be connected at a molecular level with his home ecosystem. In these narratives, belonging rather than heroism propels action and care; this focus on belonging rather than heroism speaks to a potentially social and ecologically just bioregional ethic.

The denial of indigenous resistance is an insidious, persistent erasure in BC settler culture narratives. Hobson's chillingly blasé rendering of the Tsilhqot'in Nation as a vanquished people and the Tsilhqot'in War as a charming

crime or ghost story is the clearest example of this denial. However, Christine Peters' invocation of the "ecological Indian" as a lazy, animalistic, anti-social creature also works to denial political agency to indigenous people of the BC interior. These erasures make possible white settler land claims to land that has seemingly been easily vanquished, and victory over people marginalized as incapable of, or uninterested in, self-defense . The bioregional art and literature I studied does not adequately confront ongoing indigenous resistance to settler land claims.

Partly, this problem of denial can be explained by sheer ignorance and a public school system with systematically inadequate education about colonization. But there is no excuse for a lack of curiosity, or for the invocation of tired, oppressive, and inaccurate tropes. Works such as journalist Terry Glavin and the People of the Nemiah Valley's *Nemiah: Unconquered Territory* and anthropologist Julie Cruikshank's *Life Lived Life a Story* resist tropes of inarticulate ecological indigenous people and respect the ecological and political knowledge of indigenous people. This practice should extend to settler culture literary works about the BC northern interior. My bioregional project studies, and intervenes, in settler culture's relationship with the pine forests of the BC northern interior. Since bioregionalism demands a reckoning with political and social justice demands on the home place, and an acknowledgement of all those who call that bioregion a home place, I conclude that the bioregional project of ecological and cultural sustainability in the BC northern interior can only succeed

with a conscientious project of recognition, negotiation, and reconciliation of colonization of indigenous land. This recognition of indigenous resistance to white land claims, and to the First Nations of the BC interior, should be reflected in bioregional art and literature, particularly in works that address ecological issues such as the mountain pine beetle and logging. In this project, I did not find adequate evidence of regard for First Nations.

The lack of regard for First Nations land claims and indigenous resistance to settler culture allows for – encourages – white settler culture reification of organisms as units of economic value. Settler culture, as in Hobson and Colliers' memoirs, and even in Peters' back-to-the-land memoir, reigns as the voice of insight, with the right to map, emote, and narrate the land. Reification of organisms as units for resource extraction is ecologically antithetical to sustainable bioregional reinhabitation of the BC northern interior. Interdependence between humans and the pine forests requires an expectation of organic population shift and climate change in the forest ecosystems, and the focus on populations as discrete, predictable groups limits ecological insight. Further, this attitude limits biophilia and prevents caring, sustainable attachment to the land and the development of a bioregional culture. While the mountain pine beetle and the beetle kill forests do not engender a likely biophilia, their casting as an enemy of the timber industry creates anxiety and fear about the pine forests and their endemic populations.

In my study I saw that eco-art and ecoventions can challenge the objectification of ecosystems and organic populations. The value that Arlene Wasylynchuk and Peter von Tiesenhausen place on the aesthetic, emotional, and spiritual presence of the pine forests speaks to a bioregional culture in which the pine forests are other than numbered resources. In this way, bioregional art and literature, even when not overtly political, as in Chris Drury's ecovention *Carbon Sink*, offer alternatives to the limited reductionist reification of the forests as units of economic resource.

Bioregional art and literature in the BC northern interior already offer, and will benefit from, ongoing artistic and literary ecovention in settler culture. We should expect regard for interconnections and desire for mobile understandings of the bioregion, for grasslands with resilience, and for beetles as allies. We should continue to publicly grieve ecoharms through art and literature, as does Peter von Tiesenhausen's in his emotive, nearly histrionic, repetition of the scores of human bodies and burned trees. Bioregional art and literature in the BC northern interior should to publicly discuss the interconnections between resource extraction, climate change and organic populations, as does Chris Drury in *Carbon Sink*.

Clearly, the anomalous mountain pine beetle has caused great distress for humans in British Columbia and Alberta. My conclusion that the mountain pine beetle calls for bioregional cultural adaptation in no way minimizes this

suffering. Rather, I propose that a reimagining of populations and territories in Northern BC will create increased community resilience to climate change and ultimately lead to more peaceable and stable human/non-human relations.

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