GRASSLAND DEBATES: CONSERVATION AND SOCIAL CHANGE IN THE CARIBOO-CHILCOTIN, BRITISH COLUMBIA

by

Joanna Isabel Emslie Reid

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Abstract

This thesis explores how a rural landscape – the area from Lillooet to Williams Lake along the Fraser River in British Columbia’s Cariboo-Chilcotin region – becomes the subject of increasing grassland conservation activity and with what consequences. Along the Fraser River lies the northern extent of a once vast, now endangered ecosystem called the Pacific Northwest Bunchgrass Grasslands. The landscape is the traditional, unceded territory of the Secwepemc, St’at’imc and Tsilhqot’in Nations. Ranchers have occupied and used the land since the late 1860s; for many years, the well-known Gang Ranch was the largest in North America. It is a dramatic and ecologically significant landscape to which many people hold strong attachments.

Since the 1930s, scientists, government officials, activists, and academics have travelled the region within a broad framework of conservation; these practices have intensified dramatically since the 1990s. My central research questions are: (a) how has scientific conservation extended over this rural landscape and created new social forms; and, (b) how do different people – conservationists, ranchers, and Aboriginal community members – relate to subsequent changes. I argue that ecological ideas, travelling through conservation networks, change the social meaning of the landscape, though in unpredictable ways.

I explore the middle Fraser as a site of growing conservation interest and activity. This work is situated within literatures on resource geography and environmental politics in British Columbia, which emphasize complex interrelationships among environmentalists, Aboriginal communities, and rural, non-Aboriginal people who depend on resource use activities for their livelihoods. I am also interested in the productive, disciplinary nature of scientific and state knowledge, as described in the literature on eco-governmentality. However, I see conservation as a set of discourses and practices, dynamic and emergent in a very active material, social world. In this view, I am influenced by Actor-Network Theory, which emphasizes a decentering of agency. Even as conservation changes the meaning of the middle Fraser, it is always through constant, complex negotiation with many different people and diverse non-human elements.
Preface

All research and writing was done by Joanna Reid.

Parts of this research appeared in an article entitled “The Grassland Debates: Conservationists, Ranchers, First Nations, and the Landscape of the Middle Fraser,” published in BC Studies, Issue #160 (Winter 2008/2009). Related sections can be found in Chapters 2, 3, and 4 of the dissertation.

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# Table of Contents

Abstract........................................................................................................................................... ii
Preface.............................................................................................................................................. iii
Table of Contents .......................................................................................................................... iv
List of Tables ................................................................................................................................... vi
List of Images ................................................................................................................................. vii
List of Maps ...................................................................................................................................... viii
Acronyms ......................................................................................................................................... ix
Acknowledgements ......................................................................................................................... x

Chapter 1: Introduction: The Middle Fraser...................................................................................... 1
   Introduction..................................................................................................................................... 1
   The Middle Fraser......................................................................................................................... 4
   Conservation and Social Change ................................................................................................. 10
   Methods....................................................................................................................................... 17
   Thesis Outline............................................................................................................................... 23

Chapter 2: Grassland Conservation.................................................................................................... 30
   Introduction................................................................................................................................... 30
   Early Range Science and Networks ............................................................................................. 34
   The 1970s: The Grazing Debates ................................................................................................. 37
   ENGOs ......................................................................................................................................... 43
   Working Ranches for Conservation ............................................................................................. 49
   Conclusions.................................................................................................................................. 58

Chapter 3: Ranching and Grassland Conservation.............................................................................. 61
   Introduction................................................................................................................................... 61
   The “Wild West”: Frontier Mythology and Cowboy Culture ......................................................... 64
   Grassland Knowledge ................................................................................................................... 70
   Ranch Regulation........................................................................................................................... 77
   Conclusions.................................................................................................................................. 83
Chapter 4: Grasslands, Bureaucracy, and Aboriginal Title and Rights .................. 86
  Introduction ........................................................................................................ 86
  Reserve Creation and Ranch Establishment ...................................................... 90
  New Bureaucratization of Aboriginal-Settler Relations .................................. 97
  Aboriginal People and Grassland Conservation ............................................. 108
  Conclusions ....................................................................................................... 114

Chapter 5: Exclosures: Grassland Monitoring ................................................. 115
  Introduction ........................................................................................................ 115
  Producing the Fence: Exclosure Monitoring ................................................... 118
  Fence Crossings ............................................................................................... 127
  Perceptions of Ecological Complexity and Change ....................................... 137
  Conclusions ....................................................................................................... 140

Chapter 6: The Churn Creek Protected Area .................................................. 143
  Introduction ........................................................................................................ 143
  From Ranch to Protected Area ......................................................................... 147
  CCPA Regulation: Unintended Consequences, New Opportunities ............... 162
  Conclusions ....................................................................................................... 171

Chapter 7: Conclusions .................................................................................... 174
  Introduction ........................................................................................................ 174
  Conservation and Power ................................................................................... 176
  Continuing Social Conflict .............................................................................. 179

References .......................................................................................................... 191

Appendices ......................................................................................................... 210
  Appendix A: Interviewee Consent Form (Sample) ........................................... 210
  Appendix B: “The Gesture” Short Story ......................................................... 213
List of Tables

Table 2.1: Grassland NGOs .............................................................................................................. 44
Table 2.2: Land Trust Owned Working Ranches in BC ................................................................. 55
List of Images

Image 2.1: Sign at the Entrance to Reynolds-Talking Mountain Ranch ..............................56
Image 5.1: Daubenmire Frame on permanent transect ......................................................120
Image 5.2: Daubenmire Vegetation Form EM-10 .................................................................121
Image 5.3: Becher’s Prairie enclosure (with point frames) .............................................130
Image 6.1: BC Parks sign at Churn Creek, Side A .............................................................143
Image 6.2: BC Parks sign at Churn Creek, Side B .............................................................144
Image 6.3: Churn Creek flowing into the Fraser River ......................................................148
Image 7.1: Petroglyphs near Crow’s Bar ............................................................................188
List of Maps

Map 1.1: Grasslands on the Middle Fraser .................................................................6
Map 2.1: Junction Sheep Range Protected Area.........................................................40
Map 6.1: Churn Creek Protected Area.......................................................................155
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ATV</td>
<td>All terrain vehicle</td>
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<tr>
<td>BCAC</td>
<td>BC Agricultural Council</td>
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<tr>
<td>BCCA</td>
<td>BC Cattlemen’s Association</td>
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<tr>
<td>BCTC</td>
<td>BC Treaty Commission</td>
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<tr>
<td>CC-GSWG</td>
<td>Cariboo-Chilcotin Grasslands Strategy Working Group</td>
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<tr>
<td>CCLUP</td>
<td>Cariboo-Chilcotin Land Use Plan</td>
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<tr>
<td>CCPA</td>
<td>Churn Creek Protected Area</td>
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<tr>
<td>CFIA</td>
<td>Canadian Food Inspection Agency</td>
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<tr>
<td>CORE</td>
<td>Commission on Resources and Environment</td>
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<tr>
<td>CPAWS</td>
<td>Canadian Parks and Wilderness Society</td>
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<tr>
<td>CRESID</td>
<td>Cariboo Region Environmental Stewardship Division</td>
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<tr>
<td>DFO</td>
<td>Department of Fisheries and Oceans</td>
</tr>
<tr>
<td>FPB</td>
<td>Forest Practices Board</td>
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<tr>
<td>FRPA</td>
<td>Forest and Range Practices Act</td>
</tr>
<tr>
<td>GCC</td>
<td>Grasslands Conservation Council of British Columbia</td>
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<tr>
<td>GIS</td>
<td>Geographic Information Systems</td>
</tr>
<tr>
<td>IUCN</td>
<td>World Conservation Union</td>
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<tr>
<td>MOE</td>
<td>Ministry of Environment</td>
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<tr>
<td>MOFR</td>
<td>Ministry of Forests and Range</td>
</tr>
<tr>
<td>NCC</td>
<td>Nature Conservancy of Canada</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organization</td>
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<tr>
<td>NSiQ</td>
<td>Northern Secwepemc te Qulmucw (Northern Shuswap Treaty Society)</td>
</tr>
<tr>
<td>RTF</td>
<td>Ranching Task Force</td>
</tr>
<tr>
<td>SARA</td>
<td>Species at Risk Act</td>
</tr>
<tr>
<td>SPCA</td>
<td>Society for the Prevention of Cruelty to Animals</td>
</tr>
<tr>
<td>TLC</td>
<td>The Land Conservancy of British Columbia</td>
</tr>
<tr>
<td>TNT</td>
<td>The Nature Trust of British Columbia</td>
</tr>
<tr>
<td>TUS</td>
<td>Traditional Use Study</td>
</tr>
<tr>
<td>TWG</td>
<td>Technical Working Group</td>
</tr>
<tr>
<td>UBCIC</td>
<td>Union of BC Indian Chiefs</td>
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<tr>
<td>WCEL</td>
<td>West Coast Environmental Law</td>
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<td>WCWC</td>
<td>Western Canada Wilderness Committee</td>
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Chapter 1

Introduction: The Middle Fraser

Introduction

Highway 97 bends away from the Fraser River just north of Lillooet and the river canyon is only accessible by back roads that are often thick with slippery mud. Drivers on the middle Fraser roads are sometimes advised to leave seatbelts unbuckled, so they can jump out if their vehicle starts to slide into the river canyon (Turkell 2004). Former ranch part-owner Judy Alsager writes about how her family truck slid sideways and ended up balanced dangerously half off the road above the steep canyon (1994). Traffic is rare as the road bends through Interior Douglas Fir forest, before descending the dramatic canyon to the river, across a small reaction ferry at Big Bar, then up the other side. It is at least another two hour drive to Williams Lake. Inside this highway free stretch of canyon are forestry operations, mines, ranches, Indian reserves, and three provincial protected areas.

In local histories and preliminary encounters, the middle Fraser appears an unruly place. Theophil, a character in Sheila Watson’s novel The Double Hook, call it a “thin mean place, men and cattle alike” (Watson 1959, 47). The people who live here are often described as rough, frontiersmen; “bushed-out” is an adjective that I heard visitors apply to canyon residents. I heard of a rancher who swam across the powerful Fraser River in the middle of winter to wake the ferry driver, who had passed out drunk. I heard rumors about a man shooting warning shots over holidaying RVs as they unloaded from the mid-Canyon ferry. “Apparently he is considered extremely dangerous,” a conservationist said of this man (2007). “He is likely armed and no one wants to go anywhere near him.” A local resident wrote, “Ah, ‘local colour,’ eh?” (2006). That another resident said the man “can be pleasant at times” strangely only highlights how the region feels unpredictable and uncertain to outsiders.
The middle Fraser landscape often appears as a last vestige of the Wild West, where rough, hardworking men eke out a marginal living on dry, unforgiving land. The land is indeed dry and – as a nineteenth century British traveler described the interior grasslands – the color of a lithograph (Cheadle 1931, 222). Fences and cabins symbolize a very specific 150 year history of landscape and labour; a manly struggle against the unforgiving wild. In his environmental history of the Chilcotin Plateau, Turkell writes that the “doings of pioneers have taken on an epic quality for some of their descendents, and the tumbledown Russell fences and collapsed log cabins serve as reminders of a time when ordinary people were more heroic and the country was wilder” (Turkell 2004, 113). Place names like Lone Cabin Creek, Graveyard Valley, Devil’s Garden, and Deadman’s Creek suggest isolation and risk.

Impressions of the river, the “mighty Fraser” (as Bocking, 1996, calls it) are also part of this representation. Evocatively (and using what John Ruskin called the “pathetic fallacy,” i.e. attributing human feelings to objects [Burroway 1987, 88]) journalist Bruce Hutchinson writes, “in this lash and spill of water, in the slow grinding of rock and cliff, in the perpetual slide of mountain and forest, in the erosion of mountain and gumbo rangeland, in the impact of whirlpool and winter ice, the river is forever mad, ravenous and lonely” (1950, 5). Or Sheila Watson: “The river… was a sly subtle serpent, the flick of gold under its smooth belly” (1992, 23). Watson captures a sense of enticement and also danger: “Those who stroked the belly, who let the hand slip and wander under the smooth folds, were bitten for their pain” (Ibid).

In the middle Fraser, science, government, and the rule of law can feel very far away. In *Only Horses*, a poem about the Cariboo, Alfred Purdy writes: “On the high prairie/ are only horse and rider/ wind in dry grass/ clopping in silence under the toy mountains… Only horses/ no stopwatch memories or palace ancestors” (1985, 96). “Stopwatch memories” suggest industrial time, where experience is structured within linear intervals and “Palace ancestors” suggest a monarchic lineage, a history of institutions. In *Only Horses*, the wind, grasslands, and horses are far away from heavy, regulated English history. The poem suggests emptiness and pioneer freedom. “You know, frankly, people can do whatever the hell they want to do out there,” one
conservationist said. “Forest companies, range, recreation – whatever you want to do” (2007).

Although this frontier mythology of open, unregulated space is pervasive regionally, it is a very partial reflection of how the middle Fraser has been used and understood. The region is a site of recent settler colonialism. Aboriginal people live there, but no longer control most of what was once their ancestral land. So do the ranchers, whose property rights and land uses have displaced Aboriginal people. Both have historical and legal claims to the land. More recently, scientists and government officials have identified the area’s grasslands as threatened ecosystems and seek environmental protection through many means. In the region one finds three protected areas, ecological grazing regulations, new monitoring programs and workshops, a land trust-owned working ranch, and many scientists, government representatives, academics, students, and activists travelling the grasslands for many reasons. In the last twenty years, conservation activity has increased and intensified.

In this thesis, I am centrally concerned with the middle Fraser landscape as an emerging space of conservation. I document how new scientific and governmental processes of grassland conservation are enacted and how different people relate to them. Ecological ideas, travelling though academic-bureaucratic networks, result in concrete changes in a rural landscape. At the same time, close analysis of developing ecological ideas and practices reveals how governmental programs are shaped in response to the activities of local people and non-human entities. As well, many conservation interventions have unanticipated results. Thus, conservation results in real change but never completely organizes the landscape according to principles of science and rational management. Any new order is temporary and partial. Meanwhile, ranchers and Aboriginal community members situate conservation in a longer history of bureaucratic power and often disengage from, mistrust, or challenge its processes and practices. Still, new partnerships and compromises are emerging as people recognize that lands must accommodate multiple social values. The grassland debates will always involve conflict; the goal is not to permanently solve or avoid such conflicts, but to learn to work within them for equitable and ecologically sustainable outcomes.
The Middle Fraser

At the height of the last ice age, the middle Fraser lay under an unbroken ice sheet. Even the highest parts of the plateau lay under 500 to 1000 metres of ice (Ryder 1982, 69). The ice retreated from the middle Fraser by 10,000 years BP, leaving behind large lakes. Eventually, the ice dams burst and the river continued to wear down through the land (Bocking 1996). The result was the creation of dramatic river terraces and benches – former lake beds – above the river. Because of the “rainshadow” effect of the Coast Mountains, these terraces received little rain, one reason why they became grasslands (CC GSWG 2001). Another reason is that regular fires, often set by Aboriginal people, prevented forest encroachment of “woody” species (Gayton 2003a; Turner 1997; Wikeem and Wikeem 2004). The middle Fraser is the traditional territory of the Secwepemc, St’at’imc and Tsilhqot’in peoples, who burned grasslands regularly to ease travel and encourage the growth of certain plants (among other complex socio-cultural reasons) (Blackstock and McAllister 2004; Powell 2005; Turner 1997; Wikeem and Wikeem 2004).

Forests are currently extending into the grasslands, encroachment and in-growth are, as one ecologists noted, the biggest threat to grasslands in the region (Interview 2007). Ecologists estimate that in Cariboo-Chilcotin “the area of open grasslands (<15% tree cover) has been reduced by more than 30% since 1962” (CC GSWG 2001, 4). A 1912 image of Big Bar mountain (near 100 Mile House) shows only narrow dark strips of forest, while in a 1999 image, the mountain is nearly covered (Ibid). Grasslands are, by definition, areas where tree cover is less than ten percent (Ibid). Without fire, many grasslands are slowly being forested.

Still, the middle Fraser grasslands are significant remnants of a once-vast ecosystem, the northernmost reaches of a formerly extensive ecosystem: the Pacific

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1 “Glacier recession was also rapid; retreat commenced before 13,000 years B.P. and the interior plateaux and valleys of southern British Columbia became ice free during the next two or three millennia” (Ryder 1982, 67).

2 Grasslands are “all upland, well-drained areas on which the herbaceous component of the natural vegetation is dominated by grasses or grass-like plants and tree cover is less than ten per cent” (CC GSWG 2001, 7).
Northwest Bunchgrass Grasslands (also known as the Palouse Prairie) (Steen and Iverson 2007; Wikeem and Wikeem 2004). The middle Fraser grasslands account for roughly 60 percent of grasslands in the Cariboo-Chilcotin region, “with over 125,000 hectares distributed along valley walls, river terraces, and benches from Big Bar north to approximately Williams Lake” (GCC 2004, 51). The grasslands – which form narrow bands along both sides of the river (Map 1.1) – are a rare ecosystem. They are also sites of extensive and changing human use.

Map 1.1: Grasslands on the middle Fraser (Map by Eric Leinberger; data from GCC 2004)

**Exploration, Mining, and Ranching**

The explorer Simon Fraser descended the river by canoe in 1808. Near what is now Lytton, he encountered 400 Aboriginal people on a river bank and was “taken to a camp where he found ‘people sitting in rows to the number of 1200’” (Harris 1997, 103).
Still, Fraser perceived and described a stark and unforgiving wilderness. He wrote in his journal:

This afternoon the rapids were very bad; two in particular were worse, if possible, than any we had hitherto met with, being a continual series of cascades, mixt with rocky fragments and bound by precipices and mountains, that seemed at times to have no end… I scarcely ever saw anything so dreary, and seldom so dangerous in any country… mountains upon mountains…close the gloomy scene. (Lamb 1960, 76).

In 1858, over 30,000 prospective miners left California for the Fraser River, and a good many of them reached their destination. Though most left after that first summer, placer mining continued and expanded upriver. Mining after that summer transformed large stretches of the middle Fraser, as miners dug kilometers of irrigation ditches (one near Lillooet is 11.5 km long) into the hillsides and rinsed away tons of sediment, leaving in many places only bare cobbles (Kennedy 2009). I’ve explored many such sites with geographers and local experts. People describe them as “moonscapes.” Ranchers inherited the vast network of miners’ irrigation ditches and still use some of them to direct water to their hayfields. One rancher said his land would not be worth ten dollars without water. Another interviewee said that without water, all one could produce in the landscape would be “a couple of turnips and a few boney-ass cows” (2007). Pioneers did, in fact, try dry farming on Big Bar Mountain, but it was a failed project (Interviews 2007; Logan 2005; Marriott 1994).

The cattle industry in the middle Fraser first developed to feed gold miners in the Cariboo in the 1860s (Bawtree 2005; Kind 2005; Mather 2006a; McLean 1982). The Alkali Lake Ranch, one of the oldest ranches in BC, can trace its origin to the 1860s (Twan 2006), and the famous Gang Ranch, an icon of western frontier ranching, to the late 1860s. After the gold rushes, the ranching industry restructured to provide beef for the growing markets in Victoria and Vancouver (Bawtree 2005). Ranching has thus been fundamental to culture, politics, and landscape in the middle Fraser for one hundred and fifty years. To this day, more than 42 percent of the middle Fraser is private land held
almost entirely in ranches (GCC 2004, 49). Thirty-seven percent is Crown land, most of which is attached to deeded land through long-term grazing leases (GCC 2004, 49).

**Aboriginal Lands**

Before colonial resettlement, the Fraser River was a significant food source for interior Aboriginal peoples and “in the Canyon, where fishing sites were abundant and excellent, it probably supported as concentrated and dense a non-agricultural population as anywhere in the world” (C. Harris 1997, 104). Like almost all Aboriginal peoples in British Columbia, these groups never ceded land title. Cole Harris has outlined the pattern of disease, reserve creation, and re-settlement that allowed white settlement and industry to flourish in the Canyon (1997). The alienation of land and resources from Aboriginal peoples enabled the creation of the ranching industry that today characterizes the region. Some twenty years after settlers preempted the most productive agricultural land along the Middle Fraser, Aboriginal people were allocated small reserves, most of which were rocky, steep, and dry (C. Harris 2002, chap. 7). Reserve Commissioner Peter O’Reilly also reserved access to the traditional Aboriginal fisheries; however, for complex reasons, the exclusive Aboriginal fishing rights that O’Reilly assumed did not materialize (D. Harris 2008a, chap. 4).

Currently, and in many ways, Aboriginal peoples are advancing in their claims to land and resources. The Northern Secwepemc te Qulmucw (Northern Shuswap Treaty Society) and the Esketemc First Nation are participating in the tripartite negotiations at the BC Treaty Commission (BCTC 2010; NStQ 2007a).³ The St’at’imc and Tsilhqot’in are not participating in the Treaty Process, choosing litigation and / or other forms of resistance instead. Currently, the most important Aboriginal title case active in BC courts is Tsilhqot’in Nation v British Columbia (described in Chapter 4). However, at this point, the geography of large ranches and small reserves remains almost unchanged; the creation of protected areas is the only large-scale change in tenure. Aboriginal peoples in the middle Fraser often appear peripheral to the growing debates over grassland

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³ The NStQ is “political alliance between the Canim Lake Indian Band, the Canoe Creek Indian Band, the Xat’sull First Nations and the Williams Lake Indian Band (a.k.a. Sugar Cane)” (NStQ 2007a). The Esketemc First Nation is formerly the Alkali Lake Indian Band.
conservation. Aboriginal communities and governments are negotiating title issues through treaty and in court, in arenas often separate from those of conservation. However, Aboriginal title and rights are central in the reallocation of land and resources in the middle Fraser.

**Range Regulation and Grassland Conservation**

Early travelers to the BC interior, including Governor James Douglas, “noted the luxuriant cover of bunch grass” (Hudson et al 1974, 5). However, some local range deterioration was evident as early as the 1870s (Ibid). Early regulation provided a basic framework for ranchers to negotiate range management among themselves but by the early 20th century, rangelands were heavily overgrazed (McLean 1982; Milroy and McLean 1980). “You can’t imagine what some of these ranges were like by the 1920s,” said UBC Professor of Range Management, Dr. V.C. Brink, who experienced them then. “There was so much dust. Dark, black dust” (2007). Grasslands were filled with poisonous timber milkvetch and invaded by annual cheatgrass (Bawtree 2005). There were “blow-outs” in the middle Fraser where, once the vegetation cover was removed, the wind blasted away the soil. Depressions from blow-outs are still visible today.

In response to widespread overgrazing, in 1919, the BC Provincial Government passed the *Grazing Act* and began to regulate range use systematically.⁴ Official range research began in the mid-1930s when the federal government opened BC’s first range research station at Tranquille, near Kamloops. The Province increased its interventions and, after World War II, “range management” became a common phrase among regulators and ranchers. By the 1960s, an explicit goal of the Range Branch of the Forest Service was to keep forage viable by setting guidelines for ranchers, regarding, for example, grazing seasons on certain ranges and herd sizes (Interviews 2007). Provincial range agrologists from 100 Mile House, Williams Lake, and sometimes Kamloops regulated and monitored middle Fraser grasslands. University researchers also studied them.

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⁴ There was some existing Provincial regulation (Milroy and McLean 1980), but it was not province-wide or comprehensive. As well, ranchers also carefully negotiated agreements, both verbal and written, over range use.
Since the 1980s, conservationists have sought to change land use in the middle Fraser. Conservationists see Cariboo-Chilcotin grasslands as “one of the great ecological jewels of Western North America” (Steen and Iverson 2007, 101). BC’s grasslands are the northernmost reach of an ecosystem that once extended throughout the Columbia Basin: the Pacific Northwest Bunchgrass grassland. Conservationists often note that grasslands cover less than one per cent of the province’s land area but are home to a third of its red- and blue-listed species. In the Cariboo-Chilcotin, 60 percent of grasslands lie in the middle Fraser (GCC 2004). No main highways pass through this area north of Lillooet. Most of it is in private ranches. The belt of grasslands along the Fraser River is in many ways hidden from public view. And yet, for many years, these grasslands have been the focus of much conservation activity.

**Working Ranches for Conservation**

In the 1990s, primarily because of social conflict and civil disobedience over logging, BC’s New Democratic Party (NDP) developed a multi-stakeholder land use planning process, through which participants developed regional land use plans. The NDP hoped to address social conflicts and promote environmental values through land zoning. The CORE process addressed the “big picture” issue of land allocation, resulting in the Cariboo-Chilcotin Land Use Plan. There are now three large provincial protected areas in the middle Fraser: the Junction Sheep Range, Churn Creek, and Edge Hills (BC Parks 2007a; BC Parks 2007b; BC Parks 2007c). In 1999, the non-profit organization The Land Conservancy of BC (TLC) bought Talking Mountain Ranch and placed a conservation covenant on the property to prevent subdivision. Proponents of an ecological view began changing land zoning and property regimes in the middle Fraser.

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5 The terms “red- and blue-listed species” refers to a species’ designation under the federal *Species at Risk Act* (SARA). “Red-listed” species are taxa that are extirpated, endangered or threatened. “Blue-listed species” are those that are considered vulnerable (GCC 2010). A 1995 survey of biodiversity concerns found that “38 percent of the provincial wildlife species of concern occur within the Cariboo-Chilcotin grasslands” (Hooper and Pitt 1995, iii).

6 Churn Creek Protected Area is the largest at 36,100 hectares (BC Parks 2007a). Edge Hills Provincial Park is 11,850 hectares and Junction Sheep Range Provincial Park is 4,573 hectares (BC Parks 2007b; BC Parks 2007c).

7 Talking Mountain Ranch was formerly known as Reynolds Ranch. The Land Conservancy bought 1000 acres, and there are an additional 75,000 acres attached to the property by grazing tenure (TLC 2007).
Since CORE, the “working ranches for conservation” compromise has been institutionalized in park management plans, multi-stakeholder working groups, new conservation-oriented range regulation, range stewardship and monitoring programs, and a new grasslands-focused NGO – the Grasslands Conservation Council of BC (GCC). Yet the “working ranches for conservation” model is not the permanent, stable solution it often appears; rather, it is a tenuous compromise that only vaguely represents the many changes taking place in practice, and the different and often conflicting perspectives of the people involved. In the middle Fraser, conservation is not an achievement; rather, it is a set of ongoing negotiations about the meaning and appropriate use of grasslands.

**Conservation and Social Change**

Initially, my central research questions were: (a) how has scientific conservation extended over this rural landscape and created new social forms; and, (b) how do different people – conservationists, ranchers, and Aboriginal community members – relate to subsequent changes. The first question emphasized the production and diffusion of knowledge, while the second addresses the participation, reactions, and perspectives of different social groups. However, as described in the thesis conclusions, it became clear through research that knowledge and different social perspectives are interwoven; the knowledge produced is the product of complex negotiations among many different people. Nature and the specificities of the place also shape conservation’s meaning. Thus, scientific conservation cannot simply unroll over a space, as its meaning is configured through contestation, compromise, and exchanges among people of many backgrounds and perspectives, and in relation to the landscape itself.

I approach this analysis within a provincial context of conflict over natural resources in British Columbia; literatures on environmentalism, colonialism, and resource use in the province frame my understandings. I am also influenced by works on nature and on state power and function, and science studies and other approaches that emphasize the role of networks in the production of social meaning. However, this is a regional study. I seek to understand grassland conservation in a specific place and to explain the
different perspectives of social groups. No one theory can account for the changes taking place in the middle Fraser. For example, an emphasis on the political economic interests of participants would elide the complex and dynamic positioning of the many people I interviewed, as well as the diversity among interviewees. Openness to the complexity of social position is absolutely critical in this thesis and in the grassland debates generally. As land uses are increasingly mixed, participants are brought together in new ways – navigating new, complicated territory, weighing contradictory obligations, and making trade-offs. I wanted to reflect that experience in this thesis, and thus my insistence on grounded and complex explanations of social interaction and change. The inherent complexity of this detailed, grounded study means that no single theory will be sufficient to explain the changes I explore.

*Environmental Politics in British Columbia*

My interest in this topic comes from a long-term personal interest in environmental politics in British Columbia. Since the 1970s, environmentalists have sought to protect certain natural or ecosystem values in landscapes outside the city. Early advocates promoted nature preserves and parks, areas set aside from resource use. As I describe in Chapter 7, I was an active participant in some of the environmental activism of the 1990s and came to question the wilderness preservation ideal I advocated. My project fits within the geographical literature on social conflicts around resources in BC, analyzing the changing relationships among rural livelihoods, Aboriginal people, and conservation. I am interested in how new ecological ideas re-shape these relationships over time and with what social consequences.

Environmentalism has only recently begun to take into account the historic injustices of colonialism and the fact that Aboriginal land title still exists in BC. The historical literature on colonial resettlement provides clear evidence that resettlement processes proceeded without recognition of the historic title and rights of Aboriginal

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8 As an activist in the 1990s, I wrote letters advocating park creation, was a member of the Western Canada Wilderness Committee, and attended protest camps. In 2001, I worked briefly for The Land Conservancy of BC (TLC), the land trust that now owns a large property in the middle Fraser, Talking Mountain Ranch. I also worked at a guest ranch in the middle Fraser in 1994 and 1995.
people (C. Harris 1997, 2002; D. Harris 2008a). The legacy of that failure remains today, and the issue of land redistribution is an essential part of provincial resource politics. Blomley argues that Aboriginal blockades of the early 1990s were declarations of sovereignty (1996). Braun (2002, chap. 3) clearly calls attention to how environmentalists’ ideas of an empty wilderness, essential to the preservationist ideal of the early 1990s, relied on and reproduced discourses of colonial erasure. These landscapes are not empty wilderness; as an Aboriginal writer and activist told me, “The middle of nowhere is always somebody’s somewhere” (2005). I am interested in how colonial processes and contemporary environmental reframing intersect in the middle Fraser.

Further, scholars describe how environmentalists were often in conflict with rural populations whose livelihoods depended on the resources of these landscapes (Barnes and Hayter 1999; Reed 2003). Barnes and Hayter (1999) and Hayter (2000) describe this divide as a core/periphery dynamic within a staples economy. Reed (2003) explores marginalization and change in forestry-based communities. She argues that women in forestry communities cannot be understood as either necessarily pro- or anti-environmental. Instead, their perspectives and activism are embedded in social context. Naïve assumptions about rural/urban values have caused problems in past environmental interventions. However, there has been little academic work on the politics of ranching and ranchers’ perspectives on grassland conservation.

Researchers have studied coastal regions far more than the Interior, where the middle Fraser is located. The history, ecology, and resource uses in interior grasslands are different from those of the coastal forests. As a result, the interactions among Aboriginal people, ranchers, ecologists and government are also different. My focus on grasslands is an addition to a literature that has focused primarily on forests. Further, while other geographers have examined the role of the state in re-ordering the landscape through discourse (Braun 2002), or regulating the social conflicts over forest resources (Barnes and Hayter 1999; Reed 2003), my work examines the state as a critical relay point in the travels of scientific ideas. But finally, my exploration of contemporary grassland conservation reflects a particular historical moment, a unique BC rendering of a global

**Nature and State Power**

My friend in the Interior called me with excitement to say that he had found a connection between Foucault and the middle Fraser. I knew that he was skeptical (to say the least) about post-structuralism and what he perceived to be abstruse academic theory. He then told me gleefully that he had found an archival photo of a drive team leader in the Cariboo Gold Rush with the last name Foucault. Now, I am almost reluctant to tell him that – as I explore the relationship between science, the state, and new forms of social organization in a rural landscape – I find important connections between Foucault’s work and the middle Fraser. Specifically, I use Foucault’s concept of governmentality to explore how new forms of knowledge about grasslands result in social reorganizations around state agencies and bureaucratic networks.

Governmentality is a concept that focuses on “how people and things come to be aligned in ways that enable their administration and rule” (Bridge and Perrault 2009, 488). Governmentality is concerned with the rationality of government (Ibid). Eric Darier characterizes governmentality as the rearrangement of power in three main ways: “institutional centralization around government agencies,” the “emergence of new instrumental forms of knowledge,” and the “capillary diffusion of power effects across the entire social body” (1999, 21). All three rearrangements of power – centralization, new knowledge, and diffusion – are evident in the recent and increasing production of the middle Fraser as a site of scientific conservation.

Critically, the “social body” does not comprise only human populations, but also the land and non-human nature. A growing number of scholars demonstrate how governmental and scientific knowledge about nature can be part of a larger state-building project which enables the extension of governmental power (Agrawal 2005; Braun 2000; Mitchell 2003; Scott 1998). Modernizing states collect knowledge on resources and land, enabling certain forms of political and economic calculation and new interventions (Braun 2000; Scott 1998). Recent works also demonstrate that knowledge developed in
the name of environmental protection enables new governmental processes in rural regions (Agrawal 2005; Li 2007). Influenced by such works, this thesis explores how emerging scientific knowledge about grasslands enables many new governmental activities.

In the middle Fraser the government created a pre-emption system and property rights for settlers and then, in the 1860s, began to establish reserves for Aboriginal communities. However, in this large and remote region, government regulation remained thin. The large size and limited government capacity made monitoring difficult, and government presence inconsistent and sometimes hard to locate. Human-nature relationships in the region were regulated, but not with the intensity of recent years. Ecologists began developing new scientific ideas about the grasslands in the region and many new interventions followed. What are the consequences of these interventions? My exploration of these new bureaucratic, scientific practices is not deterministic. The impacts of new environmental practices on peoples’ lives are diverse and complex. Rather, I am interested in how relationships change in this reframing of grasslands as sites of government activity, scientific research, and environmental concern. What new social meanings and relations are produced? I am interested in conservation as a form of social reorganization. New scientific ideas about nature enter government discourse and practice and a landscape is changed as a result.

The state is not a static, separate body that dominates, controls, or manipulates society from parliaments on high (Ferguson 1992; Ferguson and Gupta 2002). The state “is not the name of an actor, it is a way of tying together, multiplying, and coordinating power relations, a kind of knotting or congealing of power” (Ferguson 1992, 273). In my thesis, I am particularly interested in bureaucratic circuits tied together by certain scientific and bureaucratic ways of knowing nature. The state is, in this view, a discourse of modernity and rationality, and “governing occurs at multiple sites and through a myriad of techniques” (Rutherford 2007, 294). Many different people and entities are drawn into relation with one another through “state-like” ways of knowing. Thus, as I demonstrate throughout this thesis, the materiality of the state “resides much less in institutions than in the re-working of processes and relations of power so as to create new spaces for the deployment of power” (Trouillot 2001, 127).
State discourses are an example of what science studies theorists call a “mode of ordering” (Law 1991, 3). They are one way of ordering space and meaning. However, as I demonstrate throughout my thesis, a focus on material, embodied relations demonstrates spaciousness around state activity that would not be apparent if I had focused only on policy or theories of state function. Territories are never fully brought under control. The story of this thesis is not – as Tanya Murray Li puts it – a simple story of “governmentality rising” (2007, 32). There are more governmental programs, but each new set of practices encounters complex relations and new challenges. Furthermore, as Li writes, “programs are configured by the very forces they would contain” (2007, 282). This point is critical to my thesis. The specific scientific and governmental programs in the middle Fraser often develop in response to conflict and dissent, and the specific forms of the landscape itself.

Science studies scholar John Law writes that: “Foucault doesn’t tell stories about how [discourses] might come to perform themselves differently – how they might come to reshape themselves in new embodiments or instantiations. And neither do we learn much about how they might interact together when they are performed or embodied” (1991, 22). The concept of governmentality is interested in the relationships between rationality and government, but what is considered “rational” changes over time, in constant negotiation with many social elements. In the middle Fraser, vastly different ways of knowing nature and relating to place are being continually brought into new relations with one another. What does it mean – materially, on the ground – to say that the place is unceded Aboriginal traditional territory, a ranching landscape, and an object of scientific conservation? How do different people act and why? How do they relate to one another and many non-human entities in the grassland landscape? How have ideas about “rational” conservation responses to these landscapes changed over time?

Conservation and Social Networks

In exploring conservation and social change in the middle Fraser, I am influenced by the idea of a network. When I began my research into grassland conservation, my first impression was that everyone knew everyone else; the field is small (though growing)
and densely interlinked. Scientific rationality is a strong, resilient, and adaptable social
connector. Networks are conduits for knowledge, power, and resources that include some
and bypass others. In her work on the “ethnography of global connection,” anthropologist
Anna Tsing calls for contributions to a “project about linked relations within an only
partially organized but deeply hierarchical system” (2006, 4). Tsing describes the
transmission of ideas and the embodied connections among people in networks,
emphasizing the role of networks and connections as important tools of socio-economic
power, even as the system remains “only partly organized.” Inequality and
marginalization are key components within Tsing’s approach. Participation in networks
creates opportunities but also has disciplinary effects.

Over time, with increasing scientific practices and a growing and intensifying
network of knowledge, the meaning of grasslands is changed, often away from the
practicalities of ranch and canyon life. This change is never produced single-handedly, by
any one person seeking to inscribe a view of conservation onto the landscape. For
example, in Chapter 4, I describe the conservationists’ frustrations around the creation of
the Churn Creek Protected Area; the effects of any input into a network are
indeterminate. However, at any moment, there are: consultants writing monitoring reports
from a home office; range officials meeting with ranchers to discuss a grazing plan; parks
planners attending a meeting to discuss changes to zoning in a protected area; GIS
experts printing out a mapping report to submit to a local government; or NGO workers
designing web-pages to drum up public support for a national park. Together, these
practices are producing the idea of grasslands as endangered, rare ecosystems, in need of
scientific research and management.

Conservationists produce many changes, but their effect in the overall production
of meaning is dependent on interactions with many human and non-human entities. This
is a relational view of agency and knowledge, which I derive from now well-known ideas
within Actor-Network Theory. Actor-Network Theory shows that, among networks,
meanings are created and performed, rather than pre-existing. Meaning is “always an
effect or an outcome of the wider system of relations of which an entity is only a part”
(Barnes 2001, 528). Actor Network Theory “traces the stakes, alliances, and action of a
much enhanced array of constituents and procedures of what may count as fact,” writes

In the “wider system of relations,” ANT moves beyond analyzing networks of people as “actors” to considering the complex roles of “actants.” Law writes that if: “human beings form a social network, it is not because they interact with other human beings. It is because they interact with human beings and endless other materials too” (Law 1999, 3). Non-human actants, including everything from plants and animals to measuring instruments are integral in the development of networks (Latour 1999). Conservation is made up of complex relations among many people and things – cows, trees, grasses, measuring tapes, and much more – and its meaning is made in practice. I take up the idea of the actant most explicitly in Chapter 5, exploring how scientific practices seek to isolate variables from a complex landscape, but produce many unexpected changes; the agency of many entities is made clear when they disrupt the order that scientists organize. However, more generally, the specificities of the middle Fraser grasslands drive and animate conservation in its many changing forms. New scientific knowledge and practices develop in complex local circumstances.

**Methods**

I conducted fifty-seven interviews with conservationists, government employees, ranchers, and First Nations community members. Interviews were held in Vancouver, Victoria, Kamloops, Williams Lake, Prince George, and the middle Fraser between June 2006 and March 2010. Formal interviews lasted, on average, about 1.5 to two hours, though several were much longer. One interview, for example, lasted for nearly six hours, as a rancher fixed the hydraulics on his hay bailer, among other tasks. I also stayed with ranchers, and visited them on their properties, sometimes for a couple of days. The interviews were confidential and so in this thesis, interviewees are identified by position or perspective rather than by name. (For an example of the interviewee consent form, see Appendix A. For the UBC Ethics Certificate of Approval, see Appendix B.) I interviewed several ranchers outside the middle Fraser; the data pool would have otherwise been too
small for the interviews to be kept confidential. A confidential approach was helpful because interviewees spoke openly about controversial issues. However, over the course of the research, I came to believe that non-confidential interviews would have improved the transparency of the research and created opportunities for dialogue. I will likely use that format for future research on grassland politics.

I also travelled extensively in the region, visiting several ranches, the Churn Creek Protected Area, and the Junction Sheep Range Provincial Park. I spent many nights in a tent in the grasslands, on ranches and in protected areas. A 2008 rafting trip from Churn Creek to Yale provided a unifying experience of the region, as well as visits to the Empire Valley Ranch’s southern fields and the Crow’s Bar (on the OK Ranch), and many placer mining sites. I also attended grassland monitoring workshops, Grassland Conservation Council (GCC) meetings and a 2009 Symposium, and accompanied government officials on a day of grassland monitoring (as I describe in Chapter 3). In addition, although this thesis is largely contemporary, I explored the BC Archives, the City of Vancouver Archives, and the UBC Archives and Special Collections.

The main arguments in this thesis were formed over many hours travelling around BC, speaking (or, as I will describe in the following section, in some cases not speaking) to different people, driving back roads and highways, sleeping in motels, tents and one-room cabins, and exploring the grasslands of the middle Fraser. The experiences that shaped my research cannot be best described as findings or ideas; they are the personal context within which findings and ideas developed. Some of my initial experiences were of an open, wild landscape (the middle Fraser as frontier), as I described in the beginning of this chapter. Other experiences – scientific monitoring, visiting protected areas, meetings with specific interviewees, etc – are described as they pertain to specific topics explored in each of the five content chapters of the thesis. Next, I describe how the logistics of arranging and conducting interviews helped to shape key ideas in the thesis; specifically, my participation in grassland networks taught me about how such networks function.
Networks, Knowledge, and Opportunity

After only two months of research interviews, I felt I had tapped into a scientific-bureaucratic-academic network, and could interview conservationists, academics, and government officials with relative ease. (Usually, these interviewees fell into more than one of these categories.) Other people, particularly ranchers and First Nations community members, were more difficult to contact and interview. This has consequences for both my research and broader questions of land use; opportunities and ideas flow through these networks. Networks help to produce certain forms of order, but they are hierarchical and include some people far better than others. Subtle, often banal activities – meetings, workshops, other forms of communication – become meaningful over time and as a whole.

If I wanted to interview a conservationist – in government, an NGO, or at a university – I sent her/him an email. Within one or two days, I received a response. With only one exception, people immediately agreed to be interviewed. “I love talking about this stuff,” wrote one Victoria-based official. They outlined their availability and described their location, which was usually at an urban centre somewhere along a main highway. We met at the arranged a time. Once, a bureaucrat had to postpone our meeting for an hour, while he waited for a meeting with a Deputy Minister. Otherwise, my interviews ran as scheduled, often in air conditioned buildings. Many academics and bureaucrats are located in provincial and regional centres, in particular Vancouver, Victoria, Williams Lake, and Kamloops, where there are many opportunities for these people to come into contact with one another. Furthermore, they are well-connected by the different communications technologies they use on an everyday basis, especially email. In this sense, even telephones, roads, and buildings are active in producing the meanings of conservation that develop, and are network participants themselves.

This was in sharp contrast to the meetings I arranged with ranchers. Once, I phoned a rancher and left a message on his family’s phone, which was two hours away in town. When I arrived at his property, I had never spoken to him and was not sure if he would be there. He was not at home, but I found him out at work in his alfalfa fields. I stood at the edge of the field, and waited for him to finish a loop of the field in his tractor.
He shook my hand and said he had been expecting me. Another time, in November, I phoned a ranch manager daily for a week, and every day he was out. Finally, we managed to pick a day when he might be around and could possibly speak with me. However, he was also about to bring in the cows and might still head into Kamloops for a meeting. In the end, there was a storm coming and I decided not to make the long drive out to his property; I never met this man in person.

I discuss in Chapter 3, 5, and 6 how ranchers perceive and relate to conservationists’ knowledge and approach to grassland management. Ranchers are a part of these conservation networks, but the majority of activity – the accrual of meaning through ongoing social relations over time – is a product of the strong and growing interactions among urban, university-educated, scientists working in government or academic capacities. Furthermore, these are people who get paid to work on grassland conservation – their livelihoods are structured around their participation in these academic-bureaucratic-conservationist networks. It is important to note, too, that there is social differentiation within the ranching community that also impacts ranchers’ ability to participate in conservation networks. One rancher I interviewed said that it was hard for him to go to meetings because he did not have employees to cover for him while he was away. Conservation networks select for a class of ranchers that can afford time away from their operations.

My interviews and interview attempts with Aboriginal community members further revealed to me some of my assumptions about how social networks function. When my research began in full in May 2007, I had been working part-time at the Union of BC Indian Chiefs for two and a half years. A staff member there tried to connect me with two chiefs, phoning and emailing them directly to introduce me. When I phoned the contact information for one band, the number went to a person’s house who was no longer the chief. I told her a little bit about my project and she asked me if I was Aboriginal. When I said no, she asked me why I was interested in this project. I explained, and we did speak a little bit, though she was reluctant to meet with me. I phoned and emailed with the lands manager at one community several times; he said he would be happy to meet, but had to check with the chief. After that, he did not respond to
my attempts to contact him. I went by the band office whenever I was in the area but was not able to make contact.

In Chapter 4, I write about how conservationists report that Aboriginal people sometimes “don’t show up” for meetings. I am critical of that perspective as I am critical of my own research gaps here. In designing and carrying out this research project, I sought to include Aboriginal perspectives on these complex land issues. At the same time, I did not ask really fundamental questions about how I would make my work meaningful to Aboriginal communities involved in grassland politics. “It’s hard for First Nations to be involved in everything,” a senior conservationist said, as there are many demands for Aboriginal leaders and representatives to be a part of conservation initiatives, lands claims and other political processes, and research. Further, as I suggest in Chapter 4, academic-bureaucratic networks frame the priorities and form of many political processes in ways that might simply be irrelevant to some Aboriginal community members. Several Aboriginal community members and leaders were interested in this project and participated actively. Others were reticent or unavailable. This was the same with all social groups; certain key informants did not respond to my requests or were unavailable. At the same time, with respect to Aboriginal community members, these gaps are a consistent, structural problem in BC land politics. Saying that Aboriginal people “didn’t show up” need not be the end of a narrative, a summary of events; it can be the start of self-reflection and broader inquiry about research methods, political process, and inclusivity.

From these research experiences, two key points about networks can be drawn. First, there is a real, material, physical sense in which some people are connected better than others. Isolation and remoteness are challenges that rural people face in participating in conservation. Urban centers are hubs of knowledge production, shaping ideas about rural places. Furthermore, the rural people more likely to be able to participate in meetings and workshops are those who can afford communications technologies and time away from their operations (which often means having the capital to afford staff). Attending meetings, writing articles in grassland newsletters, participating in policy discussions, etcetera, are embodied ways in which someone can participate in – and help
shape – networks. When peoples can put their physical selves in the flow of knowledge, their interventions have the potential to shape meaning as it is produced.

However, it is not a matter of simply making connections between people. Academic-bureaucratic networks rely on shared assumptions about knowledge that might not be present in other communities. In particular, in certain planning processes, information is seen to be largely neutral, facts to be shared. These ideas might be tied to our positions as liberal subjects, who perceive rationality as a background condition in social life. Thus, the liberal subject presumes that if everyone shares information freely, the best possible outcome can be achieved. However, as I describe in Chapters 3 and 4, ranchers and Aboriginal community members often mistrust government and bureaucratic practice (as I discuss in Chapters 3 and 4). Their past experiences have suggested that knowledge is not neutral; they have regularly felt their own knowledge to be less valued in bureaucratic networks.

Furthermore, among both ranchers and Aboriginal community members (but in different ways) there is often an outright sense of past government injustice. At the Cariboo-Chilcotin Justice Inquiry in Williams Lake in 1994, at which Aboriginal community members were meant to speak about their experiences with police and the justice system, a woman asked Judge Anthony Sarich, “Who are you and why should we trust you?” The two part form of this question provides some insight into her perspective on bureaucratic process. When the woman asked, “Who are you?” what sort of answer might have satisfied her? It is hard to know. Still, it seems that the woman wanted a clearer social context for the judge; she did not believe in his neutrality simply because of his position as an appointed judge. The second part of the question – “Why should we trust you?” – suggests a long history of bad relations with bureaucracy.

I have thought a great deal about how the way I approached my research naturally included some groups better than others. In certain ways, I found myself a participant in the networks I outlined above, liable to the same challenges of inclusivity. In particular, I learned an approach emphasizing information interviews does not naturally incorporate relationship-building and collaboration and, as a result, certain social groups may not participate fully, particularly if they mistrust academics or outsiders. I found my strongest learning (and I believe best research) happened in interactions and exchanges outside
formal interviews, when I shared peoples’ space in a more open-ended way (e.g. working at the Union of BC Indian Chiefs, staying with ranchers, monitoring grasslands with ecologists). My future research will be more definitively oriented toward such approaches.

**Thesis Outline**

The thesis unfolds in two parts. In Part 1, I describe the perspectives of conservationists, ranchers, and Aboriginal community members. Although individuals’ perspectives are not contained within these broad categories – many people associate with more than one group and all have values outside these groups – this three-group analysis is intended as an introduction to the grassland debates. Part 2 explores the extension of conservation knowledge and practice in the middle Fraser; Chapters 5 and 6 explore scientific practice and protected area creation, respectively, in close detail.

A shortcoming in the last two chapters is that I was unable to interview band members at Canoe Creek or Tl’esqox (Toosey). I explore two scientific study sites in Chapter 5, and one is very close to the Tl’esqox reserve and the other is on lands where the community holds approximately 1,685 ha of grasslands and grazes cattle (GCC 2004, 54), and yet I am unable to describe the perspectives of Tl’esqox community members. Similarly, the input of the chief, land managers, and the community members who operated the haying operation at Churn Creek would be critical to an in-depth analysis of the Aboriginal perspectives on the protected area. I discuss the difficulties of these gaps in the thesis conclusions.

**Chapter 2: Grassland Conservation**

Conservation offers “a critical insight into ways in which scientific ideas about nature relate to social action” (Adams 1997, 278). In Chapter 2, I am interested in how changing ecological ideas travel and influence the state and wider social practice. Academic-bureaucratic networks transmit knowledge and help shape key grassland ideas.
There are more interventions: more grassland monitoring and consultants, increasing regulations, new university programs, and new non-governmental organizations. Over time, grasslands’ social meaning is changed through the multiplication and diffusion of conservation practices. These trends are necessary context for grassland conservationists’ complex interrelationships with the middle Fraser and the other social groups I describe in the rest of the thesis.

Over time, ideas about grassland landscapes change as different aspects of human-nature relationships are problematized in different ways. New social values emerge. In Chapter 2, I explore these changing values in four broad eras: productive grazing lands in the 1930s; wildlife protection in the 1970s; ecological protection (in a context of concern for global biodiversity) in the 1990s, and; ecology and green livelihoods in the 2000s. Key events include the creation of an Agriculture Canada Range Research Station (at Tranquille, near Kamloops), debates over grazing and wildlife at the Gang Ranch, the creation of the Junction Sheep Range Wildlife Preserve, protected area advocacy by environmental non-governmental organizations (ENGOs), and the creation of the Grasslands Conservation Council of British Columbia.

Chapter 3: Ranching and Conservation

How do ranchers relate to conservation? How do they experience the conservation networks that seek to enroll the ranching landscape in new ecological and scientific ways? Ranchers face many difficult economic circumstances: the industry is waning provincially and individual ranches’ operating margins are very slim. This vulnerability produces an overall uncertainty about the future and wariness toward social change. The historic frontier and cowboy cultures of the region celebrate masculinity and independence, an escape from the wasting influences of industrial modernity. These cultures intermingle, sharing values of hard work, belief in experiential knowledge, individualism, and wariness toward outside intervention; I later explore how these characteristics shape ranchers’ perspectives on conservation. I also note specific exclusions in this white, masculinist discourse, and suggest that conservationists risk reproducing these exclusions.
Ranchers do not oppose many of conservationists’ stated objectives, but are wary of how new ideas and programs are changing the social meaning of the grasslands on which they depend. This wariness appears as part of ranchers’ perspectives on both scientific knowledge and bureaucratic process. Ranchers often feel that conservationists privilege scientific knowledge and ideas over ranchers’ own knowledge. Ranchers experience conservation as part of a larger bureaucratic apparatus that is transforming their work and causing additional strain on already straightened circumstances; they do not face each conservation encounter singly, but as representative of a whole set of processes that they feel are increasingly outside their control. They regularly believe that conservation does not always result in improved environmental protection, but often rearranges the rights and demographics of users. Several stories demonstrate ranchers’ skepticism about scientific knowledge and wariness of bureaucratic interventions. Ranchers often believe that conservation is biased against resource producers.

**Chapter 4: Grasslands, Bureaucracy, and Aboriginal Title and Rights**

Although I have suggested that government presence in the Middle Fraser is thin, the whole sense of spaciousness that ranchers and visitors appreciate — the large property sizes and expansive rangelands under grazing leases — was produced by colonial dispossession of Aboriginal people. The entire middle Fraser is the traditional territory of the Secwepemc, St’at’imc and Tsilhqot’in Nations, who never ceded their territory through treaty or war. Bureaucratic practices were not neutral, “rational” administration; they reflected broader social values of settler society and resulted in a massive reordering of Aboriginal land and lives. Now, in BC, settler bureaucracy attempts some corrective redistribution; as I describe in Chapter 4, the Treaty Process and the New Relationship are two key frameworks within which these attempts occur. These new processes may offer many benefits for Aboriginal groups. At the same time, however, Aboriginal community members face a number of ambiguities and tensions when they try to advance their goals within a bureaucratic system that has so long marginalized them (and which so many have spent a great deal of years trying to fight). I describe interviewees’ experiences of such a conflicted position.
Grassland conservation initiatives take place within the ambiguous relations between decolonization and bureaucracy. There have been genuine efforts among conservation communities to work with Aboriginal community members. Two challenges remain. First, for the large part, conservationists take the existing property regime for granted. This is completely understandable, as their focus is on grassland protection. At the same time, BC’s grassland ownership will be fundamentally reorganized and conservationists could be active participants in helping develop programs that consider not only ecology, but also the distribution of land. Second, conservationists’ culture has not adapted to accommodate cultural difference. Some Aboriginal people still feel that they have to fight to be heard.

Chapter 5: Grassland Exclosures and the Production of Ecological Knowledge

During the environmental activism of the 1990s, the government established monitoring plots on grasslands throughout the province and these form the basis of provincial monitoring. At these sites are exclosures: areas that government officials have fenced off on Crown ranges to understand ecological change when certain variables, particularly livestock grazing, are excluded. Exclosures, as physical installations in a rural landscape, are artifacts of an era of concern for biodiversity and continue to be key sites in the production of state scientific knowledge about grasslands. At the same time, exclosure research and monitoring brings state scientists into complex negotiation with the social history, present uses, and many elements of non-human nature.

I show that state scientific practice seeks to separate certain social characteristics from natural ones, but the result is the proliferation of socio-natural hybrids. In this work, I am influenced by Latour’s well-known book We Have Never Been Modern, which challenges the Modernist assumption that a nature/culture separation never existed and highlights the production of socio-natural “hybrids” (1993). Paul Robbins mobilizes Latour’s idea in the context of state environmental planning in India, suggesting that “our landscapes have never been modern” (2005). My argument is similar to Robbins,’ as I show that governmental attempts to order the landscape have many unintended consequences. At the same time, I am also interested in how different social groups
perceive these experimental sites. Ecologists see exclosure monitoring as a basic framework around which new science can develop. Ranchers, however, perceive the disciplinary nature of these sites, the ways in which exclosures help transmit ideas about the landscape into bureaucratic apparatus.

Influenced by Bruno Latour’s work, I “followed scientists around” to explore how ecologists use these fenced areas in research; scientists use exclosures in an attempt to reorder parts of the landscape and isolate variables. However, these exclosures do not create a clear division between human use and natural ecological change; it is not “nature inside, ranching outside.” Exclosures do not sever nature/culture relationships, but rather shift existing socio-natural relations and produce new ones. Many human and non-human entities – fire, cowboys, meadow voles, etc – are agents of unexpected change. In these ways, I analyze state conservation as a product of interlinked networks and I perceive a radical de-centering of agency. State representatives do not administer an abstract and external “nature,” but rather negotiate the landscape’s meaning with many other entities. However, these activities nonetheless result in social change. Ecologists continue to develop new ways to study and analyze ecological change; overall, their practices increase. As well, ranchers are wary of exclosures as sites of knowledge production.

*Chapter 6: Churn Creek Protected Area*

During the 1990s, conservationists advocated for a national park in the middle Fraser at Churn Creek. Ranchers and other locals fiercely resisted the idea, and the area instead became a provincial protected area – the only one in the province with a working ranch in its boundaries. Conservationists were disappointed with the outcome; many felt they had failed. However, their interventions changed the region dramatically, even if in unintended ways. The arguments of this chapter are two-fold; first, that the environmentalists’ activities resulted in the increasing capture of a remote landscape in bureaucratic circuits, and; second, that the experience of this capture is not straightforward, as it is mediated on the ground by the particular natural and social characteristics of the place. I demonstrate that scientific reframing of the landscape had real consequences, though these were not the consequences their proponents intended.
The chapter moves roughly chronologically through the history of environmental interest at Churn. It begins by describing initial environmental interest, and the re-mapping of Churn as a site of conservation. Air photos and different surveys and a discourse of ecosystem representation worked together to produce the idea that this was a region in need of protection. In land use planning processes of the 1990s – the Commission on Resources and Environment (CORE) – Churn was a source of intense conflict and negotiation. In the end, Churn was re-regulated as a Provincial Protected Area, but the social negotiations did not end there. Indeed, even after intensive participatory management planning, both conservationists and ranchers express dissatisfaction with regulation and management at Churn. Debate over the meaning and appropriate uses of the area continue today. Chapter 3 explores the creation of the Churn Creek Protected Area and the social reorganizations that occur as a result of state and scientific interventions. These changes are diverse, and produce a new hybrid conservation form, a mixed use protected area. But the protected area is not an achievement, a one-time accomplishment; it remains dynamic, its meaning constantly being produced through contestation and negotiation among many people in a very specific landscape.

Chapter 7: Conclusions

In my conclusions, I revisit two fundamental themes of my thesis. First, I describe the relationships between conservation and governmentality. I explore the idea that while state and scientific knowledge results in a reorganization of the landscape and social relations, this reorganization is always partial, and developed in complex negotiations among many people and non-human entities. Second, I explore how different social groups relate and respond to the conservation networks. Overall, I suggest that conservation must be understood within larger processes of knowledge development and bureaucratic practice, and that such processes better include some social groups than others.

I also describe my experiences as a wilderness advocate. Through conflict with forestry workers and much reading and reflection, I saw that my views were shaped by
my position as an urban, middle-class, outdoor recreationalist. I understood that there were multiple valuations of rural landscapes and that the line between wild nature and human civilization, which I thought needed to be drawn in law and policed, felt self-evident to me only because of my background. I tell these stories because I think my experience reflects a broader sea change in BC environmental politics; we “enviros” now know that rural landscapes are Aboriginal traditional territories and sites of livelihoods for many workers and resource producers.

The grassland conservationists I interviewed were not politically naïve or blindly ideological as I was. Certainly grassland conservationists know that grasslands are part of working ranches and the claimed traditional territories of many interior Aboriginal nations. Yet grassland conservation continues to produce conflict in rural landscapes. Why? At the heart of the grassland debates lie concerns about land rights and resource allocation. However, these concerns often express themselves through a more widespread uncertainty about knowledge and process. This uncertainty is evident in the constant conflicts, adjustments, and negotiations that happen as people encounter each other at many sites. Academic-bureaucratic networks are changing the social meaning of the landscape and people who live and work in these landscapes are unsure about the long-term consequences. An awareness of the underlying causes of peoples’ uncertainties is an essential part of negotiating the conflicts that will always be a part of resource politics in BC.
Chapter 2

Grassland Conservation

When we’re kids and we talk about the outdoors and nature, we’re very much trained into a marine environment or a forest environment... People look at grasslands and they think, ‘Where are the trees?’ They’re not seen as an important ecosystem type. If you asked kids to draw a picture of nature, they’re going to draw forests. Or maybe a mountain and some trees. They’re not going to say, ‘Oh, and here’s a grassland – it’s a really important ecological feature.’

– Conservationist, 2010

Introduction

In 2007, a rancher told me that he had just seen bighorn sheep sharing a salt-lick with his cattle and the image stayed with me. (“Bighorns aren’t scared of cattle?” I naively asked an ecologist later. “No,” this person said. “They’re not scared at all.”) Here were two sets of ungulates, moving about over middle Fraser grasslands, and both were grazing the bunchgrass by the river. In some ways, at that moment, sharing a salt lick, the animals were not that different. And yet around these species circulate whole different networks of meaning. Both animals are iconic in local culture. The bighorn is a symbol of wild and vulnerable nature, the concern of biologists, government officials, wildlife organizations, hunters. The cow is a commodity; it represents ranching and the difficult economic practices of a Western frontier. Sheep and cattle share space and their interactions are subject to a whole history of ideas about grasslands, their social meaning and appropriate use.

Over time, new conservation ideas problematize different aspects of the socio-natural landscape. Interrelationships – such as the cattle/bighorn one – are reframed and
new knowledge develops. When I considered the rancher’s description, I found myself instantly reflecting on what I knew about livestock and wildlife competition in grasslands, the science of grazing habits, disease, sheep migrations and populations. There is a whole history of scientific ideas about the animals’ interactions. These ideas are bound up with material practices; there are, for example, many studies, management plans, workshops and conferences, and helicopter counts of bighorn population. Cattle-bighorn interactions are but one in a vast, complex grassland landscape. What grassland entities have become objects of scientific scrutiny at different times and why? In seeking to answer this question, I explore the history of grassland conservation in BC, a history which is bound up in ongoing, changing relations with ranching.

In British Columbia, grasslands cover 0.74 million hectares – less than one percent of the provincial land area (Wikeem and Wikeem 2004, 6). BC’s grasslands are the northernmost reach of an ecosystem that used to extend throughout the Columbia Basin: the Pacific Northwest Bunchgrass grassland (Ibid). These are rare ecosystems, which have not attracted the same public attention as old growth coastal forests. Grasslands have a subtle, complex aesthetic; a landscape that looks like it might contain two or three plant species contains dozens, and the soil is covered with a fragile microbiotic “cryptogamic” crust, which is sensitive to disturbance (Steen and Iverson 2007, 124). For more than eighty years, these grasslands have been subjects of environmental concern. The people concerned with grasslands are, like the ecosystem, a small and specific niche in a broader provincial landscape.

Influenced by founding members like UBC Professor of Agronomy Dr. Vernon C. Brink, grassland conservationists have emphasized the importance of science and the use of official channels to effect change.  A UBC professor told me that if Brink wanted something done, he just “picked up the phone” and called the minister, who had likely been one of his students. In 2007, Brink won the Lieutenant-Governor’s award for conservation, and an article in the Victoria Times Columnist read: “Before there was David Suzuki, back before there was Greenpeace, back before environmentalists were

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9 In the narratives that follow, Dr. Brink appears again and again, demonstrating the densely interlinked nature of grassland conservation in BC. In this chapter, to demonstrate interconnectedness, I emphasize Dr. Brink’s involvement, which has been remarkable. At the same time, there are other critical pioneers of grassland conservation. For example, the names E.W. Tisdale, Alf Bawtree, and Alistair McLean are recurrent in grassland history and scientific literature.
rockstars and radicals, there was Bert Brink” (Knox 2007). In this chapter, I explore the changing history of grassland conservation, which has a long history of emphasizing science and rational management over “rockstars and radicals.”

I am interested in how ecological ideas develop, travel, and influence state and social practice. Adams writes that conservation offers “a critical insight into ways in which scientific ideas about nature relate to social action” (1997, 278). Conservation is a complex realm of mediation between environmental ideas and material, social change. This realm is occupied by social networks through which ecological ideas travel and influence practices. In this chapter, I show that these networks transcend traditional state/non-state categories, but are connected by a scientific approach to grasslands, as academics and government officials work in close associations and individuals like Brink work across institutional divides. Furthermore, with new scientific ideas, the networks extend, intensify, and become more complex; as a result, over time, there is a proliferation of conservation activities. There are more interventions: more grassland monitoring and consultants, new university programs, new non-governmental organizations, etc. Over time, grasslands’ social meaning is changed through the multiplication and diffusion of conservation practices.

Historian Samuel Hays wrote that the conservation was part of a Progressive-era project, a “rational and scientific method of making basic technological decisions through a single, central authority” (1959, 271). Adams (1997) emphasizes similar points. He references the work of Raymond Murphy, who defines rationalization as a “linked series of developments” that includes new science and technology, an expanding capitalist economy, hierarchical organization, and a formal legal system (1994, cited in Adams 1997, 278). Adams writes, “not only has nature conservation formed part of a wider reaction to rationalization but it is also part of that rationalization” (1997, 278). In this way, Adams points to a central tension in conservation: it both challenges and reproduces rationalizing tendencies within modernity. Grassland conservation is a form of government, a way of rationalizing human-nature relationships, translating them into objects of knowledge and intervention.

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10 The article also said that Dr. Brink has “done more for the conservation movement in BC than anyone since, well, long before they started calling it a movement” (Knox 2007).
In this chapter, I examine how grassland conservation networks developed in relation to changing ecological ideas. Most examples are drawn from the middle Fraser. However, to show effectively the co-constitutive relations between a specific place and changing conservation ideas and practices, detailed case studies are needed; for this reason, Chapters 5 and 6 explore scientific practice and protected area creation, respectively, in close detail. This chapter proceeds instead through a rough history of four eras to demonstrate a changing relationship between conservation and ecological ideas.

While science is a critical input in the formation of these ideas, conservation also reflects broader, changing social valuations of grasslands. To oversimplify, these social valuations might be: productive grazing lands in the 1930s; wildlife protection in the 1970s; ecological protection (in a context of global scarcity) in the 1990s; and, ecology and green livelihoods in the 2000s. Conservation is a complex realm of relations between ideas and social action in specific places. It centers on an academic-bureaucratic network that emphasizes research, rational management, and a scientific approach to grasslands.

The ensuing four-part history is chronological, but later stages do not necessarily erase or replace earlier stages; there is much overlap and continuity, and an overall increase in conservation activity. First, I describe the early history of range science. Academic-government linkages were critical in the production and transmission of changing grassland knowledge. Early range science created space for an academic, scientific approach to range management. Second, I describe the debates over livestock/wildlife competition. Hunters were some of the first to voice concern, but wildlife officials drove the cause forward. The result was regulatory change, new scientific research, and the creation of the Junction Sheep Range Wildlife Reserve. Third, I discuss the activities of Environmental Non-Governmental Organizations (ENGOs). Naturalist societies, land trusts, and wilderness advocacy organizations all raised awareness of grasslands in urban areas and caused on-the-ground changes. In the 1990s in particular, a discourse of ecological scarcity and protected area creation resulted in new public attention to grasslands and a massive increase in conservation activity. Finally, I describe conservationists’ shift toward cooperation with ranchers, or a post-wilderness advocacy. This is the era of the “working ranches for conservation” compromise, where livelihood sustainability and environmental protection are seen as parallel aims. I briefly explore
how the Commission on Resources and Environment (CORE) reorganized environmental activity of the 1990s into protected area creation and new regulations (an issue explored more fully in Chapter 4). I also describe the work of the Grasslands Conservation Council (GCC) and land trust-owned ranches.

**Early Range Science and Networks**

In 1934, at the request of ranchers and after more than fifty years of range deterioration, the federal government opened BC’s first range research station – the Canada Range Experiment Station at Tranquille, near Kamloops (McLean 1982; Paille 2001; Tisdale, McLean, and Clark 1954). The station was a federal initiative, but provincial agencies and UBC were heavily involved (Tisdale, McLean, and Clarke 1954, 6). It could be considered a joint academic-bureaucratic project. University of Idaho range scientist E.W. Tisdale was the lead researcher. As a recent UBC graduate and future professor, Brink was hired as an assistant. Immediately, range science relied on academic-bureaucratic networks and, at the same time, helped build these networks further.

What were the different types of grasslands? What were the productivity levels of different plant species? What were livestock’s preferences? Such were the concerns of range scientists at this time (Interview 2007; Tisdale 1964). At Tranquille, there were 500 borrowed Herefords that were part of the research program (Interview 2007). Early range research focused on how to improve productivity in a grazed landscape. In a speech to the Range Experimental Station in 1955, the Dean of UBC Agronomy, Dr. Blythe Eagles, said that, “active steps are being taken to place grazing upon the same scientific basis attained by other forms of agriculture” (Eagles 1955, 2); the station was such a step.

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11 There was already a range experimental station near Manyberries, Alberta, which continued to be at the center of Canadian range research (Tisdale 1964, 90).
12 Dr. Eagles was regularly giving speeches to many different audiences on the important role for science in agriculture, creating a new space for academic, experimental agriculture as was developing at UBC. Between 1931 and 1970 he gave such speeches to audiences that included the BC Federation of Agriculture, the Vancouver Kiwanis Club, the Vancouver Institute, the BC Academy of Sciences, and others (see Box 2, Blythe Eagles Fonds, UBC Archives). Dr. Eagles was constantly making the case that
In the late 1930s, professors at UBC and the BC Deputy Minister of Agriculture decided that efforts were needed to repair depleted rangelands and consulted with representatives of the Canadian Department of Agriculture (Land and Food Systems 2010). These groups decided that a UBC professorship in range science was needed, which led to the hiring of Brink, who returned to BC (from the University of Idaho, where he worked with E.W. Tisdale) in 1939 to work as an instructor in the Department of Agronomy (Paille 2001; Interview 2007). In 1941, Brink began offering one of the first courses in range management (Interview 2007; Paille 2001). The Range Management program at UBC continued collaboration with federal and provincial agrologists (Land and Food Systems 2010). New networks of knowledge transmission were developing.

One of the best known courses was Plant Science 300, in which Brink arranged with the Canadian Department of Agriculture to have students spend summers at the Canadian research farms and experimental stations throughout BC (Brink 1961; Glen 1961). Government officials were responsible for developing and administering the students’ exams. Exam questions in the Range Experimental Branch at Kamloops demonstrate that students were required to know the specifics of rural landscapes and the practicalities of ranch life (Brink 1961):

Distinguish each of the grassland zones of the Kamloops area briefly as to the soils, relative elevations, relative climates, plant species that distinguish the zones. The characterization should be such that it indicates you are able to recognize different vegetation zones.

Give an outline for testing 6 varieties of alfalfa for hay production. State your reasons, step by step.

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experimental agriculture was on a new, permanent scientific path, like its “sister art,” medicine had also begun to travel (1931, 1).

13 The research farms and experimental stations were in Saanichton, Agassiz, Prince George, Summerland, and Kamloops (Brink 1961; Glen 1961).
Discuss the research policy of the Research Branch. How do you think it could best tie in with the research program of the universities? How do you think both can best serve the ranching industry?

The phrase “serve the ranching industry” indicates the program’s function in supporting agricultural production. Although a new body of knowledge in academic agriculture was developing, it was still closely tied to the grounded practices of ranching.

British Columbia soon had many accomplished range scientists working across academic/policy boundaries. Academics regularly worked as consultants to government, producing studies on specific rangeland issues. As well, many students graduating from the Department of Agronomy took up positions in government. Between 1917 and 1967, 1598 students graduated from the UBC Department of Agronomy and the largest group of these – 346 students (21.6%) – took up positions in the “administrative, regulatory, and extension branches of government at the municipal, provincial, and federal levels” (Eagles 1967). Networks of UBC-trained government range managers extended well into the BC interior.

The Tranquille station closed permanently in the 1980s (McLean 1982), but, as Brink said, “the message had been established.” What was the message? Grasslands were sites of scientific conservation, areas in need of research and careful management. Academic/government research could support ranchers in this work, as part of a program to develop an economically efficient industry. Tranquille was an “experimental station” scientifically but also socially, bringing government, ranchers, academics, and students together in new ways. It was an early form of experimental agriculture in the province, part of what the Dean of Agriculture saw as an important mission to “gain knowledge of soils and of plant growth and their relation to animal growth, with the subsequent building-up of this knowledge into a coherent stem of well ascertained facts that are linked together by carefully tested hypotheses” (Eagles 1954, 5). Early researchers and academics were building a new framework in which rangelands could be understood scientifically. This was an early stage in creating a space for conservation, a space for the academic-bureaucratic networks to develop and influence socio-natural activities.
The 1970s: The Grazing Debates

Hunters have a long history of conservation, part of the so-called “Sportsman’s Code,” widely adopted in Canada since the early 20th century, which states that those who enjoy hunting must bear responsibility for the protection of fish and game (Binnema and Niemi 2006). In the 1960s and 70s, hunters were some of the first to raise the alarm about the potential impacts of livestock grazing on bighorn sheep. In the Kootenays, hunters formed a “BC Bighorn Sheep Society” and a reserve was created in the Ashnola area after studies showed that cattle were eating the food of the bighorns, threatening the sheep population (Vancouver Sun 1969, 4). The wild ungulate/livestock issue came full force to the middle Fraser in the 1970s, when hunters’ concerns dovetailed with those of wildlife biologists; both groups criticized the Gang Ranch for overgrazing. Media reports of the story broke in 1973. Wildlife/livestock concern was part of a large-scale, provincial reorganization that included: the creation of a new protected area at the Junction Sheep Range, much new scientific research, and changes to range regulation. In the 1970s, grassland knowledge and regulation was being reorganized around emergent environmental concern, centered initially on wildlife. UBC professors were central in a growing emphasis on scientific approaches to conservation, advocating research, and rationalized landscape planning and management.

Overgrazing at the Gang: Creation of the Junction Sheep Reserve

In the early 1970s, a fluctuating population of around 400 bighorns lived on Gang Ranch lands (Demarchi 1972; Vancouver Sun 1973, 10). However, in 1973, after what many believed was an exceptionally dry 18 months (Demarchi 1972; Smith 1973), a Fish and Wildlife Branch game count at Churn Creek found only 24 sheep and one mule deer and that year, Harold Mitchell, Regional Wildlife Biologist for the Cariboo Region, “went public” with claims that that overgrazing by cattle at the Gang Ranch was causing a decline in the bighorn sheep population (Farrow 1973). Mitchell reported that the

14 The California bighorn sheep (found in the middle Fraser) is a different, slightly smaller subspecies from the Rocky Mountain Bighorn (found in the Kootenays).
Gang grazed up to 2,000 cattle in the Junction area all winter, so the “the sheep are in direct competition with the cattle to survive and it was a pretty serious conflict” (cited in Farrow 1977, 13). Chilco Choate, a hunting guide and cowboy, was also a vocal critic of grazing practices at the Gang (Choate 1993, Farrow 1973, Kind 2005).

Hunters and biologists called attention to deficient enforcement by the grazing division of the BC Forest Service. Victoria wildlife biologist Dennis Demarchi told the Sun: “I feel that the Chilcotin bighorn are in trouble due to the greed of Gang Ranch and the lack of assistance from the grazing division of the Forest Service” (Vancouver Sun 1973, 10). The phrase “lack of assistance” is unclear in its context; the reader does not know if it is the sheep or the Fish and Wildlife Branch who were not getting the assistance they needed. Still, it was clear that Demarchi hoped for a stronger regulatory presence. Gang Ranch cowboy Chris Kind writes: “I was at the Gang Ranch for five of those fourteen years… working in the mountains where all this overgrazing was supposed to be taking place. I met no grazing division personnel from the Forestry departments of the government” (2005, 171). According to Kind, too, the Gang Ranch was relatively untraveled by the grazing division. These two quotes suggest that in the 1970s, officials’ presence in range regulation was sparse. To Demarchi and Kind, lack of government conservation measures was partly to blame in the degradation of the forage crop.

Wildlife advocates – a coalition of biologists and hunters – began arguing for a protected area in the middle Fraser. The middle Fraser had been a ranching landscape for more than 100 years, but wildlife advocates were challenging the primacy of livestock grazing. Wildlife biologist Daryl Hebert proposed that the bench lands at Empire Valley (south of the Gang Ranch) held many benefits for wildlife (Farrow 1977) but the grasslands at the junction of the Chilcotin and Fraser rivers held the most promise. They were considered to be “the finest range on the Fraser River” (Kind 2005, 68). In 1973, Neil Harvey, then-owner of the Riske Creek Ranch, bought the range from the Gang Ranch and began negotiations with the Provincial government (Farrow 1977, Interviews 2007). Harvey agreed to trade the land for other Crown land less critical for wildlife conservation (Farrow 1997; Interviews 2007). The Junction Wildlife Management Area was created in 1973 as a mixed use area, in which some grazing was permitted (CRESD
In 1995, Junction became a Class A Provincial Park, one of the only provincial parks where cattle grazing is not allowed (CRES 2006, 2; Interviews 2007) (Map 2.1).

This was a reorganization of space around the issue of wildlife concern. Cattle have been excluded since the mid-1970s (CRES 2006, 5). The creation of the Wildlife Management Area has introduced a whole range of new activities: monitoring, prescribed burns, weed management, and “backcountry recreation” (CRES 2006, 8; Interviews 2007; Iverson and MacKenzie 2002). As well, sheep from the Junction area have been transplanted to other regions of BC, and “have been used to re-establish herds in six western states from which they had disappeared by 1900” (Steen and Iverson 2007,
Each one of these activities brings new people to the area, enrolling the Junction further in new circuits of conservation knowledge. In the middle Fraser, the result of the bighorn-cattle competition question in the middle Fraser was a new protected area. Wildlife and ranching conflicts resulted in an extension of academic-bureaucratic networks, as researchers problematized the relationship between cattle and bighorn sheep and developed many new scientific ideas and practices.

**New Science and Regulation**

In the 1970s, UBC academics in the Department of Agriculture sought quickly to reframe the debate, calling the media and wildlife branch’s public outcries emotionally charged, inadequately grounded in science. Consistently, these academics reframed the debates within a realm of expertise, restating what was scientifically known and suggesting new research. This is a process of what Tanya Murray Li calls, “rendering technical,” turning highly politicized social issues into objects of rational, governmental knowledge (2007). Reports, conferences, and new research programs developed in order that range management and regulation could proceed on a more technical ground.

To these UBC professors, the response lay not in theatrical criticisms of ranching, but in more research and rationalized land use management. In a 1974 submission to the Lands Branch (submitted by UBC Plant Science Professor R.J. Hudson) the BC Chapter of the Canadian Society of Environmental Biologists wrote that “the press, on occasion, has presented the image of the ‘rip-off’ rancher; however, we feel this description in most cases is inaccurate and unfair” (Canadian Society of Env. Biologists 1974, 4). The phrase “rip-off” could be a direct reference to a *Vancouver Sun* article about the Gang Ranch, which proclaimed “US Rancher Rip-Off Alleged” (Farrow 1973). The Society suggested, instead, a “detailed inquiry…to determine why the rancher is motivated to deplete his range resource” (Canadian Society of Env. Biologists 1974, 4). The submission moves on to describe both the need for more research into range use and ecology, and also the need for substantial changes to range regulation (Ibid).

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15 CBS are still classified as a vulnerable species by the Wildlife Branch (Demarchi et al 2000), and the local population (of two herds, with some intermixing) is down to 150-200 sheep from 450-500 in the mid-1990s (CRESD 2006, 15).
Similarly, UBC Professor of Agriculture Harry G. Smith was concerned about the attacks on the grazing division, and framed the uproar differently. He wrote to Alistair McLean, Range Ecologist at the Kamloops Experimental Station in 1973:

As I see it, the wildlife managers are at last recognizing the need to manage habitat and find that they have little knowledge, almost no authority and very little experience. This belated recognition coincides with a growing public concern for improved management and the supporters of wildlife are attacking graziers directly. Some of this may be necessary and desirable but charges such as ‘criminally negligent’ or almost so, do no one any good… if what I read in the newspapers reflects the public level of knowledge about issues it suggests to me that we are in deep trouble. (1).

Dr. Smith identified inexperience at the Fish and Wildlife Branch and growing but ill-informed public concern as the main sources of critique of ranching and the grazing division. As Smith saw it, the issue was a lack of “widely agreed goals for land management” and “criteria against which to judge the success of activities” (1973, 2). He felt that land management plans could demonstrate good range practices to the public. In Smith’s view, the relationship between cattle and grasslands was a site of complex, scientific knowledge of which most people – the public and wildlife managers both – were ill-informed. Smith identifies (and simultaneously creates) the need for a more rational, scientific approach to grazing and land assessment.

In the 1970s, wildlife/ livestock competition and range management became subjects of much scientific analysis. Academics, government scientists, bureaucrats, and trained consultants collaborated on many studies to assess potential threats to wild ungulates and make recommendations for land management. In September 1972, federal officials at the Kamloops Range Research Station organized a work planning meeting on (as the summary report was titled) Interactions Between Cattle and Wild Ungulates in Southern British Columbia; Brink was on the committee (Miltimore 1972). The purpose of the meeting was to coordinate research and knowledge on the issue of livestock/ wild ungulate competition. At the request of three provincial ministries, Brink and two other UBC Plant Science professors, R.J. Hudson and W.D. Kitts, were asked to produce a
report to address competition between livestock and the Rocky Mountain bighorn sheep (Hudson et al 1974). Although the report did not provide a concrete answer to a dynamic, complex problem, it produced an “analytical framework” and referenced emerging work in new ecology (i.e. Odum 1969) (Hudson et al 1974).\(^\text{16}\) Conservation was a way of bringing new scientific ideas into relation with rural problems.

When the Province revisited its range tenure system under the Range Act, ranchers (who wanted more secure tenure) were challenged by a wildlife and game lobby. The BC Wildlife Federation, on its submission to the Province, wrote: “the present Act and its implementation by those charged with its implementation has (sic) failed miserably to ensure the future of forage resources in this province. This has been to the detriment in some instances of the natural wildlife heritage” (Dodd and Otway 1973, 2).\(^\text{17}\) The Province established a ranching task force, made up of ranchers, and officials from several provincial ministries (Otway, 1976). In 1978, the Province passed the Range Act (under the umbrella of the Ministry of Forests Act) which deals with the allocation of tenure on Crown range. The Ministry of Forests Act was also passed in 1978. Hoberg suggests that, with respect to forests, the environmentalism that had been around since the 1960s did not become “explicitly incorporated into provincial statutes until 1978” (2001, 64). Such was the case with range regulations: new ecological ideas were brought to bear on the government specifications of range tenure and use.\(^\text{18}\)

At a 1982 Kamloops research symposium on BC grasslands (at which Brink was the keynote speaker), Dennis Demarchi presented a new provincial forage capability classification system (Nicholson, McLean, and Baker 1982).\(^\text{19}\) In Demarchi’s complex

\(^{16}\) “In summary,” the authors wrote: “and in response to the basic question – ‘do livestock and wildlife compete?’ – it can only be answered – ‘it depends.’ It depends on the level of livestock grazing, the season of use, and the topographic and vegetational characteristics of the range unit” (Hudson et al 1974, 75).

\(^{17}\) Interestingly, in its submission, the BC Wildlife Federation used “criteria set out in the UBC Agricultural Course outlining the normal floristic composition of grazing lands” (Dodd and Otway 1973, 3). This is a clear example of the diffusion of ecological ideas from the university.

\(^{18}\) This Act had some reference to protecting environmental resources on Crown land; in Section 4(c) it “directs the Ministry to ‘plan the use of the forest and range resources of the Crown, so that the production of timber and forage, the harvesting of timber, the grazing of livestock, and the realization of fisheries, wildlife, water, outdoor recreation, and other natural resource values are coordinated and integrated” (Hoberg 2001, 64).

\(^{19}\) Whereas earlier forage classification systems had emphasized rangelands and livestock grazing alone, Demarchi, who worked for the Survey and Resource Mapping Branch at the Ministry of Environment, described a classification that was intended to “classify the biomass potential of various plant life forms” for all of BC’s ungulates – “both livestock and wildlife” (1982, 292).
classification, forage is not just rangeland alone, but the many plant species ungulates consumed as food (Demarchi 1982, 292). While researchers at the Tranquille Station in the 1930s and 40s had emphasized rangeland productivity for cattle, Demarchi’s work was reframing “biomass potential” in relation to wildlife, too (Demarchi 1982, 292). This 1983 symposium was the “the last major effort to compile information on British Columbia grasslands” until the early 2000s (Wikeem and Wikeem 2004, xiii). It was a critical way in which emerging scientific perspectives on grasslands were shared and distributed among academic-bureaucratic networks. The question of grazing competition between cattle and wildlife was part of this body of growing conservation knowledge.

**ENGOs**

By the 1990s, there were many ENGOs involved in grasslands: naturalist societies, land trusts, and wilderness and endangered species NGOs, and others (Table 2.1). The acronym (“non-governmental”) suggests separateness from government, but these ENGOs were often embedded within the academic-bureaucratic networks I described above. There was proliferation of activity in the late 1980s and early 1990s, particularly around a discourse of global ecological scarcity that emphasized grasslands as rare, significant ecosystems and advocated protected area creation. Environmentalists outside the academic-bureaucratic networks began lobbying government for grassland parks, though in relatively small measure. Still, this increasing public attention intensified conservation in the middle Fraser and provincially. There was much new activity: land trusts buying ranches, new endangered species legislation, and new NGOs. As more people developed an interest in grasslands, new and more complex regulations, land designations, and management regimes developed.

Grassland conservation in the 1990s was complex and messy, and is difficult to analyze in a single frame. At a most general level, new scientific ideas about ecological scarcity led to much new conservation activity, and many more people became involved. In terms of relations between new conservation activity and the workings of academic-bureaucratic networks, however, the era was full of contradictions, contrary examples,
and part-truths. While wilderness organizations – forces outside government – actively sought protected area creation, some of the strongest park advocates were within government. While Brink and established members of the conservation network were active in NGO activity, there were also many new participants. Different organizations had different values and approaches. While some environmentalists advocated no-grazing protected areas, others suggested improved management and collaboration with ranchers. While some park advocates described the significance of grasslands in scientific, ecological, “rational” terms, a smaller number emphasized grasslands’ romantic, emotive, and aesthetic appeal. Thus, even as academic-bureaucratic networks were active and extended, it was a mixed and uneven process. The messiness is part of the story, as it suggests the diffusion of environmental ideas through wider social networks that are difficult to characterize, the fuzziness of state/society boundaries, and, in all, the complexity of contemporary conservation.

<table>
<thead>
<tr>
<th>Organization Type</th>
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<th>Start date</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naturalist Societies</td>
<td>Vancouver Natural History Society</td>
<td>1930s</td>
<td>Nature appreciation and field trips Early advocacy</td>
</tr>
<tr>
<td></td>
<td>Other local groups (e.g. Kamloops Naturalist Society)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunting and Wildlife Organizations</td>
<td>Ducks Unlimited</td>
<td>1960s</td>
<td>Wildlife advocacy</td>
</tr>
<tr>
<td></td>
<td>BC Wildlife Federation</td>
<td></td>
<td>Habitat protection, watershed management</td>
</tr>
<tr>
<td>Land Trusts</td>
<td>Nature Conservancy of Canada</td>
<td>1970s</td>
<td>Purchase of grassland properties and use of legal instruments for conservation (e.g. covenants)</td>
</tr>
<tr>
<td></td>
<td>Nature Trust of BC</td>
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<td></td>
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<tr>
<td></td>
<td>The Land Conservancy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilderness and Endangered Species</td>
<td>Canadian Parks and Wilderness Society</td>
<td>1980s</td>
<td>Protected area advocacy</td>
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<td>David Suzuki Foundation</td>
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<td>Scientific research</td>
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<td></td>
<td>Western Canada Wilderness Committee</td>
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<td></td>
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<td>Integrated Grassland Conservation</td>
<td>Grassland Conservation Council of BC</td>
<td>c.1996</td>
<td>Research and mapping</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Partnership with governments, planning Edution and outreach</td>
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</table>

Table 2.1: Grassland NGOs
Early Interest: The VNHS and Land Trusts

ENGO interest in grasslands began as early as the 1930s. The Vancouver Natural History Society (VNHS) was “born at the infant University of BC as a union of the Natural History Section of the BC Mountaineering Club and the Arbor Day Association” in 1918 (Brink 1966, 1). The organization maintained close links with UBC; for example, it offered evening classes at the UBC Department of Extension (Brink 1966, 7). Members went on fieldtrips to the interior as early as 1934; many of these trips took them to or through grasslands (Interview 2007; Peacock 1993). At around this time, natural history enthusiasts became interested in the grassland flora and fauna, particularly grasses and birds (Interview 2007). “I used to take field trips with naturalists to the Interior,” noted Brink. “From the beginning, I had to point out that the grasslands of BC were open space and valuable for recreation and wildlife. Not only cattle use grasslands” (Paille 2001, 12).

The VNHS also advocated on diverse conservation issues, such as predatory bird hunting, conservation of timber on the Capilano watershed, upkeep of provincial parks, and the damming of Buttle Lake (Peacock 1993). The organization was based in Vancouver but its area of concern extended throughout the province. The VNHS advocated grassland protection, including through a submission about grasslands to the second Provincial Sloan Commission (a commission charged with revisiting forest allocation and practices, which also included hearings on range and wildlife). The submission read: “Contained within these areas are many specialized habitats of plants and animal life, some small sections of which should be preserved for all time. Virgin grassland is almost non-existent” (Rogers 1955). However, according to Brink, this initial interest in grasslands remained largely among “botanists and technical people” (Interview 2007). Grasslands drew little public attention.

Land trusts began purchasing grassland properties in the early 1970s. Founded in 1971, the Nature Trust of BC (then called the National Second Century Fund of British Columbia) acquired its first grasslands property in the Grand Forks area between 1972

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20 The VNHS held summer camps at Pavilion in 1944 (VNHS 1944), in Oliver in 1961 (VNHS 1961), near Bridge River in 1965 (Turner 1965), and on the Chilcotin Plateau in 1971 (VNHS 1971); all of these trips took naturalists through grasslands.
and 1974, a 193 hectare property with ungulate winter range and other ecological values (Nature Trust of BC 2010a). In the 1980s, the Nature Trust also developed a proposal for conservation at the Douglas Lake Ranch and expressed interest in Wycotte Flats (part of the Gang Ranch) when the Gang came up for sale in the early 1980s (Cowan 1984a; 1984b). Brink was on the Board of the Nature Trust, along with fellow range ecologist Alistair McLean (Cowan 1983). He was often called upon to visit sites and evaluate them for their ecological value, or to develop grazing plans (e.g. at the Mount Robson Ranch) (Cowan 1983, 2). In purchasing properties, the Nature Trust seeks to represent endangered biogeoclimatic zones; bunchgrass is ranked as an “exceptional and high” priority (Nature Trust of BC 2010b). Brink’s involvement with the Nature Trust as a board member and scientist no doubt helped shape the organization’s priorities. The organization now has a fund called the Brink/ McLean Grassland Protection Fund for research, restoration, and stewardship activities in grasslands (Nature Trust of BC 2008).

Between the late 1980s and early 2000s, the Nature Trust bought several grassland properties in the Okanagan, focusing on bunchgrass and sagebrush ecosystems, and often California bighorn sheep habitat (Nature Trust of BC 2010a). During this time, the Nature Trust also began its Biodiversity Ranch Program. There was an acceleration of conservation activity around grasslands, of which land trusts were only part. Much of this activity was driven forward by the idea of global ecological scarcity, recognizing grasslands’ role as rare ecosystems under threat at an international scale. Though activism around grasslands was a small part of a growing provincial environmental movement, in the 1990s, there was some protected area advocacy within a growing recognition of the rarity and ecological significance of grasslands.

**Eco-Scarcity: The Biodiversity Phase and Protected Area Creation**

Many authors have noted a so-called global “biodiversity phase” of modern environmentalism, which drove protected area creation around the world, particularly between 1980 and 2000 (Guha 2000; Zimmerer et al 2004; Zimmerer 2006b). Grasslands

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21 During this period, the Nature Trust of BC also acquired grassland properties in the East Kootenays (Nature Trust of BC 2010c).
in BC became objects of environmentalists’ concerns over biodiversity, though late and in uneven ways. In spite of the earlier interest from naturalists and land trusts, grasslands did not receive the same attention from eco-activists as old-growth forests provincially. A government ecologist said that grasslands “are a stage behind old growth forests in terms of public awareness” and told me that he “still [didn’t] know how much the public understands and appreciates grasslands” (2007). In the late 1980s and early 1990s, when there was a surge of environmental activism, much of it focused on forestry issues. The well-known Western Canada Wilderness Committee (WCWC) did not get involved in grassland conservation until recently, in the push to create a national park in the South Okanagan (WCWC 2010).

Still, in the 1980s and 90s, discourses of grassland scarcity were appearing in BC. Ecologist Don Gayton writes: “beginning in the 1990s, attitudes began to change. Environmental groups began taking an interest in grassland ecosystems” (Gayton 2003a, 1). A 1996 Canadian Parks and Wilderness (CPAWS) newsletter bore the headline, “BC’s Grasslands Face Extinction” (Fast et al 1996, 1). The Society, which had campaigned for the creation of Grasslands National Park (in Saskatchewan) in the 1970s, turned its attention to BC’s interior grasslands in the 1980s (Interview 2007). A nature journalist wrote: “in a certain sense, these dry Interior grasslands are even more precious than British Columbia’s famed coastal rainforests. They are, in fact, our rarest ecosystem” (Hanna 1997, 22). The Canadian Nature Federation lauded the creation of the Churn Creek Protected Area as the protection of “a sizable example of the province’s rarest ecosystem” (Kendrick 1998).

By the 1990s, three interconnected environmental discourses – of scarcity, biodiversity, and protected areas – helped forward a grassland protection agenda. Different environmental agencies conducted “gap” analyses, trying to identify important landscape types and ecosystems in need of representation in protected areas. Though different agencies used different criteria, grasslands were consistently identified as underrepresented in park systems. I discuss this discourse of scarcity and representation further in Chapter 4, with reference to Churn Creek. Through conservationists’ practices of representation, science becomes enmeshed with the moral imperative to protect grasslands; ecology and advocacy are joined through ideas of representation.
The Canadian Species at Risk Act (SARA) came into force in 1996 and became a critical source of leverage for grassland conservationists. “Red and blue listed species raised the profile of grasslands,” an ecologist said (2007). If you attend a conference on grassland conservation, early in the proceedings someone will offer this statistic: grasslands are less than one percent of provincial land area, but are habitat for a third of provincial red and blue-listed species. The statistic provides a dramatic image of grasslands as an ecological niche for large numbers of beings that cannot exist elsewhere. It carries a moral imperative, which is that grasslands need protection.

Conservationists now voice concern over grassland birds (such as long-billed curlews, burrowing owls, and sharp-tailed grouse) and mammals such as badgers (Hoodicoff 2005; Hooper and Pitt 1995, iii). An earlier general concern over wildlife merged with growing interest in general grassland biodiversity (see Hooper and Pitt 1995, iii). Currently, conservationists count birds, build nest-boxes for burrowing owls, study meadow voles in exclosures, and research bighorn-cattle interactions (Interviews 2007). An ecologist said that people used to think that there was only one species of bat, but now know there are more than ten (Interview 2007). There is a proliferation of scientific knowledge about grassland species. As well, ecological scarcity and endangered species discourses are mutually supportive, and dovetail in their support of protected areas or conservation management programs. Grasslands are rare ecosystems, habitat for species that cannot exist elsewhere.

Internationally, grasslands were similarly overlooked as a threatened ecosystem. Conservationist and federal official William Henwood writes: “For most of the past century, temperate grasslands have seldom been visible on the global conservation agenda. The opportunity to protect significant representative and ecologically viable examples of this biome has been largely overlooked” (2006, 1). Henwood – who founded the international grasslands protected areas taskforce at the World Conservation Union (IUCN) in 1996 – situates grasslands in a global conservation agenda. His task force “seeks to raise the profile of temperate grasslands internationally, and advocates the

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22 “Red-listed” species are taxa that are extirpated, endangered or threatened. “Blue-listed species” are those that are considered vulnerable (GCC 2010).
creation of grasslands protected areas” (IUCN 2010). The Task Force calls temperate grasslands “the world’s most endangered ecosystem” (Ibid).

Working Ranches for Conservation

Globally, Zimmerer notes an ideological shift wherein conservationists now value livelihood sustainability alongside environmental protection (2006a). The result is an emphasis on mixed use forms of conservation and a proliferation of conservation activities on working landscapes (Zimmerer 2000; 2006a). In BC grasslands, this trend is evident; there is much conservation activity around the idea of “working ranches for conservation.” There are new regulations, land trust owned ranches, a working ranch in a provincial protected area (the Empire Valley Ranch at Churn Creek), research and monitoring, and ecological monitoring workshops for ranchers. But are conservationists ideologically committed to working with ranchers, or do they work with them out of necessity? As I discuss in Chapter 5, some ranchers believed it was the latter, or were at least wary of all the new environmental interest in their properties. But the answer is not straightforward. Of course, different conservationists have different values. A relevant point is that 40 percent of BC’s grasslands are in private property, and much of this is in ranches (GCC 2004). All conservationists I interviewed cited subdivision and development as the largest threat to grasslands. At a 2007 GCC Symposium, a presenter summarized this trend by saying that the biggest threat to grasslands was “incremental, uninformed encroachment.” Thus, maintaining large property sizes is a priority, and these large properties are ranches. Furthermore, as one government official said, “new protected area creation is unlikely. Chances are slim to none” (2007). He said that 13 percent of grasslands are in protected areas in the region already, and that the Cariboo-Chilcotin has its land use plan. Ideology aside, collaboration with ranchers is, for the foreseeable future, one of the main ways in which conservationists will achieve their goals.

23 One ecologist made an exception for the middle Fraser, where he said that tree encroachment was the biggest cause of grassland loss (2007).
In this section, I describe how: (a) the “working ranch” model of conservation developed during the Commission on Resources and Environment (CORE); (b) the related rise of the Grasslands Conservation Council and its subsequent activities; (c) land trust-owned working ranches, including in the middle Fraser; and (d) some limitations to the compromise, from the perspective of some conservationists. This is an era of moving beyond the traditional park model. Resource workers are enrolled in the activities and discourses of scientific conservation in new ways. Scientific ideas about grassland ecosystems are extended over space, more generally distributed over the landscape. These ideas also become part of the lives, practices, and subjectivities of diverse people, including ranchers, in new ways.

The Commission on Resource and Environment

In 1990, during the so-called “war in the woods” – widespread conflict and civil disobedience over logging – the New Democratic Party established a participatory, consensus-based land use planning process. The NDP hoped that regional planning agreements that rezoned the landscape to reflect different interest groups would address the conflicts. CORE addressed the “big picture” issue of land allocation, resulting in the Cariboo-Chilcotin Land Use Plan (CORE 1994). Grasslands were a small, almost incidental component of a larger planning and re-zoning process that focused on forestry. Still, grassland issues did arise at CORE. The process was a dramatic social reorganization, as different ideas about the meaning and appropriate use of grasslands came together in new ways. During and after CORE, environmental ideas were absorbed within provincial bureaucracy and regulation; grassland conservation was institutionalized. Three main grassland-related outcomes at CORE were the creation of the Churn Creek Protected Area, new ecological range regulation, and the Grassland Strategy Working Group.

A conservationist participant said that at CORE, “No one gave a damn about protecting grasslands” (2007). However, protected areas were a central and contentious concern of CORE attendees, and this brought the grassland issue to the table. The Protected Area Strategy was a significant component of CORE: over 12 percent of
British Columbia’s land was to be designated as parkland by the end of the process (Wilson 1998). To really understand the social and ecological reorganizations of CORE, it is necessary to look at a specific case in detail. I do this in Chapter 4, exploring how the Churn Creek Protected Area debates changed the middle Fraser. The end result was not what protected area proponents hoped; their interventions were mediated by conflict with local people and the specifics of the place. Still, a large provincial protected area – with a working ranch inside, the Empire Valley Ranch – was created on the basis of its grassland values. It is an institutional innovation, a new hybrid of conservation and use and its management plan reflects multiple social values (BC Parks 2000).

But CORE was not only about protected areas and zoning. After CORE, environmental activism was integrated into land use planning and regulation throughout the province. The Forest and Range Practices Act was dramatically greened, advancing ecological values on Crown Range. In a sense, much of the province became a conservation territory; there were new conservation approaches and increased rationalization of many resource extraction activities. In the 1990s, “planning became more important,” a government ecologist said. “Things became standardized and had to be written down… Although, a lot of things are written but not used” (2007).

In terms of ranching, a large change was the introduction of new range regulation, particularly in terms of the requirements for management under the Forest Act. The ecological orientation of range regulation has continued. While all ranchers using Crown range must submit a range plan, ranchers now have the option of submitting a Range Stewardship Plan. A rancher submitting a Stewardship Plan would need to set aside areas of range land for conservation purposes, write plant community descriptions, establish monitoring sites in different biogeoclimatic zones and monitor them every five years, and other activities. An ecologist said, “the targets aren’t achievable, for the most part” (2007). He said that the only place where these standards were being met was at the Empire Valley Ranch, in the Churn Creek Protected Area. A land trust employee said that the level of scientific knowledge required by these assessments would be difficult for ranchers. “As far as I can tell,” he said, “ranchers don’t know one type of grass from another. I don’t know one type of grass from another. The level of precision and accuracy you need in these assessments… would be a challenge” (2007). Still, what the range
stewardship plan regulation is discursively significant. It creates a gap, a space between present ranching practice and knowledge and a more scientific, ecological approach. It could also be said to construct a sense of present lack, calling attention to limitations in ranchers’ scientific knowledge, an issue I discuss further in Chapter 3.

During the CORE process, interested participants (both conservationists and ranchers) split off from the table and formed the Cariboo-Chilcotin Grassland Strategy Working Group (CC-GSWG). The group was led by conservationists and conservation-oriented ranchers and its purpose was to develop recommendations to regional resource management boards to “ensure the sustainability of grassland habitat and species while maintaining grazing targets” (CC-GSWG 2001, 49). While the work of the CC-GSWG continues (see for example, a 2002 report on forest encroachment and mitigation in the region [CC-GSWG 2001]), interviewees suggested that the GSWG was an important predecessor to the Grasslands Conservation Council (GCC), a multi-stakeholder organization and BC’s only NGO solely focused on grasslands.

The Grasslands Conservation Council (GCC)

In 1996, Brink and two or three people put out a call for “anyone interested in grasslands” to come to a meeting at Big Bar, in the middle Fraser, and organizers were surprised when nearly a hundred people showed up (Interviews 2007). Three years later, participants from this meeting formed the Grassland Conservation Council (GCC), a non-profit organization dedicated to “preserving, protecting, and promoting the grasslands of British Columbia” (GCC 2007a). Two early GCC slogans were, “Cows not Condos” and “Keep Working Ranches Working,” indicating the goal of conservation through working landscapes (GCC 2007; Interviews 2007). Thus, out of a meeting at Big Bar developed BC’s only grasslands NGO. A long-term environmentalist I interviewed said that the GCC was “theory to practice” (2007). When he spoke at a GCC event, this man said the GCC needed to focus its efforts on activities that “make a difference on the ground” (2007).

24 “Cows not condos” has been a popular slogan among ranchers and anti-subdivision advocates throughout the North American West.
The GCC has a large emphasis on mapping and planning. Out of eight staff members, they have two full-time GIS experts, dedicated to mapping provincial grasslands (GCC 2009). In 2000, the GCC initiated the *BC Grasslands Mapping Project – A Conservation Risk Assessment*, a four year effort to map the grasslands of the province in a Geographic Information System (GIS) (GCC 2004, 1). Although the idea of a “risk assessment” and the identification of priority areas for protection contains elements of earlier ecological scarcity discourses, conservationists now proceed within a rationalized frame of scientific research and rationalized planning and management. One of the GCC’s most successful projects was a collaboration with the Kamloops City Council to plan a higher density subdivision that would leave larger areas of natural grassland intact (Interviews 2010). The GCC has had success in re-mapping BC landscapes with grassland ecology as an important characteristic, thus making the science of species protection and ecology speak to governmental planning.

The GCC emphasizes cross-sectoral collaboration and partnership. Board members include ranchers, government officials, consultants, and other grasslands enthusiasts. The current GCC Chair is David Zirnhelt, a Cariboo rancher who has a Master’s degree in political science from UBC and was – in the 1990s and during the decision-making processes around Churn Creek – the BC Minister of Forests. Certainly the GCC solidified and expanded the grassland conservation networks in academic, government, and environmental circles. It has created new forums for sharing grassland knowledge – symposia, field trips, monitoring workshops, and a “celebration of grasslands” day. In line with the approach of one of its founding members, Brink, the GCC maintains elements of nature appreciation alongside scientific research and rationalized planning.

The Grasslands Conservation Council (GCC) is also involved in conservation on working ranches. The GCC is now developing ranch stewardship programs, working with ranchers to enhance ecosystem values on utilized range (Interviews 2007). The GCC makes an effort to recognize high quality range management. In a *Vancouver Sun* interview, GCC Executive Director Bruno DeLaSalle said, “we have to recognize that there are some grazing and livestock issues that have to be addressed – but we also have some success stories out there, where lands are being managed in a very effective way
and trends are positive” (Simpson 2007, D3). Another GCC-affiliated conservationist, a government ecologist, told me it was important to recognize that there were ranches where grassland conditions were “near pristine” (2007). “It’s not that hard to work together,” he said, and suggested that the GCC “may succeed by working collaboratively… if there’s mutual understanding of needs” (2007). Some ranchers also became involved with the organization; however, as one interviewee said, the GCC has had “a hard time engaging industry” (by which this person meant the ranching community) (2010), an issue I discuss in Chapter 5. However, it is clear that the GCC has extended the reach of ecological ideas and included ranchers in new ways.

**Land Trusts and Working Ranches**

Land trusts have been purchasing grassland properties since the 1970s and, in the 1980s, began acquiring working ranches. Currently, there are six working ranches owned by BC land trusts (Table 2.2). These organizations lease the land back to ranchers, or find managers or other agencies to run the ranch while keeping conservation values at the forefront of management (Interviews 2007; Nature Trust of BC 2010d; NCC 2010; TLC 2007). Conservation covenants or easements are sometimes used to legally bind properties together to prevent future subdivision.²⁵ In addition, property acquisition and legal protection are accompanied by new monitoring and restoration programs, as well as initiatives for fundraising for public awareness.

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²⁵ Since 1995, under Environment Canada’s “Ecological Gifts Program,” landowners who donate land or interest in land for ecological purposes qualify for tax benefits (Environment Canada 2008). However, conservationists’ use of covenants has encountered a large institutional roadblock: the Agricultural Land Commission is currently not approving new covenants on ALR lands. The ALC does offer protection against subdivision. However, landowners can apply to the ALR for subdivision, and their application may be approved within ninety days (ALC 2008). This is relevant for land trust-owned ranches, but ranches more generally.
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<th>Organization</th>
<th>Properties</th>
<th>Program Description</th>
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<tr>
<td>The Nature Trust of BC</td>
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<td>Biodiversity Ranch program “integrating livestock management with conservation of habitat for species at risk”</td>
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<tr>
<td>The Nature Conservancy of Canada</td>
<td>Frolek Ranch (Thompson-Nicola), Pine Butte Ranch (East Kootenays), Thunderhill Ranch (Columbia Valley)</td>
<td>Heritage Ranching program: Grassland and habitat protection on working ranches</td>
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<tr>
<td>The Land Conservancy of BC</td>
<td>Talking Mountain Ranch</td>
<td>TLC maintains operation of the ranch with conservation as a highest priority</td>
</tr>
</tbody>
</table>

Table 2.2: Land Trust Owned Working Ranches in BC
(Sources: Land Trust Alliance 2010; NCC 2010; Nature Trust of BC 2010d)

In 1997, TLC bought Reynold’s Ranch in the middle Fraser (now called Talking Mountain Ranch), and is now operating it as a working ranch (GCC 2004, Interviews 2007; TLC 2007). (Image 2.1 shows the sign at the property’s edge.) The property includes roughly 240 ha of grasslands. The GCC notes, “TLC’s acquisition and management of these properties and the associated range tenure area extends the corridor of protection on the west side of the Fraser River from Churn Creek Protected Area south to Watson Bar Creek” (GCC 2004, 54). TLC bought 1000 acres, and there are an additional 75,000 acres attached to the property by grazing tenure (TLC 2007). The organization, meanwhile, is trying to set up irrigation works and fencing in the southern end of the property (Interviews 2007). The TLC Board of Directors saw a key role for the organization in preventing subdivision and development and exploring the role of stewardship in grassland protection (Interview 2007). As well, TLC held working holidays at the ranch, where visitors built fences and worked on weed removal (though these holidays have now stopped). When I worked at the TLC briefly in 2001 as an outreach officer, I made a special panel on endangered species in grasslands, and my co-worker helped organize a working holiday at the ranch. Talking Mountain is monitored by the same biological consultants who monitor the Churn Creek Protected Area (Interviews 2007); they have established monitoring plots and are assessing the condition of the grasslands.
Limitations of the “Working Ranches for Conservation” Perspective

Many grassland conservationists promote models of sustainable working landscapes. The GCC has made much effort in this direction, working with ranchers and highlighting the prevalence and significance of excellent range stewardship. In fact, I spent most of three research years inside the “working ranches for conservation” compromise; few conservationists were likely to say anything that might disrupt it. Still, I know conservationists who, when reading this thesis, might agree that models of integrated conservation-production are necessary, but would suggest that ranching on certain sensitive grasslands cannot be such a model. This point of view relies on two issues of broader context: the industrial, export-oriented beef commodity chain and the significance and fragility of certain grassland ecosystems.
In my research, I emphasize social perspectives on grassland use rather than the conditions of beef production. I conducted most of my interviews in the summer, when the cattle were away from ranch headquarters on the summer range and as a result, beef production felt distant and abstract. Of course, the two are inseparable; ranching is the pastoral end of a more industrial system of meat production. Cattle are often sold at auction, transported long-distance to Alberta abattoirs (with their associated environmental impacts), and the meat is often sold to the United States.\textsuperscript{26} As well, many parts of the beef commodity chain result in pain and suffering for the animals.\textsuperscript{27} As I describe in Chapter 3, ranchers are beginning to fundamentally revisit the beef commodity chain and shift toward more locally slaughtered and direct marketed production schemes. The social and ecological outcomes of these processes are uncertain and complex. However, the current industrial, export-oriented beef commodity chain, only peripherally addressed in this thesis, might limit conservationists’ willingness to see ranching as a model of rural sustainability.

I had suggestion of this when two conservationists independently inquired, outside formal interview settings, whether I had read \textit{Fast Food Nation}. The book describes in graphic detail the conditions of American meat production (Schlosser 2002). It is not entirely clear what these conservationists hoped I would understand from the book; although it is subtitled “the dark side of the American meal” and includes a very graphic chapter on conditions and animal treatment inside a slaughterhouse, it also describes some of the challenges facing US ranchers. However, I believe that these people wanted me to have a broader understanding of some problems with industrial beef production that they did not want to describe themselves, for fear of appearing biased against ranching.

\textsuperscript{26} For information on the current structure of the industry, including location of feedlots and abattoirs, see Government of British Columbia 2009a.

\textsuperscript{27} An interviewee involved in animal welfare reported that ranchers depend on the overall health and well-being of their animals, and are often offended by outsiders’ suggestions about how to treat cattle (2009). At the same time, there is no doubt that many parts of the commodity chain result in much pain and discomfort. For example, the BC SPCA is lobbying the Canadian Food Inspection Agency (CFIA) to institute some new minimum standards for long-range cattle transport, and notes (based on CFIA statistics) that two million animals die in transit each year, and a further ten million animals are banned from consumption because they are diseased or injured (BC SPCA 2010).
Furthermore, some BC ranchers depend on sensitive, rare grasslands. As I have described, conservationists often highlight the fact that many grasslands in Western North America are now “wheat fields or weed fields.” This makes BC’s grasslands – particularly the large, contiguous, and relatively healthy grasslands of the Cariboo-Chilcotin – very significant. These areas are home to many threatened and endangered species that cannot exist elsewhere. The specific location of cattle grazing makes a difference, as some grasslands are more ecologically sensitive and significant than others. For example, one government official said that he felt that it was wrong that the ranchers at Empire Valley had so much access to such ecologically significant public park lands to run a private business. This might appear a problematic perspective, since: (a) these lands are largely public lands because conservationists advocated park creation in the first place, and; (b) as I describe in Chapter 6, the ranchers at Empire Valley have shown themselves to be keen stewards of the land and are innovators of new, more local models of beef production and marketing. However, it is in the broader context of beef production and grassland conservation that this perspective makes better sense; these are rare ecosystems being used for beef production by a private company. According to many conservationists, there are limitations to the compromise.

Conclusions

In 2007, I was at the Big Bar Guest Ranch for a one-day grasslands monitoring workshop, put on by the Grasslands Conservation Council (GCC). The GCC was developing a new handbook for ranchers to monitor ecological conditions on their ranches. In the morning, there was an introductory session in the dining room, with a Power Point presentation. The presenter showed a picture of a milk bottle, near empty. He said a person’s perspective on the milk bottle depended on their needs and objectives. If, for example, the person had children and needed lots of milk for their breakfast, they would see the milk situation as a problem. If, however, a person was about to go on holiday and needed a splash of milk for coffee, then it was ideal. Such was the case with
range management, the presenter said. You will perceive grassland states and grazing situations differently depending on your objectives.

The room was quiet and the presentation continued. All around, at small tables in the ranch’s dining room, sat government employees, GCC employees, ecologists, students, and ranchers. While metaphors usually enhance understanding through comparison of two unlike entities to produce additional meaning, the milk bottle metaphor seemed to actually close off meaning. It was half-hearted gesture in the direction of a complex problem, a general way to say that different people want different things. What did people want? Did the rancher at my right and the Range Branch official by the window want the same things? Around what specific issues did their goals converge or conflict? These questions had complex social histories.

The Cariboo-Chilcotin grasslands are, as a government ecologists said, “one of the last relatively intact grasslands in North America… it’s really unique” (2007). He said that in Oregon, “you have wheat fields or weed fields.” He said it is really hard to restore grasslands and it is much easier to conserve, especially with large areas. While early range science emphasized productivity for cattle production, much new grassland ecology – influenced by new ecology and global biodiversity perspectives – emphasizes the importance of ecological protection. The emphasis on ecological protection does not spell an inherent irreconcilable conflict with cattle ranchers. Instead, it results in the proliferation of institutions around “biodiversity ranching,” or “working ranches for conservation.”

Contemporary conservation on working ranches comes in many forms: new government regulations, protected areas, stewardship programs, land trust properties, and the many collaborative initiatives of the Grasslands Conservation Council. There is a careful, fragile peace in the area, as conservationists and ranchers negotiate with one another on an ongoing basis. As I describe in Chapters 3 and 6, ranchers in the middle Fraser so vehemently opposed the no-grazing protected area model that the “working ranches for conservation model” became the framework within which grassland conservation happens. However, there remain many social conflicts as ranchers remain ambivalent about outside interventions and new conservation initiatives. While ranchers might not oppose some of the ideals of scientific conservation, they feel an overall social
change – the idea of grasslands as ecological spaces – that marginalizes their knowledge and priorities.

In this chapter, I have explored conservation and its changing history. Conservation functions through academic-bureaucratic networks, the boundaries of which are ragged and dynamic, always shifting to accommodate new ideas and enroll new entities. I described the diffusion of conservation knowledge and practices over rural landscapes, and the proliferation of new and complex institutions to reflect changing ideas. This history demonstrates that the impetus for conservation arises in different ways at different times. Diverse problems arise: ranchers call for scientific research into grazing and agricultural production; bighorn sheep and cattle interactions (complex and indeterminate) show signs of competition; activists within environmental ministries criticize current government practices; non-governmental environmentalists advocate protected area creation and come into conflict with resource workers. Conservation is not the abstract administration of an external territory. Rational administration is a response to problems, rather than the implementation of a developed plan. It is a way of reorganizing social relationships around scientific principles and management.
Chapter 3

Ranching and Grassland Conservation

Some of the… green people, they pick on ranching a lot. There are not a lot of people championing the values of working landscapes. There’s not that sort of perspective in the media and in our general perspectives.

- Conservationist 2010

Introduction

One warm June day in 2007, I was out with a rancher on his property, driving a road through the grasslands, and I said: “This is spectacular. Every time you look at this are you just amazed at how beautiful it is?” The rancher looked at me sideways and smiled. He said he did not really see the land like that. He said that when he drove the property, he paid more attention to the condition of the grass and the roads, and to what the cows were doing. I later sent him pictures of the ranch that my friend and I had taken and when I saw him next, he pulled one of the photos, crumpled, from the glove compartment. It was, I thought, an artistically composed shot of his truck descending a downhill road through the grasslands. I imagined that he might post it above his desk in the ranch house office, or put it under a magnet on the fridge, but he was using the photo as evidence in his land management. The rancher pointed out the condition of the grass, a place where he had been experimenting with a certain range management technique. Even when the rancher had told me he did not see the grasslands with the same aesthetic as me, I still somehow expected him to see that photo as a scenic shot. My background framed what I was seeing and so, even though I knew this was a working landscape, I had a hard time truly understanding what that meant for the rancher.
I was one of many people visiting the rancher that June day. While we were out driving, there were two other groups on his property: a university group studying birds and government officials conducting a trial on the new range management technique I mentioned above. Increasingly, many conservationists – ecologists, regulators, and environmental advocates from universities, government and non-profit organizations – travel these spaces, seeking to promote ecological protection. Conservationists come to ranchers with their own ideas about grasslands’ meaning and ideal uses. They might admire the landscape’s unique aesthetics or notice indicators of grassland health. To conservationists, grasslands are ecologically rare and important, in need of scientific study and government protection.

Globally, the increasing activity of conservationists has brought them into closer contact with resource producers on working landscapes. Zimmerer notes that, “rapid growth of the interface of conservation with livelihoods and resource use is driven by factors that range from territorial expansion of protected areas to the management emphasis, politics, and discursive strategies that are employed in these broadened conservation efforts” (2006b, 64). In the middle Fraser, conservation’s territorial expansion (through protected areas and a land trust-owned ranch) has resulted in much negotiation with local ranchers. As well, there is an emphasis on conservation-oriented management strategies, driven forward by ecological re-regulation (such as changes to the Forest and Range Practices Act) and new NGO activities (such as an NGO-run ecological monitoring program). All this activity is underlain by a scientific discourse about grassland ecology and biodiversity. How do ranchers perceive all this new environmental activity? How do they experience the conservation networks that seek to enroll the ranching landscape in new ecological and scientific ways?

The dire state of ranching in BC can be summarized by a statistic: the industry has lost more than 30 percent of its herd in the last five years (CBC News 2009). Further, Statistics Canada reports that in 2005, the net farm operating income for BC beef cattle ranching and farming operations was $1,060 annually (Ministry of Agriculture and Lands 2007, 25). This amount is supplemented by off-farm income of $35,485, for a total income of $36,545 (Ibid). While this information might invite some questions about what expenses are considered operating costs and other questions of accounting, it is clear that
most ranches work within a very small operating margin. It is stunning to consider how so many long, difficult days go into producing such a small profit. A basic fear among ranchers is the decline and loss of the industry, ranching livelihoods and ways of life. Ranchers say that a certain number of producers are needed to support veterinary clinics, stockyards, and farm equipment dealers, and to maintain a useable labor pool. Ranchers are concerned that the critical mass will also be affected if land – their most basic asset – is removed from useable rangelands through large-scale re-regulation. As a result, ranchers are concerned about protected area creation, land trust purchases of ranches, and Treaty settlement (Barnett 2003; Interviews 2007).

But these concerns about the industry also relate to how ranchers relate to other conservation measures. In my thesis, I am interested in how ecological ideas develop and reshape a rural landscape. In this chapter, I show that rancher’s concerns about conservation fall within a broader uncertainty about the future of the industry. This fear plays out in different ways at different times, but ranchers often display frustration and ambivalence toward new conservation measures. I believe that such displays reveal a deeper uncertainty about recent social change. Conservation and bureaucratic initiatives are increasing in grasslands, linked together by a scientific, planning-based approach to grasslands. More and more aspects of rural life are routed through bureaucratic circuits and a whole realm of knowledge and practices is developing away from the practicalities of the ranch. Over time, all of these practices change rural landscapes like the middle Fraser, often in ways their participants do not intend. Thus, even if they agree with an initiative’s stated objectives, ranchers might feel threatened because conservation has strong academic-bureaucratic networks. Conservation is changing the social meaning of the landscape in ways outside ranchers’ control.

The chapter proceeds in three parts. First, I describe early ranching history and the development of the frontier ideology and cowboy culture, which celebrate independence, hardiness, masculinity, and an escape from the dull strictures of industrial life. These constructs are key context for understanding how ranchers oppose outside and

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28 The challenge of finding skilled employees was a point raised by many interviewees. The manager of the Alkali Lake Ranch, Bronc Twan says that, “the real problem with ranching today, from a manager’s point of view, is labour. We have several good long-time older employees but it is all but impossible to hire young people... Our knowledgeable workforce is aging, and there will be no one to replace them” (Twan 2006).
bureaucratic interventions. I also note how frontier mythology has excluded other social experiences of the landscape and conservation risks perpetuating these exclusions. Second, I explore how ranchers relate to the scientific knowledge about grasslands that is developing away from the practicalities of life on the ranch. Ranchers express dissatisfaction with conservationists who just “drop in” (particularly to make demands) or do not know local context. They feel that conservationists privilege scientific knowledge above their own local, more experiential understandings and ideas. Third, I describe ranchers’ perspectives on new conservation regulations and programs. Ranchers experience conservation as part of a larger bureaucratic apparatus that is transforming their work and causing additional strain on already straightened circumstances; they do not face each conservation encounter singly, but as representative of a whole set of processes that they feel are increasingly outside their control. Still, I suggest in the conclusions, in an era of socio-economic upheaval, there are new opportunities for collaboration and partnership.

The “Wild West”: Frontier Mythology and Cowboy Culture

American historian Frederick Jackson Turner used the term “frontier” to describe the advancing front line of settlement into the American wilderness (1962). Turner believed that the hard fought, aggressive struggle in wild landscapes helped form a unique American character. In the middle Fraser, starting in the 1860s, similar ideas about a hard-won battle over wilderness developed and remain pervasive. As well, aspects of cowboy culture were imported along with US cattle ranching practices. In the late nineteenth century, cowboying was a held up along with US cattle ranching practices. In the late nineteenth century, cowboying was a held up along with US cattle ranching practices. In the late nineteenth century, cowboying was a held up along with US cattle ranching practices. In the late nineteenth century, cowboying was a held up along with US cattle ranching practices. In the late nineteenth century, cowboying was a held up along with US cattle ranching practices. 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the frontier and cowboy constructs. These cultural characteristics influence contemporary perspectives on conservation. Furthermore, ecologists who encounter the Wild West culture at face value risk reproducing its critical exclusions; it is for this reason that I highlight them here.

The Middle Fraser Frontier

American entrepreneurs brought cattle from Oregon to the middle Fraser to feed miners in the gold rush; these drives peaked in 1862 when 4,343 head of cattle were driven across the border and were still strong until around 1866 (Hudson et al 1974; Thomas 1976, 29). As a result of the gold rush, “cattle ranches were established at the mile houses along the Cariboo road and more widely” (Hudson et al 1974, 5). After the gold rush, the ranching industry restructured to provide beef for growing markets in Victoria and Vancouver (Bawtree 2005; Hudson et al 1974). The land was consolidated into the large ranches that characterize the area today (Mather 2006a; Thomas 1976). The Alkali Lake Ranch, one of the oldest ranches in BC, can trace its origin to the early 1860s (Twan 2006), and the famous Gang Ranch was established a few years later, when the Harper brothers purchased a large amount of land at the junction of the Chilcotin and Fraser Rivers (Kind 2006; Mather 2006a).

The landscape was a physical frontier, a landscape too dry to support many forms of agricultural settlement. From the 1860s to the 1920s, ranching in the region was a late, extending front edge of settlement in southern BC. Ranching enabled settlement of areas that would not support more intensive agriculture and in this sense the landscape was a ranching-specific frontier, extending settlement into formerly unusable areas (Hudson et al 1974; Tisdale et al 1954). Life on the frontier was filled with physical challenge, and local histories glorify personal hardiness (e.g. Goodchild 1955; Lee 1960; Marriott 1994).\(^{30}\) A personal struggle against an unforgiving landscape is an important part of the

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\(^{30}\) Perhaps, most famously, there is Norman Lee, an Englishman rancher who, in 1898, sought to drive 1000 head of cattle overland to the Klondike gold fields from the Cariboo (Lee 1960). A 1955 *Vancouver Sun* article reported that Cariboo cowboy Dave Hill walked in from Calgary along the CPR survey line, subsisting on squirrel and porcupine (Goodchild 1955). Harry Marriott, employee at the Gang Ranch and founder of the OK Ranch at Big Bar writes that, in a “back and beyond situation” a “large amount of toughness was the keynote of survival” (1994, 46).
frontier construct in the middle Fraser. The striking, semi-arid grasslands landscapes still provide a sense of this earlier wildness; they are difficult to ranch. Thus, in local culture, a productive place in the landscape is something to be earned through hard work, certain forms of productive labour.

Second, the frontier culture of the middle Fraser reflects its unique history as a site of American ranching influence, a site of “wild west” and “cowboy” culture. The Hudson’s Bay Company sought to organize cattle markets around Fort Kamloops, but the circumstances in the middle Fraser were different (Hudson et al 1974; Thomas 1976). The presence of a British colonial trading regime was weaker and the Texan cattle ranching culture, imported via the gold rush era cattle drives of the 1860s, was much stronger in the region. McLean notes that “the drovers were mostly American who, for the most part, did not settle in the country. Still, they influenced stock raising and handling techniques as well as ranching practices” (1982, 132). Jerome and Thaddeus Harper – Confederate sympathizers who later established the Gang Ranch – were two of most successful US cattlemen in the BC context, famous during this early period for their long-distance drives (Thomas 1976). While polo games were more common around Kamloops ranches, there were rodeos and races in the middle Fraser (Mather 2006a). By the 1920s, the cattle economy had changed from a frontier to a solidified industry; the frontier had closed (Kerr 1991).

Texan “cowboy culture” was reproduced in the middle Fraser region, particularly around Williams Lake. Scholars note that the cowboy myth is both symbolic and productive of certain ideals: the escape from the pale, wasting routines of industrial modernity and the reassertion of masculinity. The cowboy myth became culturally important in Western North America in the late 19th century (Moore 2009). “As the frontier became more settled,” Jacqueline Moore writes, “the cowboy of old had become more of a public spectacle than ideal worker” (2009, 204). Kathryn Morse describes

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31 The Harper Brothers financed a pirate ship, which was apprehended off the California coast (Mather 2006a).
32 Kerr writes that “gone were the days when entry to the cattle industry was accomplished by riding out and locating a favorable stand of bunch-grass which could then be taken out as a pre-emption… The system of land tenure, leasing procedures and water rights were formalized and ranch improvements could be made on the basis of assured tenancy” (1991, 78).
Theodore Roosevelt’s cowboying exploits as an example of what he called “the Strenuous Life,” and suggests that “these forms of bodily engagement with a real (or imagined) world offered a remedy for the unsatisfying existence of industrial life” (2003, 121). Describing late nineteenth century commentators’ celebration of a Calgary Stampede cowboy, Mary-Ellen Kelm writes: “Office work, mechanization, the agitating hubbub of cities, the growing place of women in political, social, and economic life – all, it seemed to commentators, conspired to take the muscularity out of manhood. But beyond modernity’s reach, there were spaces where manhood could be restored” (2009, 716). In North America, these spaces were in the West (Ibid). Cowboy myths and practices laid claim to an imagined pre-industrial past of manliness, hard work, and freedom.

Much local culture suggests that the region still derives its sense of uniqueness by association with this frontier and cowboy culture. Elizabeth Furniss (1999) describes the social importance and reproduction of frontier mythology in public spectacles such as the Stampede, the museum, and local stories. Gas stations and book stores in Williams Lake, 100 Mile House, and Clinton sell local histories describing pioneer days; on the covers are men on horseback driving herds of cattle on open range. These books celebrate the distinctive lives that certain people forged in the challenging landscapes of the interior. Self-made cattle barons and cowboys are iconic (Kind 2006; Marriott 1994; Mather 2006a).

On dirt roads, two hours south of town and its Stampede grounds, lie the ranches of the middle Fraser. What connections can be made between Wild West culture and working lives? “The only people who wear cowboy boots are logging truck drivers,” one interviewee from a ranching family said, only partly joking. He wanted to create a distinction between the commercial, tourist-driven spectacle of cowboy culture and working life on the ranch, a more authentic frontier existence. The diffusion of Wild West culture and individuals’ relationship to it is difficult to quantify and assess. However, I felt that many middle Fraser locals make connections between their lives and those of the pioneers that established ranching in the area in the 1860s onwards. Currently, most people are relative newcomers to the area; the ranches have not been
passed down through generations. Still, two ranchers gave me copies of local history books that included information about their properties, and another showed me photos of the property taken in the early twentieth century; the past uses and culture of this landscape were relevant to them. I sensed that they liked to be a part of this historic occupation in an unusual, dramatic, challenging, and out-of-the-way landscape. They were so conscientious in sharing their ranches’ past that I understood that they saw themselves as stewards of places with history.

Regional frontier and Western mythology provide some context for understanding how ranchers relate to conservation. In the frontier culture of hard work and initiation, a rightful place in the landscape is something to be earned. This relates closely to ranchers’ emphasis on tacit knowledge and the skepticism some hold toward “outsiders” and new scientific, bureaucratic knowledge. Local culture celebrates individualism, resulting in antipathy to government regulation and intervention; this relates to how some ranchers perceive new conservation initiatives on their properties or in their “neighbourhood.” However, I wish first to describe how the frontier mythology is a partial and problematic reflection of how the middle Fraser has been used and understood. It frames the region as a rough and empty landscape to be conquered by the labour of white males, marginalizing other experiences and land uses. These exclusions have the potential to be reproduced and exacerbated by current social reorganizations around conservation.

**The Frontier and Social Exclusion**

Once, in his kitchen, a rancher asked me if I had met a particular woman, another rancher’s wife. He said me “behind every rancher is a strong woman,” and then his wife, who was standing nearby, snorted. The rancher said, “What?” and leaned around me to look at her.

“‘Behind every rancher is a strong woman,’” his wife said, imitating him in a deep voice, with a bit of a drawl.

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33 One exception is the Koster family, who now run the Canoe Creek Cattle Ranch, are descended from settlers who arrived in the mid-1800s (Twan 2006).
“What – you want to do the interview?” the rancher said. “Why don’t you come over here and do the interview?” They both laughed.

I liked how the woman subverted a narrative that, it seemed to me, the rancher didn’t even quite realize he was telling. I also liked how he accepted the criticism good-naturedly. But in all, this small experience calls attention to the particular gendered nature of the hardworking ranching frontier. Marriott writes that people in the middle Fraser are the kind that “don’t care a damn what you are or how much you’ve got – just so long as they figure you had the make-up of a real man” (Marriott 1994, 10). And what if you are not a man? This short narrative calls attention to the shortcoming of the “self-made man” assumption within the rugged individualism celebrated in ranching culture; of course, ranches are built on the labour of many different people. With his statement, the rancher sought to recognize this fact but instead produced a hierarchy (that his wife then challenged), where the woman is “behind” the man, stalwart and silent.

How do women participate in the economy of a ranch, historically and currently? How do they perceive the relationship of ranching to its environment? What do they feel about current conservation initiatives? How are they impacted by the industry’s recent economic hardships? Reed and Christie note that scholars in environmental geography have explored the gender differentiated impacts of economic and environmental change on women in the global South, but have yet to turn focused attention to similar issues in the North (2008). I realize that, in trying to come to grips with broader conservation-ranching relationships, I have not explored the gendered nature of changes in ranching. The following summer I spent some time with this rancher’s wife, out walking on the property and into the forest where they were burning some slash, but I never conducted a formal interview with her. I unconsciously subscribed to the masculinist assumptions of ranching culture, and reproduced them in this study. As new conservation initiatives intersect with changing ranching lives, how are women involved and impacted? To what extent do conservation and planning initiatives on ranches reflect women’s values and perspectives? These are important questions that, at this point, I feel I can raise but unfortunately not answer.34

34 A study on women’s labour on BC ranches and the impacts of recent economic changes on their lives and livelihoods would be a very timely and useful intervention.
And there is another critical silence in the frontier narratives I’ve described. They suggest that a rightful place in the landscape is to be earned through hard work, and land claimed through a specific type of transformative labour. However, because of complex histories and cultural assumptions, the long term presence and ongoing labours of Aboriginal people do not count in the same way toward earning a rightful place in the ranching landscape. Even ranching activities such as cowboying, are understood differently when done by Aboriginal peoples. The role of the frontier discourse in perpetuating colonial injustices is explored in-depth by Elizabeth Furniss in her 1999 book on Williams Lake and environs. I describe these issues in-depth in Chapter 4 and argue that when conservation takes the property regime and cultural assumptions of ranching country for granted, it risks sidelining Aboriginal rights and perspectives.

**Grassland Knowledge**

In the frontier mythology of the middle Fraser, people become properly acquainted with the landscape and gain the trust of local people through hard work over years. There are many stories about difficult horses to be broken, and long, difficult working trips in the mountains (Choate 1993; Lee 1960). In his autobiography *Cariboo Cowboy*, Harry Marriott describes how his first job at the Gang was hauling 6000 pounds of gear in from Clinton on bad roads (1994). He broke horses, spent a winter out cutting timber, and rolled dead cattle into a gulley before he was given responsibility for the Crow’s Bar pasture (Ibid). These stories share an ideology of initiation; these individuals tell stories of succeeding in the face of risk and adversity, of “learning the ropes” the hard way. A culture of initiation is particularly evident in how locals described upper class British newcomers to early BC ranching; these men were often called “Mud Pups,” a term that “initially expressed the disdain of those who had paid, and continued to pay, their own way through life” (2006, 145). Eventually, though, through hard work, these gentlemen – with Oxford accents, riding britches, and hunting boots – could become, as Harry Marriott put it, “range broke” (1994, 38). They had to learn the region’s difficult livelihood practices.
In a ranching country, belonging needs to be earned. As a result, people who just “drop in” – conservationists and regulators who experience the landscape from a recreational or scientific perspective – may be seen as outsiders. The culture of initiation does not preclude conservationists, but demands ongoing commitment. For example, a rancher told me that local people respected an ecologist who lived locally, worked a great deal in the area, and can ride a horse (2007). The culture of initiation suggests that knowledge, too, is something to be earned through hands-on experience in the place. An academic told me a story of how a researcher lost credibility when he went to talk to ranchers (not in the middle Fraser) and mentioned that an area was “black-tailed deer habitat,” when there were not any such animals in the area (2007). The man clearly did not know the landscape. “Little things can get you,” this interviewee said. He noted that a rural community was different from an urban one, saying “you’ve got to earn your credentials.”

James Scott uses the Greek word “metis” to describe the kind of knowledge “embedded in local experience” and contrasts it with the “more general, abstract knowledge deployed by the state and its technical agencies” (1998, 311). Ranchers I interviewed often made similar distinctions to reassert the primacy of their own experiential knowledge over the technical experts of scientists and officials. When talking about the ecology of his range, one rancher said, “You don’t get that knowledge overnight. You can’t read it in a book” (2007). Ranchers value place-based knowledge through long-term daily engagement with grasslands. Another rancher asserted the importance of place-based knowledge when he said that: “government often hires range experts from other countries. Nothing is based on the BC ecology… Ranchers get into trouble when they try to apply ranching strategies from elsewhere” (2006). In a later interview, this rancher said, “You can’t transfer one [grazing] plan to another place” (2007). In his view, ranching knowledge was clearly best developed in situ, in an ongoing relationship with the animals and the land. Ranchers often assert the primacy of local, earned, “tacit” knowledge is often reasserted in opposition to developing academic-bureaucratic expertise on grasslands.

Moreover, some ranchers are offended by the idea that conservation is an outside idea, something that has to be brought to them by outsiders. Ranchers have a long history
of environmental concern. Conservationist and UBC Agronomy professor Dr. V. C. Brink often noted that it was ranchers who originally brought the issue of overgrazing to government attention in the 1930s (Paille 2000). A woman with a ranching background said: “I remember being out riding [with a rancher, her friend] and bringing up a conservation point... He rejected the idea that conservation is different from something that he did every day” (2010). She said that the rancher operated within an “ethic of stewardship” and he often spoke of the ranch as his sons’ future. The ranchers I interviewed were proud of their knowledge and the way they managed grasslands. “You have to be a bit of an artist in how you manage the land,” one rancher said. “It’s a unique mix of land, animals, and people. You have to think about things and fit it together, and learn from different experiences” (Interview 2007).

Academic-Bureaucratic Networks: Expertise

In the ranching community there is a strong ethics of anti-elitism around range knowledge. This was seen internationally when, in 1945, the North American Society for Range Management was formed to create a professionalized, standardized field (Pechanec 1948; Wasser et al 1987, 43). Members stipulated immediately that the Society should accept “as a full member anyone who had the inclination and the dues” (Harris 1981, 124). There was a strong anti-elitist sentiment among North American range managers, who strongly resisted – for example – the idea of professional accreditation such as was established in American forestry in 1934 (Ibid). American and Canadian ranchers were skeptical about the development of a field of expertise, of knowledge developing away from the practicalities of ranch life.

This trend is still evident in the recent history of academic-bureaucratic range networks. Many interviewees – academics, conservationists, and ranchers – noted in government range management a shift from local, rural knowledge toward academic, scientific knowledge. Often within the same sentence, they described the changing allegiances of government officials. They said officials were scientifically educated and biased against ranching, resulting in antagonism or at least mistrust. As I described in Chapter 2, each stage of state conservation and intervention produces a new body of
knowledge, and enrolls new people – new bureaucratic networks and linkages are created. Over time, more and more of this knowledge develops in universities and government departments.

One interviewee from a ranching family said that over the last 25 years, range management staff had become more academic; he felt that these people knew far less than earlier range managers, who were often local (2008). Similarly, a senior employee from the Range Branch said officials used to know the range tenure holders more closely (2007). An academic in agriculture agreed, but believed that this trend probably improved the rigor of range regulation, as early range agrologists were “too close” and “overly sympathetic” to ranchers (2007). A senior government employee in the federal Ministry of Environment with an MSc in conservation biology, too, described the decline of what he called, “belt buckle biologists,” the rural government officials who – according to this interviewee – drove big trucks, went hunting on weekends, knew the range leaseholders personally, and did not enforce environmental standards (2007). He saw a shift toward urban, highly educated, scientific bureaucrats like himself, a new demographic “more into backpacking and sailing than hunting and fishing” (2007).

One interviewee, a woman with a ranching background who now works in conservation and policy, perceived a trend away from grounded rural knowledge within government. She described it with reference to the decline of agricultural extension within provincial and federal ministries of agriculture. She said that, in times past, ministry officials “had to get out on the land, with the ranchers… So that built a whole set of relationships between government and the producer. It’s seen as a bit of the glory days. It had a real practical feel” (2010). The word “practical” suggests a hands-on, in situ approach to range regulation, with less of a distinction between abstract regulation and the everyday operations of a ranch. This woman perceived a clear shift away from these grounded relationships. “Now it’s more ’we need to figure out a scientific basis to support policy and decision-making,’” she said. “They retain those experts who don’t actually have to interface with producers. They’re doing due diligence, they’re within their mandate” (2010). The words “due diligence” and “mandate” suggest bureaucratic distance, a new ordering of priorities within a regulatory frame of reference.
Such anecdotes were so widespread as to feel commonsensical. They came up without my asking, and when I did ask, people lit up and spoke quickly; they seemed to feel instant recognition. In interviewees of different backgrounds, there was a clear sense of a growing culture of expertise around rangeland knowledge. In his study of Pacific coast forestry, Richard Rajala describes how, under the sway of timber capital, the UBC Department of Forestry was restructured to produce technical knowledge and employable graduates (1998). As a new, professionalized middle class, university students come to know the forest in a way that workers in the periphery never will. The result is what Mitchell (2002) calls the “rule of experts,” where local and specific knowledge becomes undermined and replaced by centralized, technical expertise. Such a trend was widely identified among interviewees with respect to grassland conservation and provincial regulation and management.

The professionalization of the government range manager paralleled the development of a more scientific approach within the university itself. An academic in the field of Agricultural Science said that at UBC, there were many more “pure science people now” (2007). He said, “You can’t find somebody at UBC who’s got their boots muddy” (2007). In this interviewee’s perspective, people were more interested in technical aspects of ecology and animal science; there was less of a holistic, field-oriented approach to range management. Furthermore, many people involved in range management and monitoring do not have degrees in Agriculture at all. Among government employees and consultants I interviewed, many had Master’s degrees in Forest and Wildlife Management, Conservation Biology, or Biology. Some had more planning-oriented degrees, such as a Master’s in Resource Planning or Environmental Studies.

As I described in Chapter 2, grassland conservation has developed in academic-bureaucratic networks that emphasize science and rational planning. New ecological ideas travel and influence state practice. These networks are extending practices of rationalization over a rural landscape. All this new knowledge about grasslands is slowly changing the landscape’s social meaning, and ranchers fear they are losing control. I found this perspective eloquently expressed by an interviewee with a background in both conservation and ranching. This person said that all the new grassland ecosystem
mapping (such as projects undertaken by the Grasslands Conservation Council; see GCC 2004) “can be scary from a ranching perspective” (2010). “All of a sudden it’s on a map and it’s given this new life and credibility, so a lot of people are really threatened by that… Then they may have to change management. It’s expensive.” This interviewee tied the “remapping” of grasslands back down to the bottom line of ranching business. However, it is the phrase “new life and credibility” that to me suggests broader social changes that are “threatening” to ranchers. Ideas have currency in networks outside the ranchers’ control.

A Gap between Ranching and Ecological Knowledge

In Chapter 2, I described a field monitoring workshop at Big Bar, where ecologists were doing a trial run of a new ecological monitoring manual for ranchers. In the initial presentation, an ecologist said that he and the manual co-authors had removed all the science from the manual so that ranchers could use it; the science was in the background of the manual, but the book was tailored for practical use. He also said, “You [the ranchers] have trained your eyes to look at the cows. We are going to train you to look at the grass.” I am sure that, if this ecologist re-read here what he had said, he would realize that of course ranchers are constantly studying the condition of the grass. I do not wish to make too much of what was likely a slip-up in an otherwise careful presentation. Still, through these statements, the ecologist produced a divide between what he knew and what ranchers knew. This made me reflect on the larger structure and meaning of the day: the ecologists were introducing a monitoring manual, prescribing practices for ecological range assessment. The whole didactic nature of the day suggested a one-way flow of information from ecologists to ranchers (and other attendees), an introduction of science.

On that field monitoring day, the hosting rancher knew a great deal about nesting habitat on his property. This reminded me of what another member of a ranching family (outside the middle Fraser) had told me; as early as the 1940s, his family was protecting important nesting trees on their properties from logging. The differences between what ranchers know and what ecologists know is by no means clear cut. A conservationist
said: “Many [ranchers] are very progressive and are trying to accommodate other values. If you ask ranchers, they know the birds and wildlife… they just don’t like being told what to do” (2007). Many ranchers have ecological knowledge. Furthermore, ranchers have long integrated ecological knowledge into their ranching practices; a government ecologist I interviewed told me that he had seen some “really good practices,” that “on some ranches you can find grasslands that look almost pristine” (2007). Still, the monitoring workshop I described, conservationists proceeded as if ecological knowledge is an introduction to the ranching landscape when, instead, this is a re-routing of knowledge through academic-bureaucratic networks.

This is a way of re-routing environmental knowledge through bureaucratic circuits and rationalized practices. Ranchers are not “training their eyes to look at the grass,” as most likely study the grass in some way on most days. They are instead learning quantification methods for certain indicators of grassland health. For example, ranchers measure and quantify percent cover of specific native species and the microbiotic soil crust, plant litter, non-native species. The range monitoring manual is a useful tool, and will fit differently into different ranchers’ understandings of their range and management practices. It is a way, too, of integrating ranchers into state scientific practice, the creation of “environmental subjects” (Agrawal 2005, chap. 6). It is a clear extension of scientific and environmental ideas into the rancher’s knowledge and experience of grasslands.

The differentiation between scientific, ecological knowledge and ranchers’ knowledge (which performed, not pre-given) works at several levels to produce a discursive gap between current use and more ideal, ecological uses. Ecological knowledge is treated as a realm outside ranchers’ knowledge. In 2003, the Province introduced a new program of results-based management. While all ranchers using Crown range must submit a range plan, under this program ranchers now have the option of submitting a Range Stewardship Plan (MOFR 2004). A rancher submitting a Stewardship Plan would need to set aside areas of range land for conservation purposes, write plant community descriptions, establish monitoring sites in different biogeoclimatic zones and monitor them every five years, and other activities (Ibid; Interviews 2007).
A land trust employee said that the level of scientific knowledge required by these assessments would be difficult for ranchers. “The level of precision and accuracy you need in these assessments… would be a challenge,” he said (2007). An ecologist said, “the targets aren’t achievable, for the most part” (2007). He said that the only place where these standards were being met was at the Empire Valley Ranch in the Churn Creek Protected Area. Still, what the range stewardship plan regulation is discursively significant. It creates a gap, a space between present ranching knowledge and a more scientific, ecological, possibly future approach. It constructs a sense of present lack, suggesting limitations in ranchers’ understandings.

Ranch Regulation

One rancher believed that environmental groups, via government, could make range regulations so onerous that ranchers could no longer use the land at all. This process of regulating ranchers off public land was already underway in the western United States on Bureau of Land Management land (2007). He said:

Environmental groups or advocates of no domestic stock grazing – let’s put it that way, from wherever they come – push state and federal legislation to make terms and conditions onerous enough that in the end, the tenure holder says, ‘I can’t use this anymore.’ That takes them off the hook, you see. They can say, ‘We didn’t take the permit away. There’s no compensation here. You made the decision.’ (2007).

In this rancher’s view, new regulation could be a surreptitious way of converting ranch lands to conservation purposes. This quote suggests a coalition between environmental groups and government. It also references an increasing regulatory burden. Finally, the quote reveals how the rancher mistrusts regulatory processes, believing them to have effects beyond their stated intentions and be biased against ranchers.
In Chapter 2, I described how new scientific, ecological ideas travelled and influenced state practice. There are new range management and reporting requirements under the Forest and Range Practices Act, impacted by Species at Risk legislation. But how do ranchers experience these re-regulations? Here I argue that new conservation regulations and initiatives must be understood in the context of ranchers’ proliferating administrative responsibilities in an era of economic vulnerability. Furthermore, as I described in Chapter 2, conservation often works through bureaucratic processes (e.g. the Commission on Resources and Environment) and results in social reorganization. Ranchers are skeptical of such processes, having felt them to be biased against ranchers’ knowledge and interests.

**Economic Vulnerability and Increasing Regulations**

Since the 1970s, the BC cattle industry has faced repeated economic crises. Production costs have increased while returns have fallen. A 1983 report commissioned by the Province suggested that the ranching industry is no longer profitable and grazing lands should be reallocated toward more productive purposes (Canadian Press 1983). In 2003, the BSE crisis and US import ban caused the price for Canadian steers to plummet from $1.34 per pound to $0.95 (CBC News 2006; Kane 2007). One middle Fraser rancher told me that, since 2003, he estimated that his ranch “ate” $250,000 because of the crisis (Interview 2007). Other crises included a tuberculosis scare in 2007 and a drought in the BC interior in 2008 (Canadian Press 2007; Shore 2008). In general, ranchers face a cost-price squeeze.

Throughout these decades of economic vulnerability ranchers have sought to control and restructure the industry toward provincial, value-added production and away from the volatile North American markets. Ranchers are trying to redevelop marketing strategies to encourage consumers to buy BC beef. One rancher said, “we need to spend more time thinking about how we sell beef” (Interview 2007). At a GCC conference, a participant said, “BC could take all the beef we can produce and more” (2007). Ranchers

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35 A representative of the Canadian Cattlemen's Association said that “the cattle business cycle was just coming out of a four-year drought period in 2003, so 2004 and 2005 should have been the good years… But the good times never came” (Shore 2008).
have tried to develop value chains to support local secondary and tertiary parts of the supply chain. In particular, they want to develop local abattoirs (there are 34 in BC) and keep them in business with constant supplies (Government of BC 2009a; Interview 2007; Vancouver Sun 1977). This restructuring is only beginning to occur.\textsuperscript{36}

Still, it is in this context of economic vulnerability that ranchers’ opposition to some environmental measures comes into sharp relief. A report by a sub-committee of the BCCA notes that, “modern day ranchers operate under a complicated regulatory regime. Federal and provincial legislation, regulation, policy, and procedure dictates much of what the rancher may do, both on the Crown range and private land” (Barnett 2003, 6). A recent Vancouver Sun article on the state of BC’s ranching industry noted that ranchers are “just trying to negotiate a maze of regulations and authorities that they never could have imagined 30 years ago, let alone 150 years ago when the first cattle runs came to BC” (Shore 2008).

Ranchers feel they face increasing requirements for environmental stewardship, but often without increasing support. As one rancher put it: “seemingly endless new rules and regulations are heaping added burdens on an industry that has suffered greatly over the past few years. All the new regulations add cost and responsibility that are greatest to the rancher” (Twan 2006). Environmental improvements such as additional fencing, monitoring, reporting, and set-aside lands all cost money. Ranchers often feel that they are being asked, as one told me, to “produce more and more for less and less” (2007). Another rancher told me that range regulations have become “more onerous” (2007). “Ranchers don’t like paper,” a rancher told me (2007). He said people become ranchers because they’re interested in “animals and machines.” By paper, this man was referring to the whole, growing realm of regulation and accounting, of which new conservation initiatives were a part.

Ranchers experience conservation as part of a larger bureaucratic apparatus that is transforming their work and causing additional strain on already straightened livelihoods. A rancher told me the reporting he had to do each year. It included: federal and provincial

\textsuperscript{36} For example, a 2010 news story reported that the Holmes family, operators of the Empire Valley Ranch in the Churn Creek Protected Area, has now turned away from the “Alberta packers commodity market” and toward grass fed beef, slaughtered locally and marketed directly to consumers or select buyers (Farrar 2010).
income tax, the Stats Canada farm survey (which is supposed to be random but he said they get it every year), the National ID program, Canadian Agricultural Income Stabilization (CAIS) applications, the Environmental Farm Plan,\textsuperscript{37} and the annual reporting on his Range Use Plan. A list like this does not capture the complex multiplicity of tasks associated with all this reporting: the registering of cattle tags, the building of new infrastructure, and the immense book-keeping tasks associated with minutely tracking all income and expenses. “Governments keep adding things that need to be done,” said this rancher. Furthermore, this list did not include all of the administrative work that the rancher had through his involvement in different ranching and conservation organizations. This is the “paper” a rancher described that was taking valuable and appreciated time away from “animals and machines.”

And even when the paperwork is for programs intended to support ranchers, it is often overly onerous and may not be a guaranteed source of income. I asked a conservationist (who works closely with many ranchers) if there were programs to support conservation on working ranches. “It’s a whole lot of paperwork and a whole lot of headaches,” the conservationist said. “And most ranchers don’t have the time or the inclination for any more paperwork, filling out proposals and applications. And they’re not very streamlined processes for the most part. You work hard to get that money when you do get it… There’s no guarantee” (2007).

\textit{Mistrust of Conservation and Bureaucratic Process}

“What do you think of David Suzuki?” one rancher asked me when I was sitting on a barstool in his kitchen. “Maybe we should just give him all the ranches and let him look after the grasslands.” This was the last in a series of provocations on his part. He was trying to goad me in order to find out my position. When I said his ranch was beautiful, he said, “You want it? You can have it. It’s not so nice when the logging trucks go roaring past.” When I mentioned another rancher, he said, “You think that [name] isn’t digging up native archaeological sites all over the place?” I eventually told the

\textsuperscript{37} In 2003, federal and provincial agriculture departments launched the “Environmental Farm Plan” program to “complement and enhance the current environmental stewardship practices of British Columbian producers” (BCAC 2008).
rancher my honest opinion, which was that I thought Suzuki overstretched his expertise. I felt that Suzuki did not pay due respect to the complexities of the issues about which he spoke. “Smart girl,” the rancher said. “But David Suzuki’s not so bad.” After that, he spoke openly about his business and his perspective on conservation.

I think that this conversation illustrates a rancher’s underlying skepticism about outsiders, urbanites, and conservationists. He wanted to assess me and my position. In this exchange, I saw a mistrust that comes after years of working with people in a politicized environment. When asked whether he thought there could be a role for conservationists in range management, another rancher said, “There could be, I guess. But there’s no trust there” (2007). Another rancher said of his meeting with a conservationist, “We have exactly the same goals. We want the same thing. It just kind of missed the mark on cooperation… We both want more grass… We both have the same goals but the guards are up” (2007). Many ranchers I interviewed distrusted many of the processes associated with grassland politics. I believe that this mistrust has three causes. From my interviews, it appears that ranchers believe that: (1) political processes were not as they initially appeared; (2) agreements were eroded over time with negative impacts on ranchers, and; (3) conservationists only work with ranchers because they are current land and tenure holders, but would prefer no-grazing protected areas.

Rather than having faith in conservation agreements, ranchers often believe that the information that they share is not neutral and that agreements are eroded over time. A rancher who went to negotiations at CORE said: “the biggest thing I got was skepticism, being involved in these processes. The processes have an agenda… whatever information you gave was turned around and used against you later” (2007). This rancher did not believe in the base assumption of public participation processes: that knowledge is just facts to be shared openly among stakeholders for the best possible outcome. The quote suggests that the rancher did not see information about his ranch as neutral.

In Chapter 2, I described how debates over wild ungulate and cattle competition at the Gang Ranch resulted in the creation of the Junction Sheep Range Wildlife Reserve. Ranchers told me that initially, the land at Junction was supposed to be returned to the ranch after ten years, but that never happened (Interviews 2006, 2007). A rancher said that he thought the ranchers got “snookered” (2007). He said: “They didn’t give us any
credit for wanting to do the right thing, too, and trying to cooperate with them. They saw us strictly as adversaries” (2007). One ecologist agreed, saying, “Ranchers felt betrayed” (2007). “Junction deserves to be a park,” the ecologist said, “but it should have been a negotiated settlement” (2007). The rancher perceived an anti-ranching bias in government process and believed that government did not seek open collaboration with ranchers. Ranchers do not perceive only the individual conservationists and officials who visit, but also a whole bureaucratic history and infrastructure behind them.

I also heard about how ranchers bought in to certain agreements, only to find the terms of the agreement shifting over time. Ranchers told me about an old-time rancher who sold his land to a conservation organization under the condition that he could work the ranch until his retirement. Then, enabled by a clause in the sale agreement that the rancher had not noticed, after five years the environmental organization raised the lease. The rancher could no longer afford to work the property and “ended up in a trailer park” (2007). This story was widespread, though told differently by different people. I heard several other examples of initial agreements that changed over time, and of costs that eventually far outweighed benefits. One rancher told me about how the Agricultural Land Reserve (ALR) was created with pillars of farm support to counterbalance the lost land values associated with “locking land up” (preventing subdivision) in the ALR. Then, over time, the farm support all changed and was lost, but the land was still in the ALR. Ranchers have felt cheated in the past, and are skeptical of deal-making.

Finally, ranchers are concerned that conservationists are not ideologically committed to the “working ranch” model of conservation. “Some of the... green people, they pick on ranching a lot,” said a woman with a ranching background. “There are not a lot of people championing the values of working landscapes. There’s not that sort of perspective in the media and in our general perspectives” (2010). Several ranchers I interviewed believed that conservationists want another protected area in the middle Fraser, and are looking for additional rangelands to make into no-grazing reserves. A conservationist (outside government) told me that ranchers “are fine with conservation but have trouble with parks” (2007). Ranchers believe that conservationists are working with them only out of necessity, because their properties are ecologically valuable, but would rather that they were gone altogether. A rancher told me:
So many of the grasslands they’re worried about are in private hands. ‘We’re going to cooperate with these guys because we have to because they own the land.’ But I don’t think they’re all concerned with my well-being, you know? It’s just that I happen to be in the way to where they want to get. The end goal… and we’re really just a bit of an intrusion into it. And again, that’s a real generalization and I know that not all people think that. There are people… that believe you can have both. But a lot of them really don’t. (2007).

Although the “working ranches for conservation” model is an accepted compromise, many ranchers believe that conservationists are unhappy with current environmental protection in the middle Fraser. Such skepticism undermines their willingness to engage with conservationists. As I describe in Chapter 6, this is likely true for at least some conservationists. One conservationist said: “I don’t think anyone’s happy with what we’ve got at Churn. I think we’d all like more protection, better protection” (2007).

**Conclusions**

A rancher said that conservationists could turn out to be “allies or our worst nightmares” (2006). There is a great deal of uncertainty about how conservation will proceed on BC’s interior grasslands, and how it will impact ranchers. On the coast, environmentalists might be derogatorily called “tree-huggers” by forestry workers. In the interior grasslands, I heard two ranchers jokingly use the term “leaf lickers” to describe environmentalists. I knew that these ranchers held productive, respectful working relationships with conservationists. And yet, underneath the humor, there is a deep historically-rooted ambivalence about conservationists and the work that they do. Ranchers are often skeptical about grassland conservation, believing that conservation is biased against resource producers. As conservation work on ranches and grasslands intensifies – both by government and other conservation interests – this ambivalence deserves attention.
I argued that ranchers’ financial vulnerability is one reason for their opposition to new conservation initiatives. This opposition is strongest regarding new environmental regulations that cost time and money, but a general wariness extends towards new conservation activities and regulations. Ranchers also perceive that conservationists value their own knowledge more highly than that of ranchers. According to ranchers, conservationists privilege a certain type of “scientific” knowledge, preferring, for example, the findings of a single study over a ranchers’ ongoing experience of a phenomenon. Many ranchers also see themselves as environmentally aware, and want their efforts to be recognized (or at least not ignored) by conservationists. Furthermore, ranchers do not believe in the neutrality of bureaucratic process. Information about their properties is political, and ranchers are wary about sharing it. In addition, ranchers perceive that past agreements and political arrangements have slowly undermined their position. They agree to one thing upfront, but then the terms of the agreement change over time. In these ways, I showed that ranchers are skeptical about the possibility for working relationships with conservationists.

Ranchers express frustration with conservation and yet when I mentioned specific ecologists or researchers, ranchers expressed respect. A rancher who worked extensively with a very strong conservationist from the Ministry of Environment (the man called the MOE the “Ministry of No” and was very passionate about wildlife). The rancher said, mildly, “he’s got his ideas.” Their priorities might be different, but they still worked together. In fact, ranchers I interviewed expressed a qualified willingness to cooperate with new conservation activities. One rancher said, “ranchers have decided to work with them [conservationists],” to “educate them” (2006). “It’s easiest to work with them and do what they say,” he said. Although that rancher sounded resigned to conservationists’ activities, others take a more positive view. Another rancher said that “environmental groups can be successful when they work cooperatively” (2007). He said that these groups could help with development rights, fencing, and wildlife management. This man also said that “a well-managed ranch produces ecological goods and services, but that costs money” and that “it would be nice to be financially compensated” (2007). So what are ranchers’ main concern? In this chapter, I have argued that ranchers often experience
conservation as part of academic-bureaucratic networks that are changing the social meaning of grasslands.

However, in a time of industry upheaval, new partnerships may be possible. In 2007, a rancher said to me: “the Province doesn’t put a lot of weight on [ranching]. The premier needs to say something positive about agriculture.” However, in the last three years, much has changed. In May 2009, Premier Gordon Campbell announced a Ranching Task Force (RTF) to assist the “ailing” industry (Fortems 2009; Government of British Columbia 2009b). The purpose of the task force was to identify “government policies, regulations and legislation that may be hindering the competitive position of the B.C. cattle industry” (Government of BC 2009a). The report, which came out in December 2009, suggests new ways to restructure the industry, including through value-added production and the pursuit of beef sales in other regions of the world with high demand (Ibid).

As the industry is in crisis, there is impetus for change. The RTF report is a strong assertion of the presence and social value of ranching; it also suggests options for future industry development. The report notes that “through partnerships with government, universities and non-governmental organizations… the BCCA [BC Cattlemen’s Association] is working on continually improving range management in BC, thereby putting into practice a truly sustainable method of local food production” (Government of BC 2009a). Sustainable, local food production, with an emphasis on good range management and productive partnerships with academic-bureaucratic networks, is an idealized form toward which many BC ranchers aspire. The issues of knowledge and process described here may continue to cause conflict, even within that frame.

The official government press release suggested that the purpose of the task force is to “bring together key stakeholders with government to advise how policy and regulatory changes can assist the industry through challenging global economic times,” but the outcomes of that process are as uncertain as the language is vague (Government of British Columbia 2009b). At the same time, Campbell announced a collaborative project with the BC Cattlemen’s Association to develop fences in priority areas (Ibid).
Chapter 4

Grasslands, Bureaucracy, and Aboriginal Title and Rights

_The middle of nowhere is always somebody’s somewhere._

- Aboriginal activist and writer

**Introduction**

In 2007, I wrote a short story, “The Gesture,” in which an Aboriginal teenager drops his cigarette and starts a fire inside a grassland exclosure (Appendix C). At the time, I was working at the Union of BC Indian Chiefs, and I shared the story with an Aboriginal political leader. We discussed it for an hour, and his analysis helped me to see the story in new ways. He spoke about the role of fire in the story, and in general. He was concerned that I should understand fire as a regenerative rather than purely destructive force. I appreciated this perspective after many people had interpreted the teenager’s burning of the rangelands as “revenge” against the rancher who held their lands for decades.

This leader also told me that his grandmother lives near open grassland and still occasionally sets fires. He said it was “no big deal” for her, when she’s out on a seasonal round, to lay down some fire if things looked overgrown. He found it hard to explain. As I describe in Chapter 5, there used to be debates over whether Aboriginal fire-setting was intentional: historically, some people perceived it as reckless while most now argued that it was careful management. What I understood from this man, though, was that the basis of the debate – whether burning was “rational” in a Western scientific sense – was not relevant to his grandmother. I learned that when his grandmother burned, she clearly had intentions, but perhaps intentions that could not be explained or understood within such a
narrow framing. An academic debate about the difference between scientific, planned burning and “irrational” reckless burning did not explain this woman’s experience, her relationship to this place and her livelihood activities therein.

This man also said that I had in some way reproduced the Coyote myth, as the Aboriginal teenager in the story appears, wreaks havoc, and disappears in a way similar to the Coyote in Secwepemc and other Indigenous mythology. Through trickery, Coyote forces human beings to see things anew. Poet Harold Rhenisch describes how:

Some of the most haunting stories of this long, human history of the grasslands concern people, often tricked by Coyote, who find themselves walking in an unfamiliar grassland, over which blows an endless, soft, warm wind. Soon they notice the ground below them is full of holes, much like vole tunnels, and that the wind is pouring out of them. When they peer down the holes, they discover they are actually in the sky and look down to see the Cariboo Chilcotin grasslands far below. (2007, 186).

Rhenisch’s description of Coyote captures a spiritual element of grassland culture: the role of trickery and mystery in human-nature relations. The ethnographer James Teit also recorded Shuswap Coyote stories (1975). He notes that the Coyote stories are popular, since they are often funny and children enjoy them. These stories are products of a complex and long-lived culture in a specific place. Coyote is a central figure in Secwepemc mythology, and as the trickster his role is often to bamboozle or undermine humans. He also demonstrates the consequences of improper behavior by behaving improperly himself (George Manuel Institute 2004). But Coyote himself is often tricked or undermined. In one amazing story, Coyote comes across someone called Holxolip, who is throwing his eyes up in the air and catching them in the orbits (Teit 1975, 632). Coyote tries to do this, too, but ends up throwing his eyes too high in the air and Raven comes along and steals them away, and Coyote has to fill his eye sockets with two rose-berries. His eyes were big and red and he could not see nearly as well.

I could write a chapter on my conversation with this leader. However, the point I wish to make here is that his interpretations and reflections made me realize that he had a view of grasslands very different from my own, a product of his own history, culture,
work, and personal experiences. As noted in Chapter 3, in 2006 I travelled the grasslands with a rancher and commented aesthetically on them in a way to which he did not relate – he did not see the grasslands the same way. Similarly, in discussing the short story with this political leader, I sensed the limitations in my own understanding. I felt that I could never fully understand the historical and cultural meanings of grasslands in Aboriginal communities, but could at least know that I did not understand.

I do not mean to romanticize or essentialize Aboriginal peoples’ perspectives on grasslands. Aboriginal interviewees had many different relationships to and perspectives on grasslands: as ranchers, political representatives, and government employees. One Aboriginal interviewee, on a day I spoke with him, spent the morning dealing with business relating to his position as a chair on his tribal council, and the afternoon at the provincial Range office discussing the grazing plan for his small cow-calf operation. During the interview, he would identify himself as either a rancher or an Aboriginal leader, or sometimes both. He described problems of off-road vehicles on Crown range near his ranch, and inter-community politics at the Union of BC Indian Chiefs.

Still, I began this chapter with my conversation with this political leader because it helped me to realize the long, complex human history of grasslands and the limits of my own understanding. A whole social, political, cultural world precedes not only grassland conservation and ranching, but the whole colonial re-settlement world. The middle Fraser is the traditional territory of the Secwépemc, St’át’ín and Tsilhqot’ín peoples, who hunted and harvested many plants on its grasslands. Salmon fisheries – at many significant sites throughout the middle Fraser – were also crucial. Most villages were situated on the east side of the Fraser River, “generally a short distance up the valleys of small creeks” (Teit 1975, 453). The grasslands were sites of intensive Aboriginal use. Aboriginal peoples burned grasslands regularly to ease travel and encourage the growth of certain plants (among other complex socio-cultural reasons) and these fires maintained open grasslands (Blackstock and McAllister 2004; Gayton 2003a; Powell 2005; Turner 1997; Wikeem and Wikeem 2004). Before colonial resettlement, the Fraser River was a significant food source for interior Aboriginal peoples and “in the Canyon, where fishing sites were abundant and excellent, it probably supported as
concentrated and dense a non-agricultural population as anywhere in the world” (C. Harris 1997, 104).

As I describe in this chapter, settler bureaucracy dispossessed Aboriginal peoples of most of their land and now, nearly 150 years later, attempts some corrective redistribution. After several landmark court cases recognizing the ongoing existence of Aboriginal title, provincial bureaucracy has begun to change its approach to Aboriginal people and their unresolved land rights. Since the 1990s, new bureaucratic processes have proliferated. The Treaty process and the New Relationship are two overarching frameworks within which several of these new, corrective processes can be understood. Aboriginal people are constantly being made to translate their grassland uses and values into a bureaucratic frame of reference.

Following Foucault’s work on governmentality, anthropologist James Ferguson argues that power is derived from channeling activities through bureaucracies. He writes: “the growth of state power in such a context does not imply any sort of efficient, centralized engineering. It simply means that power relations must be increasingly referred through bureaucratic circuits” (1992, 274). This is particularly evident in current BC land processes, where new bureaucratic programs around Aboriginal title and rights develop constantly, and conflict is re-routed to a realm of administrative process. Furthermore, these processes are always changing and enrolling new aspects of social life in regulation. As a result, we should see the state not as an actor or apparatus, but as a set of processes (Trouillot 2001). Trouillot writes that the state’s “materiality resides much less in institutions than in the re-working of processes and relations of power so as to create new spaces for the deployment of power” (127). When exploring “the state,” we should not look for an abstract institution, as bureaucracy’s power lies in constant change and social reorganization.

Grassland conservation initiatives take place within the ambiguous relations between decolonization and bureaucracy. In this chapter, I argue that awareness of unextinguished aboriginal title is high among conservationists, but it remains difficult to integrate this perspective into conservation practice. With an emphasis on rational planning, grassland conservation has sought to provide scientific information to diverse stakeholders; conservationists have sought to raise the profile of grassland biodiversity in
different arenas. Scientific research, mapping, and planning will continue to be important. At the same time, there is need for political engagement that reflects a concern for social justice alongside grassland ecology and biodiversity. The issue of land redistribution is central in the region; there are significant land claim processes underway and eventually at least some rangeland will be transferred to Aboriginal communities. Besides this utilitarian perspective, however, there are underlying injustices that need to be addressed.

In this chapter, I explore social reorganizations around grasslands and Aboriginal title and rights. First I describe how, for the nineteenth and most of the twentieth century, bureaucratic processes enabled dispossession, removing lands from Aboriginal control. Second, I describe how, in the late twentieth and early twenty-first centuries, new processes have sought to address this dispossession. There are rewards for Aboriginal people participating in new bureaucratic initiatives, including recognition and a potential increase in access to land and resources. There are also challenges: dealing with much uncertainty, translating knowledge into new forms, and working within a bureaucratic system that many have spent their lives trying to fight. In a final section, I discuss how grassland conservation’s relationship to colonialism and bureaucracy. In its attempt to be apolitical, its emphasis on science and rational planning, conservation sidelines the issue of Aboriginal title and rights. Throughout all three stages of this analysis, I argue that the burden of accommodation and cultural change lies heavily with Aboriginal communities.

**Reserve Creation and Ranch Establishment**

Although I have suggested that government presence is thin, the whole sense of spaciousness that ranchers appreciate in the middle Fraser – the large property sizes and expansive rangelands under pastoral leases – was produced by bureaucratic processes of pre-emption and reserve creation. Reserves in the middle Fraser are very small, organized around the edges of large ranches. Large areas of grasslands are held at Big Bar Ranch (often called the OK Ranch), Gang Ranch, Alkali Lake Ranch, and Riske Creek Ranch
The GCC notes that, “along with Douglas Lake Ranch, these are some of the largest cattle operations on native grassland in the province” (Ibid). As conservation moves into this rural landscape, the property regime of large ranches often feels like a naturalized truth rather than an unjust production of early settler bureaucracy, much contested in contemporary politics.

Historian Paige Raibmon suggested that analyses of colonial dispossession should retain what she called “incredulity” (2009). In other words, our studies should be framed within a sense that the colonial resettlement of BC is not inevitable, but a truly challenging and astonishing phenomenon that requires ongoing and fundamental investigation. Incredulity about colonial dispossession in the middle Fraser was very present in my encounters with the middle Fraser, as I was constantly amazed by the powerful effects of the bureaucratic process which, when examined in a material and embodied way, appears to be relatively small. How did this happen? The performance of bureaucratic power by one or two people, travelling through the landscape, shaped the lives of Aboriginal middle Fraser residents indefinitely. In this section, I trace these bureaucratic interventions and spatial reorganizations.

The physical activities of a state representative produced long-lasting effects on Aboriginal communities in the middle Fraser. The man largely responsible for reserve allocation in the middle Fraser was Peter O’Reilly, who Douglas Harris called the “quintessential efficient bureaucrat” (2008b). Within ten days in July 1881, Reserve Commissioner Peter O’Reilly visited the High Bar, Canoe Creek, Dog Creek, and Alkali Lake communities in his journey through the middle Fraser (D. Harris 2008a, 64). O’Reilly laid out reserves for these First Nations and, for the most part, viable farming lands and adequate water supplies were excluded, and non-Aboriginal settlement was already common (C. Harris 2002, chap. 7). O’Reilly wrote that the land “should never have been disposed of until the Indian claims were defined”; however, much available land had already been purchased or pre-empted (Bellegarde and Purdy 2001, 134). Douglas Harris notes that, with only a few exceptions, the “reserves bordered or straddled rivers or lakes and were intended to secure access to fish” (2008a, 63). O’Reilly reserved 45 miles of the middle Fraser, which contained some of the most productive fisheries in

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39 In the middle Fraser, 42.2 percent of grasslands are held privately (GCC 2004, 54).
BC (Ibid). However, Harris explains, for complex reasons the exclusive Aboriginal fishing rights that O’Reilly presupposed never materialized (Ibid). In other words, the tiny reserve size was justified on the basis of access to a fishery resource that was simultaneously being regulated out of Aboriginal control.

On these small reserves, much of the land was unsuitable for agriculture (C. Harris 2002, chap. 7). In his 1879 Statement, Chief William of the Williams Lake Band said: “the land on which my people lived for five hundred years was taken by a white man. He has crops of wheat and herds of cattle. We have nothing, not an acre” (NStQ 2007b). In his 1914 testimony to the McKenna-McBride Royal Commission, Chief High Bar Joe said:

Where I am, we have no water – I have just got a little bit of water that I use but none of the others have any water. We have only cultivated a very small piece of land; just big enough so that that little spring will irrigate it. Outside where I am working now, I am going to tell you about it. I have been using one piece of land – I have a house on it and a fence around it – I fenced the best part that I am using – I did not fence all the good land, and now whitemen have gone there and have taken that place. (Royal Commission 1916, 115).

The Canoe Creek Band website notes: “Each of the main communities of Dog Creek and Canoe Creek are situated on approximately 50 hectares of land, most of it rocky slopes and gravel on the remaining portion” (Wonders 2008).

One Aboriginal interviewee told me that his great-grandfather used to ranch, but he “got squeezed out… There was all this paperwork but he couldn’t do it. He couldn’t even read… In the end, all the good land went to the big ranches because they had influence with the government” (2007). An Aboriginal rancher could not meet the bureaucratic demands of land registration. Literacy was a fundamental barrier. He could not represent his land use within the processes of land allocation, and so did not retain title to the land he used for ranching. This quote captures a central problem in bureaucratic-Aboriginal relations: structured rules of engagement based on settler culture and government practice. The burden of translating knowledge lay with an Aboriginal
rancher; he lost his land when he could not make the claim in a way recognized by the state.

In August 2007, I was standing at the edge of an alfalfa field over the Fraser River, as a rancher pointed at the landscape, trying to explain the property regime. He dropped down onto his knees and drew a map in the dust, pointing out the features on the landscape as he went. A sharp diagonal cut across the river from one side to the other. The reserve, which lines both sides of the river, begins just south of a creek. The First Nation is left with a steep rocky bank on one side, crossing over to another bank, narrowly missing the creek that might have made that land productive. The water rights were tied to the ranch. The geography of dispossession is still astonishing, no matter how much I had read about its processes and unjust outcomes. The rancher, pointing out his property lines and the reserve boundaries simultaneously, made clear connections between ranching and colonial dispossession.

**Ranching, Labour, and Land**

Government discourse in the late 19th century emphasized the success of new Aboriginal livelihood practices. Aboriginal economies became a mix of farming on reserve land, traditional livelihoods, and wage labour. When Peter O’Reilly visited Alkali Lake in 1881, he “reported that the members of the Alkali Lake [Esketemc] Band were already heavily involved in ranching, owning significant numbers of cattle and horses” (Bellegarde and Purdy 2001, 134). In 1888, an Indian Agent in the area reported mixed Aboriginal economies at Pavillion, Clinton, High Bar, Dog Creek, Alkali Lake, and Williams Lake (Government of Canada 1888, 87). His report stated: “besides cultivating land on the reserve with considerable success they obtain employment at lucrative wages from the white settlers of the locality. The bands at Clinton, High Bar, Canoe Creek, Dog Creek, Alkali Lake and Williams Lake are in an equally prosperous condition” (Ibid). Such claims created the idea that there were many opportunities for Aboriginal people and the implication was that any failure to take up these opportunities was the fault of Aboriginal peoples.
As in other locations and industries in BC, Aboriginal peoples in the middle Fraser came to be represented by settler society as rural laborers.\textsuperscript{40} A 1969 regional economic study by BC’s Economics and Statistics Branch noted that “the large commercial ranches depend almost exclusively on hired help and provide employment for a few hundred persons, mainly Indians, from the surrounding area” (Government of BC 1969, 44). Local histories and government studies report extensive Aboriginal involvement as cowboys and labourers (Alsager 1994; Government of BC 1969; Kind 2006; Marriott 1994; Mather 2006b). Often, when it came to cowboying, Aboriginal men were the “acknowledged experts” (Mather 2006b).\textsuperscript{41} Aboriginal people in the middle Fraser made use of new opportunities available to them, including wage labour on the large ranches.

But Aboriginal people were not landowners and their lack of capital gave them little power. Lutz describes how, by the early twentieth century and for complex reasons including government policy and settler society racism, Aboriginal people in BC were often confined to low wage seasonal work (2008, chap. 9). Then, by the later twentieth century, even these positions were disappearing (Ibid). Such was the case with ranch work. As a result of ranching mechanization, many seasonal wage labor positions were lost. A clear example was the mechanization of haying. Aboriginal community members laboured on White ranches during the haying season, but by the late 1970s, when these ranches no longer used traditional haying methods, this seasonal employment evaporated (Hall 1980). By 1980, fence-mending was the main short-term employment on ranches (Ibid). Two brief personal stories suggest the vulnerability of Aboriginal livelihoods based on wage labour, and also the social and emotional narratives behind something like a statistic of wage employment on ranches.

\textsuperscript{40} In his analysis of the relationship between legal processes, colonial dispossession, and fisheries in BC, Douglas Harris writes, that fish was “remade as an industrial resource and Native people as an industrial labour force” (2001, 9).

\textsuperscript{41} However, this celebration of “Indian cowboys” is often a mixed discourse, one recognizes certain skills – usually riding prowess – but often in conjunction with reference to assumptions about limited capacity and initiative (see for example Marriott 1994, 69). Marriott writes, politely, “While none of them ever seemed to have much ambition – when compared to our ideas – and none I ever knew wanted to accept leadership or responsibility, yet they were good workers when they worked, and in practical range work and handling range cattle, they could hold their own in the cow business” (Ibid).
An Aboriginal interviewee spoke of a family member who worked on a ranch beside his reserve as an irrigator; he was so skilled that people said he could “make water flow uphill.” When the ranch purchased a new irrigation system, this man lost his job. There were no other opportunities for him. He became depressed, and drank a great deal. Most days, he hung around with his friends in Botanio Park in Williams Lake, though he would hitchhike weekly to another nearby reserve to visit his nephews. “He had a whole lot of hurt in his life,” the interviewee said. “We didn’t judge him for his drinking” (2007). This man eventually died of injuries believed to be related to abuse by an RCMP officer while in custody. His family was not notified by the hospital when he was brought in and some family members did not have a chance to see him before he died. The pain and trauma of this man and his family are hard to imagine. It is a very emotionally challenging example of how mechanization replaced ranch labor with racially-differentiated consequences.

A story from the Gang Ranch captures the complex relationships among Aboriginal people, ranching, wage labour, and land title in the middle Fraser (Hunter 1983; Schreiber 2008). The owner of the Gang fired Jimmy Rosette, an irrigator and member of the Canoe Creek Indian Band. The very next day, the owner came across Rosette by the corral and reminded him that he had been fired. According to the article, Rosette replied, “You can fire me, but you’re not going to move me. This is my home” (Hunter 1983). Aged about seventy, Rosette was born on the Gang and had lived there his whole life. The Gang Ranch owner perceived Rosette’s wage labour as a service that could be terminated, but Rosette understood the circumstances differently. His attachment to this land existed outside settler society’s property structures and his role as a ranch employee was inseparable from this attachment.

As settlers and government emphasized a ranching landscape, many traditional (and ongoing) Aboriginal land uses fall outside the frame. In her study of Secwepemc language and land use, anthropologist A.D. Palmer writes that “subsistence activities form an integral part of life in Alkali Lake” in ways “generally underestimated by federal and provincial agencies” (2005, 67). A 2005 study by a Victoria-based NGO demonstrated Aboriginal peoples’ extensive use of many diverse plant species in the Cariboo-Chilcotin (Powell 2005). It also described the concerns of Aboriginal groups.
about the impacts of other resource use in the area, including overgrazing by cattle, which results in the removal of important plants and in the deposition of animal waste on gathering sites (Ibid). Esketemc elder Angela George said: “Used to be a lot of berries. Saskatoons down here in this spot. And the ranchers here they don’t feed their cattle and they eat all the bushes” (Palmer 2005, 67). Over time, the physical grassland landscape was changed as a result of its officially sanctioned uses; other uses, continuous but unregistered bureaucratically, were increasingly impacted.

Such stories of social marginalization might not appear at first to be part of the grassland debates, which have focused on the cattle grazing and ecological protection. Still, these were stories that Aboriginal interviewees thought were central to grassland politics. Two points are clear. First, the issue of Aboriginal title underlies these debates; the creation of large ranches was enabled by bureaucratic processes that laid claim to Aboriginal territory. One can understand that grassland conservation in Cariboo-Chilcotin would focus on the large ranches; just 3.1 percent of grasslands fall within Indian Reserves (GCC 2004, 54). This is a tiny amount of grasslands, even compared to other regions provincially; for example, in the Okanagan, 24.5 percent of grasslands lie in Indian reserves. However, this property regime was built on an unjust system of settler pre-emption / purchase and reserve creation (often in that order) and its historical context is highly relevant in contemporary resource politics. Second, bureaucracy was not a neutral process of “rational” administration; it reflected broader social values of settler society and resulted in a massive reordering of Aboriginal lives. The burden of accommodation and change lay with Aboriginal peoples.

42 According to the GCC’s assessment, 9.7 percent of BC grasslands lie in Indian Reserves (GCC 2004, 74). However, in the Cariboo-Chilcotin, just 6,420 ha of grasslands – around 3.1 percent of the region’s total – fall within Indian Reserves (54). This contrasts sharply with figures for the Okanagan Basin (24.5%), Thompson Basin (14.6%), East Kootenay Trench (9.6%) and Southern Thompson Upland (9.2%) (GCC 2004, 54).
New Bureaucratization of Aboriginal-Settler Relations

Since the late twentieth century, new processes have developed to address the unjust colonial allocation of land and resource rights in BC. These processes, however, are challenging and fraught with uncertainty and contradictions for their Aboriginal participants. Opportunities to reclaim land, resources, and political autonomy are inextricably linked with a powerful state apparatus. To what extent do these opportunities achieve their stated aims of redress versus simply re-routing social conflict through new bureaucratic circuits? As the bureaucratic processes are diverse and relatively new, this is a question to continually raise and explore, rather than for which to find a definitive answer. Still, it appears that while Canadian courts have provided some measure of support to Aboriginal territorial claims, governments have been slow to respond to new legal realities. The outcomes of governmental programs such as the Treaty Process and the New Relationship are unclear in most parts of the province. As well, because settler bureaucracy has historically been a tool of dispossession, many Aboriginal leaders and community members are skeptical about the possibility for transformative change.

The Legal Context: Aboriginal Title and the Responsibilities of the Crown

While much of this chapter focuses on negotiation and new policy and funding programs, the legal context is also critical. Douglas Harris (following E.P. Thompson’s analyses of eighteenth century England) argues that law has been a tool of dispossession and colonial control, but that it also offers space for resistance (2001, chap.4). In three landmark cases – Calder v. British Columbia, Delgamuukw v. British Columbia, and Tsilhqot’in Nation v. British Columbia – Aboriginal groups argued that they never surrendered land title to the Province. In the 1973 Calder case, the Supreme Court of Canada “unequivocally affirmed the concept of Aboriginal title” although divided over whether it had been extinguished in BC (Berger 2002, chap. 5). Although the Nisga’a did not receive the declaration that their Aboriginal title existed (and continued without extinguishment) that they sought, the decision set in motion the negotiations that would lead to the Nisga’a treaty in northwestern BC in 2000 (Ibid; UBCIC 2005). As well, the
decision would play a role in the constitutional negotiations in the early 1980s that led, in 1982, to a Canadian \textit{Charter of Rights and Freedoms} and to the constitutional entrenchment of Aboriginal and treaty rights in section 35.\textsuperscript{43} These developments would provide the catalysts for the BC Treaty Process, established in 1992 to redress the provincial and federal governments’ failure to acknowledge Aboriginal title in BC.

The need for redress was only confirmed in 1997 when the Supreme Court of Canada released its decision in \textit{Delgamuukw v. British Columbia}. The Gitxsan and Wet’suwet’en hereditary chiefs claimed ownership and jurisdiction over their traditional territories in north central British Columbia. (UBCIC 2005).\textsuperscript{44} Although the Supreme Court did not rule that the Gitxsan and Wet’suwet’en had Aboriginal title, and to date no Canadian court has done so, the decision only reiterated what \textit{Calder} had already established: that Aboriginal title was a legal interest that could not be ignored as it had by Canada and British Columbia for the preceding century. In contemporary BC land politics, participants often talk about a “post-Delgamuukw” world, suggesting that the case represents a new legal reality for settler society to face: the ongoing existence of Aboriginal title.

The litigation continues. \textit{Tsilhqot’in Nation v British Columbia}, a case brought by the Xeni Gwet’in, one of six communities in the Tsilhqot’in Nation, against the provincial government is currently on appeal to the British Columbia Court of Appeal.\textsuperscript{45} In 2007, Justice David Vickers of the British Columbia Supreme Court concluded that, in his opinion, the Xeni Gwet’in had made out their claim to Aboriginal title in large areas of the Chilcotin region. However, he did not rule or make a finding of Aboriginal title. Instead, in a manner similar to the Supreme Court of Canada in \textit{Delgamuukw}, Vickers sent the parties back to trial, while also suggesting that the claim could be resolved more effectively through negotiation than through the courts (Mandell Pinder 2007; Mulgrew 2007). In 2008, the Province and the Xeni Gwet’in began negotiating an interim agreement regarding financial settlement and resource management but when the Province failed to meet an October deadline for an offer, the Xeni Gwet’in threatened to return to court (Hill 2008; Tsilhqot’in National Government 2008). In December 2008,

\textsuperscript{43} \textit{Constitution Act}, 1982, s. 35.


the Province appealed Justice Vicker’s 2007 decision. The appeal is underway, and appears destined to be appealed again to the Supreme Court of Canada. Whatever the outcome, the Tsilhqot’ in case demonstrates that Aboriginal title remains a legal interest of considerable consequence in any decisions about land use in BC.

Other cases have begun to reveal further ramifications of unextinguished title. In its 2004 decisions in *Haida Nation v British Columbia* and *Taku River Tlingit v. British Columbia*, the Supreme Court of Canada ruled that the federal and provincial governments had fiduciary duties to consult Aboriginal peoples and to accommodate their interests when they contemplated activity that might infringe Aboriginal title land where Aboriginal title was claimed but not yet established or recognized by courts (Mandell Pinder 2007). According to Jessica Clogg of West Coast Environmental Law, these decisions mean that “the Supreme Court of Canada has rejected once and for all the Crown’s argument that it does not have to consult Aboriginal Peoples about land and resource decisions until their rights are proven in court” (WCEL 2005). This requirement for consultation and accommodation demands extensive institutional innovation and both federal and provincial governments have created new programs. The New Relationship agreement between the province and First Nations, described below, must be understood in this context. It is one of the provincial responses to the new legal environment that the courts are establishing as they work through the constitutional entrenchment of Aboriginal and treaty rights.

*Gustafsen Lake and The Treaty Process*

In August 1995 at Gustafsen Lake, Aboriginal activists claimed a piece of ranch land as their traditional Sundance site, but the rancher and his employees opposed them. Eventually, after a month of increasing tensions and sporadic violence, the Sundance camp was locked down by police; no one could enter or leave. National attention was trained on Gustafsen Lake. Then, after mobilization of 400 RCMP officers the camp was dismantled and eighteen protesters were arrested (Gawthrop 1996, 231). It was

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impossible to know what happened on the ground at Gustafsen Lake after, as journalist Terry Glavin writes, the “media circus” arrived (1996). I was working at a guest ranch in the middle Fraser when the conflict broke out nearby and I clearly remember Sundance supporters coming by the ranch, angrily pointing out bias in *Vancouver Sun* reports.

Many perspectives were articulated through this conflict, which was flame to the fuel of Aboriginal-settler land conflicts. Glavin reported a strong anti-Aboriginal position in rural BC at the time: “A strange, populist barbarism is sweeping the small towns of this province and it’s not grounded in reality… There’s this overwhelming public sentiment that native people are getting a free ride from the provincial government and it’s the exact opposite. They’ve done everything they’ve had to in law” (Gawthrop 1996, 233). Non-Aboriginal protestors took to the streets in 100 Mile House to protest the standoff, holding signs that said “One Law for All” and “We Support the RCMP” (Lambertus 2004). Glavin notes that the Gustafsen Lake conflict soon reflected settler concerns about the Treaty process and the changing institutional status of Aboriginal people (1996). As well, the President of the Union of BC Indian Chiefs Saul Terry connected the standoff to the issue of unextinguished Aboriginal title:

> The positions expressed by the Sundancers on their nations’ sovereignty and aboriginal title and rights are not ‘extremist.’ They are shared by many Indian peoples across this province. British Columbia is unceded Indian land. Our nations’ ownership of their respective territories (our aboriginal title) has never been extinguished. We are not ‘squatters’ or trespassers in our homelands. (Terry 1995, 1).

The 1995 Gustafsen Lake standoff occurred at a tense and critical moment, near the beginning of a new era of Aboriginal-settler relations in BC. It was an era of legal and institutional changes occurred in Aboriginal-settler relations. While some direct action persisted, many First Nations opted to cooperate with government. In 1992, the Governments of Canada and British Columbia, and the First Nations Summit agreed to negotiate contemporary treaties through the BC Treaty Commission (BCTC 2008). In the

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47 These signs are shown in the photographic inserts in the centre of the book.
early 1990s, there was growing Aboriginal militancy, which often took the form of direct action such as blockades (Blomley 1996).

The Gustafsen Lake standoff involved some members of the Canoe Creek Band (and was opposed by others). By 1995, when the standoff occurred, Canoe Creek was part of the Northern Secwepemc te Qulmucw (Northern Shuswap Treaty Society or NStQ), participating in the tripartite negotiations at the BC Treaty Commission (BCTC 2009). The NStQ seeks self-government, as well as “shared decision-making” with federal and provincial governments on resources in their traditional territory (NStQ 2007a). The NStQ’s Statement of Intent map, though under review by the Society, expresses the group’s interest covering a large area from Clinton north almost to Quesnel (BCTC 2009). The NStQ is currently in BCTC Stage Four, negotiating an Agreement in Principle. The Esketemc First Nation (known earlier as the Alkali Lake Indian Band) is also in Stage Four, though making progress on issues like local government and certain natural resource issues, like wildlife (BCTC 2010). Other Nations in the middle Fraser, the St’at’imc and Tsilhqot’in, are not participating in the Treaty Process, choosing litigation and other forms of resistance instead.

Negotiations have shown a chasm between the NStQ and the federal and provincial governments. In February 2009, the federal and provincial governments made an offer to the NStQ. By June, the NStQ made a counter offer for roughly ten times the land in the governments’ offer and more than 3.5 times the amount of cash (MacInnis 2009a, 1; Silver 2009). In particular, the NStQ wanted more money for future land acquisition (Silver 2009). Doswell, Chief Negotiator for the NStQ, said: “we’ve got some huge issues to resolve before we even get to an agreement in principle” (Ibid). However, there does appear to be potential room for negotiation and compromise. For example, the

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48 Nick Blomley’s survey of Canadian newspapers “revealed thirty-three [First Nations] blockades outside BC between 1980 and 1993,” while the “same period saw forty-nine in BC” (8). In the summer of 1990, there were nearly 30 blockades involving twenty groups (Blomley 1996).
49 The NStQ is “political alliance between the Canim Lake Indian Band, the Canoe Creek Indian Band, the Xat’sull First Nations and the Williams Lake Indian Band (a.k.a. Sugar Cane)” (NStQ 2007a).
50 The St’at’imc Nation opposes the work of the BC Treaty Commission, arguing that the process is about extinguishment of Aboriginal rights. In an article in the St’at’imc Runner called “What are they Offering to Buy?” Grand Chief Saul Terry writes, “First and foremost, the BCTC process is an extinguishment process” (2006).
51 The federal and provincial governments’ offer included $30 million in cash, 50,000 hectares of land and $12 million to purchase more land (Silver 2009). The Treaty Society’s counter offer included: $93 million in cash, $37 million in a fund to buy up to 127,000 hectares of land, and 487,941 hectares of land (Ibid).
chief provincial negotiator, Roger Graham, said that “Canada and BC have agreed to explore revenue-sharing with the NStQ” (MacInnis 2009a, 2). Under such arrangements, the treaty society may be beneficiaries of certain economic activities on lands not formally under their control.

Land redistribution in ranch country faces particular challenges. In treaty settlement in coastal forests, where land is held under tenure by forest companies, the Province can often arrange land swaps, whereby the Province will exchange one parcel of land for another “one valley over,” as one interviewee said. In grassland politics, this sort of exchange is far more difficult, as proximity of grazing lands to ranch headquarters is critical for operations. Moreover, an even more fundamental challenge is that much of the land is owned in private ranches, and even Crown land is often attached to working ranches through grazing permits. When a ranch comes up for sale, many groups discuss the possibility that government could buy the ranch as part of treaty settlement. Two interviewees (both ranchers) described the idea of a government-established trust fund from which ranches could be purchased on behalf of a First Nation (if a ranch came up for sale before treaty settlement) (2007). So far, this has not happened; interviewees believed it was difficult to secure the capital with the uncertainty and difficult logistics of land claims. A rancher said: “there’s a lot of risk and uncertainty. It sounds like an easy idea but it’s really not” (2007). A conservationist said: “there’s always been big rumor mills… that a ranch comes up for sale and that they can’t sell their ranch because the First Nations want the government to buy it” (2007). However, the purchase of private ranch land for treaty settlement has not yet occurred. For this reason, a substantial part of the treaty settlement will involve money in the form of a land fund, from which NStQ member bands can purchase lands on a willing buyer, willing seller basis (Interviews 2007; MacInnis 2009b).

Will this land, once purchased, be used for ranching? One Aboriginal interviewee said that, “Not many Indians want to ranch.” Other interviewees (both Aboriginal and non-Aboriginal) disagreed and said that some First Nations have a strong, long-term interest in owning working ranches (2007). I heard from two interviewees about the

52 Ranchers support willing-buyer-willing-seller model. As one rancher said: “We don’t care if First Nations own ranches. They’ve been in the industry a long time” (2007).
possibility that First Nations might buy the Circle S James Ranch – the one on which the Gustafsen Lake standoff occurred. These interviewees mentioned that a First Nation (unnamed) was developing a business plan to continue running the ranch. Another Aboriginal interviewee expressed interest in expansion of her family’s existing ranch, for which more land was needed. In all cases, land reallocation was the fundamental concern.

The New Relationship

As described above, the Supreme Court decisions regarding the Haida Nation and Taku River Tlingit cases established new requirements governments: they had to consult Aboriginal peoples and accommodate their interest on lands that where Aboriginal title was claimed but not yet established in court or treaty. At approximately the same time, Aboriginal leaders opted for a new, more collaborative approach to relations with the Province. The result was the 2005 creation of “The New Relationship.” The historically radical Union of BC Indian Chiefs entered into negotiations with the Province, alongside the First Nations Summit and the BC Branch of the Assembly of First Nations. The New Relationship provides institutional infrastructure through which the Province and First Nations can develop strategies of consultation and accommodation as dictated by the Haida-Taku decisions (Government of BC 2008; UBCIC 2010). The New Relationship statement, issued by participating parties, cites an agreement to “establish processes and institutions for shared decision-making about the land and resources” (UBCIC 2010). The Province has allocated $100 million to creating new programs for reconciliation and policy development (Government of BC 2008). At the same time, individual Aboriginal groups are establishing their own guidelines for consultation. The NStQ Guidelines suggest that consultation and accommodation is the “cost of doing business” in their traditional territory and “must be borne by the Government or Third Party whose legal obligation it is” (2003, 6). The guidelines also suggest that consultation must occur at all stages of an activity, and that the NStQ must be involved in activity planning (Ibid).

53 Lowe writes that “the Union has become known and respected for its refusal to engage in any negotiations that would bring about the extinguishment of Indigenous rights or the assimilation of Indigenous people” (2004, 8).
In a presentation to the UBCIC Chief’s Council, Jessica Clogg suggested that, in a post-\textit{Haida-Taku} world, Aboriginal peoples must be prepared with documentation regarding historic and ongoing land uses (2005). If government officials had to consult and accommodate (and many companies were doing the same), Aboriginal people had to be prepared with maps that proved occupation and use. The demand for documentation falls within a broader provincial context: there is a massive bureaucratization of Aboriginal-settler relations and an increasing demand for Aboriginal knowledge to be translated to forms and formats admissible as legal evidence. When Justice Thomas Berger argued the now-famous \textit{Calder v British Columbia} case at the Supreme Court of BC in 1969, the lawyers for the Province accepted his arguments about historic Aboriginal presence and use without challenge; they agreed that Aboriginal peoples had obtained a living from the land since time immemorial (2002, 114). Contemporary litigants and claimants must be shocked to recall such a position.\footnote{These were vital concessions,” Berger writes (2002, 15). “To concede them was no more than common sense, but today no such concessions would be made. Instead, the courts would have to sit for weeks, months, or years while elders of the tribe, together with anthropologists and experts in disciplines unknown in 1969, struggle to advance extensive and tedious proof of the obvious.”} Since then, the \textit{Delgamuukw, Haida Nation,} and \textit{Taku River Tlingit} decisions and the New Relationship agreement have produced a proliferation of standards and approaches. Now, in court, Treaty, and in consultation, Aboriginal peoples must have extensively documented evidence of their historic and ongoing land uses. This is a battle of information.

Many First Nations now turn to GPS mapping to translate historic uses and cultural values (Tobias 2000). In the middle Fraser, “Canoe Creek, Soda Creek, Williams Lake, Canim Lake, and the Esketemc First Nations as well as the Tsilhqot’in in National Government have completed traditional use studies of their traditional territories” (Powell 2005, 23). The NS\textit{tQ} began traditional use studies (TUS) in 1997, developing “maps and documents of our use, occupation and management of the land from the distant past to the present time” (NS\textit{tQ} 2008). “The TUS work demonstrated our strong, lasting connection to the land,” the NS\textit{tQ} reports, “despite the challenges brought by Euro-Canadian settlement and the cultural displacement we have experienced on the land” (NS\textit{tQ} 2008). To the NS\textit{tQ}, the TUS studies were an important demonstration of presence and use.
In her analysis of Aboriginal Australian land claims, Elizabeth Povinelli notes that “state courts and publics demand evidence of the continuity of traditional beliefs, practices, and dispositions as the conditions of cultural recognition” (2002, 3). Traditional uses, which were culturally embedded and held within a community, must be recorded and mapped. They must be extracted from the community of meaning and translated into objects to circulate within settler bureaucracy in order that the community’s rights can be recognized. There is, simultaneously, a great deal of uncertainty about how this knowledge can be protected. UBCIC has organized large-scale conferences that deal with the relationship between traditional knowledge and land uses and bureaucratic land claim processes: Implementing Delgamuukw (1999) and Protecting Knowledge (2000). As well, in conjunction with Ecotrust Canada, UBCIC has also produced two manuals for community researchers to conduct TUS activities in their traditional territories (Tobias 2000; 2010). A whole new realm of knowledge, academic study, and legal practice has opened up to assess the opportunities and risks as Aboriginal people seek to work within legal and bureaucratic systems to reclaim land and resources.

Ambivalence about bureaucratic engagement

Aboriginal representatives and activists have a long history of fraught relations with bureaucracy. Leaders have consistently faced contradictory obligations. In the 1960s, Chief George Manuel – possibly the “pre-eminent leader of the peoples of the interior” (Tennant 1990, 125) – identified a two-way split in obligations once leaders participate in state run and funded processes: “Government makes an impossible situation for our people. Once you have accepted government funding like we within UBCIC, then you have to accept the fact that you have two masters. One is the people you represent and the other master is the government who gives the money” (cited in Lowe 2005, 59). In the 1975, the UBCIC famously voted to reject funds from the Department of Indian Affairs, but soon had to backtrack, in part because of widespread community protest (Lowe 2005; Tennant 1990; Zirnhelt 1976, chap. 4). For leaders, the challenge was to balance the needs and views of the community with the demands of official politics.
What has changed since the 1990s? What have been the impacts of the widespread reorganization of knowledge and politics around Aboriginal title? These contradictory obligations are not experienced by the formal leadership alone. Many people must now negotiate a fraught space, participating in processes in which they have been historically marginalized. The result is complex emotions, different for different people, and difficult choices. Povinelli develops analysis of critical moments when Indigenous subjects “experience contrasting obligations to reasoned arguments and moral sensibility – and most important, are called upon to performatively enact and overcome this impasse as the condition of recognition” (2002, 3). In order to be recognized by the state, subjects must hold within them contradictory commitments and continue to hold and perform a certain role. The role is defined in constant negotiation with state apparatuses and the “rational” argumentation of the liberal subject is the mode of engagement. In bureaucratic and conservation-related processes, the burden of accommodation and cultural change lies heavily with Aboriginal people.

Within emerging bureaucratic processes, Aboriginal people must consistently try to articulate a position in response to state knowledge. One Aboriginal interviewee, working in a political organization, said he required a “portfolio of selves” to function in his position. He sought to challenge bureaucratic structures while working within them, and interacted differently with different people. In describing a new bureaucratic internship program, where Aboriginal youth spend a year in Victoria, learning about the functioning of bureaucracy and the provincial legislature, this same interviewee said, “They’re training our kids in all the stuff we’ve spent our lives trying to fight” (2007). This man knew there were benefits to such a program, but questioned exactly what the interns would learn and how they would be impacted.

Furthermore, at a personal level, participation in these processes is emotionally challenging. At a large conference, I met an Aboriginal woman I’d previously interviewed; she had just spoken and I said she had raised important points. “Really?” she said. Even after all her years working with government, she said, she felt that when she spoke people were looking at her and thinking, “Just an Indian” (2008). Even while fully participating in a bureaucratic process, she felt unsure of her role and on some level, she did not believe that people valued her contributions. “Colonization runs deep,” she said.
So while bureaucratic process assume neutrality and equal information-sharing, this woman felt, given her experiences, that what she was not being perceived as equal. I had perceived the meeting’s form to be open and dialogic, but her experience was different. She had a difficult time feeling that her contributions were valued.

I noticed that Aboriginal community members regularly used humor to negotiate their ambivalent relationship with bureaucracy, the tension between reflecting community values and working with government. One Aboriginal interviewee, when told that the Department of Fisheries and Oceans had a policy of “no net loss” (meaning that DFO would not allow fisheries habitat to be lost without replacing it elsewhere), said to the DFO officer, “Does that mean you are going to stop confiscating our nets?” (Interview 2007). At one protest, members of the UBCIC made a banner out of a cartoon that challenged the idea of consultation (Adams, 1998):

Character 1: I like to con people. And I like to insult people.
If you combine ‘con’ and ‘insult’ you get ‘consult.
[To Character 2] I’m here to consult you.
Character 2: That sounds expensive and demeaning. Okay.

The cartoon called attention to the costly and potentially corrupting possibilities of consultation without meaningful change. Before a political rally, one woman proposed creating a banner with pictures of serious-looking lawyers and bureaucrats, and the statement, “Unsettled land claims feed our families.” Through humor, she was calling attention to the way prolonged negotiations benefitted a certain elite. At the same time, I understood a subtle subtext about families that are not being fed – those of Aboriginal communities awaiting land claim resolution. Again and again, I saw how Aboriginal activists, researchers, and community members negotiate ambiguous and contradictory moral positions using humor. Linda Tuhiwai Smith notes humor as one “commonsense way” in which Aboriginal peoples may pass on “both a narrative about history and an attitude about history” (1999, 19). In for Aboriginal people in contemporary BC, humor also conveys both narratives and attitudes about contemporary events, allowing complex and multiple meanings to co-exist.
While Aboriginal community members often face this ambiguity with humor, genuine fear, doubt, and mistrust underlie their participation in the Treaty Process and the New Relationship. Will all of these government processes result in real, positive change for Aboriginal communities? Are these processes about reconciliation and redress or about enabling governments to disguise or erase real issues? These are questions as yet unanswered. Grand Chief Stewart Philip publicly and repeatedly expresses skepticism about whether these new processes will translate into meaningful change (e.g. UBCIC 2007). “There still exists a huge gap between the current case law and the good words of the New Relationship,” he said in 2007 (Ibid). “While there is sincerity and commitment to the New Relationship in the Province, it has yet to filter down to the community level.” Worse, some believe that such participation actually weakens Aboriginal leadership and “Once part of the state structure, the organization is prevented from formulating innovative political structures that are grounded in Indigenous traditions, values and beliefs,” writes researcher and activist Lana Lowe in her strategic analysis of the UBCIC (2005, 58). “Instead, Indian leaders are compelled to imitate and perpetuate the very structures of governance they oppose.” Lowe believes that the participation in formal political process weakens leaders’ positions, as the terms are set by government. Alternative ways of governing, more closely allied with Aboriginal traditions, values, and beliefs, may be sidelined.

Aboriginal Peoples and Grassland Conservation

Pre-settlement, Aboriginal burning helped to prevent tree in-growth. A hundred and fifty years after the gold rush, an official from the Ministry of Environment involved Canoe Creek community members in a tree-removal project; the band was paid $30,000 to help remove encroaching trees from the grasslands (Interview 2007). After years of regulating Aboriginal peoples out of their traditional practices, community members were now being invited back to an activity with the same purpose, but on the government’s terms. What used to be a cultural and livelihood practice was now a small, government-
run project. This massive rearrangement of knowledge appears natural only after a hundred and fifty years of government interventions. I believe that much conservation takes place within this frame, where inviting Aboriginal participation takes place on individual initiative and feels progressive and advanced. I do not mean to criticize the invitation, only to re-invite the incredulity I described in above.

And what would be the broader consequences of looking at grassland conservation with a sense of incredulity about the landscape’s colonial past? I believe that immediately two fundamental issues rise to the surface. The first is the issue of land title. Most conservation practices take place within the existing regime of property rights. This is understandable because first, conservationists’ mandate is to protect the grasslands and second, they do not want to alienate landholders or others by, for example, speaking out in support of land redistribution. However, it produces a challenging disjuncture between conservation practices and Aboriginal priorities, as I next describe.

**Land Title**

Some Aboriginal people did not participate in the Commission on Resources and Environment because of the issue of land title. One Aboriginal interviewee said, “They were making all these decisions, but they didn’t recognize our Aboriginal title” (2007). He did not participate in CORE because he rejected its fundamental approach to allocating land. CORE took place in the early 1990s, before the landmark cases that supported First Nations’ long held position that their Aboriginal title remained unextinguished. A government employee said:

First Nations were kind of invited to be around those tables, but it was pre-Delgamuukw, pre-Haida, pre-Taku. Delgamuukw was just starting to be discussed in sort of the mid-1990s, and there was this broad sense that you should probably talk to First Nations, but as soon as they were doing something you disagreed with, there was this broad feeling that you could kind of just keep on doing what you wanted to do. So really, First Nations were just beginning to start to be something to consider at the time. (2007).
In the 1990s when much grassland conservation was institutionalized, political awareness about Aboriginal rights and title was generally low. The process did not recognize Aboriginal title as an encumbrance on Crown title, and proceeded with zoning negotiations as if the lands were owned outright by the province. There was later accommodation of Aboriginal interests in the post-CORE protected area planning processes and management plans, as I describe in Chapter 5.

One Aboriginal interviewee was working to create co-management roles for First Nations in several Cariboo-Chilcotin protected areas, including at Churn Creek (Interview 2007). This person hopes to achieve authority for local First Nations to manage protected areas, and to create economic opportunities (Ibid). This interviewee hoped to create a program similar to the Watchmen Program in Gwaii Haanas National Park, Haida Gwaii. However, a long-time conservationist, talking about possibilities for cooperative management said, “Even if BC Parks had the capacity, they don’t have the right attitude” (2007). He said that in the mid-1990s, BC Parks was given $250,000 to do cooperative management – they were “forced to do it.”

Awareness of Aboriginal title is now more widespread, particularly among conservationists. However, it remains difficult to integrate the large uncertainty of land redistribution into discussions of conservation. At a GCC Symposium in 2007, a staff member gave a presentation on using layered GIS data to come up with priority areas for conservation. He spoke about the “special values” layers that he had developed, which included ranching, First Nations, and recreation. These projects are critically important in planning for conservation – as one former ranching employee said, GCC data can be “practical tools” that “make a difference on the ground” (2010). The project is a present-day overview of uses, intended as input for planning. The base layer is the ecology, which reflects the priorities of the organization. I was interested that Aboriginal people were a “special value,” lateral to recreation and ranching, when of course all of these values involve political conflicts around land tenure and rights. One can appreciate the contribution of this work and also raise questions about how data layers produce a hierarchy of priorities and reproduce assumptions about the landscape’s social meaning.

These “special values” are inextricably linked to property rights, the basic institutions of resource allocation. But property rights are not just part of the great
historic injustices I have described above, they also impact the present and future forms of the ecosystem. Land ownership will determine how grasslands are used, whether they are developed or maintained as open grasslands, grazed or ungrazed, used by ATVs, etc. When I asked how they dealt with the issue of Aboriginal title, two ecologists said they engaged with existing property owners; the underlying land tenure was a political issue outside their purview. The treaty process is the primary vehicle for addressing land and resource reallocation in the middle Fraser, and conservationists have not been involved in this process. Furthermore, the GCC has basic issues of capacity, with no core funding (Interviews 2007, 2010). This makes sense.

At the same time, it is important to ask how issues of Aboriginal title and grassland conservation can be made to speak to one another in ongoing ways. Such conversations will be complex and case-specific; they may involve, for example, collaborating on restoration projects, developing co-management strategies in protected areas, or comprehensive consultation with Aboriginal people about future initiatives on Crown range. There is no roadmap – historically or internationally – for the institutional innovation that would need to occur. There is tremendous need for new ideas for partnership and collaboration. However, new relationships require deep reflection on how conservation and bureaucratic processes work in practice, and how they could be made more inclusive.

**Bureaucratic Process**

A conservationist said, “I can remember going to [x] band for a meeting and nobody showed up. That was typical. There must have been First Nations at the [CORE] table. I can’t imagine them not. But how many and who they were?” He didn’t know. At first, I considered calling the whole chapter “They didn’t show up.” It was something I heard quite a few times, with variations. In conservation and planning processes, Aboriginal people didn’t show up, or not in the way people hoped or expected. This raises a set of questions intensely fraught and political, and often not addressed in academic literature. Is it enough to extend an invitation for Aboriginal people to be involved? Why might invitations not be taken up?
Sometimes conservationists and officials discuss these challenges, in ways that academics would not. One interviewee, a long time conservationist, gave me a list he’d written called “13 Points for Working with First Nations.” The points included points of respectfulness, such as: “treat First Nations as a level of government;” “honor their legal rights and title;” “if you don’t know, ask;” and “if you mess up, apologize.” One point, however, struck me as particularly telling. It was “trust takes time,” and it included several sub-points: “relationships build respect; respect builds trust;” and “‘Trust’ is a different kind of trust as they have been treated so badly for decades – building your integrity is essential.” The language and approach of a list like this are problematic. Words like “they” suggest otherness and also a simple category of people with shared attributes: “They are like this.” Also, the list has a utilitarian feel, as if working with Aboriginal people is a means to a more genuine, environmental end. Still, the list comes from a very conscientious conservationist who wanted to address fundamental challenges he was encountering in his work. What I appreciate most about this list is the author’s attention to relationship building and trust, and the processes through which planning and decision-making happen.

The phrase “they didn’t show up” suggests two things: Aboriginal people are undependable and their participation is optional. It means that a fair process was established and their unwillingness to participate reflects a personal shortcoming or, worse, a negative cultural trait. If we assume, as CORE organizers did, multi-stakeholder participation in a structured public forum, public participation in a liberal democracy, we are missing a central point. If the history of land politics in the middle Fraser suggests anything, it is that bureaucratic protocol is historically contingent and far from neutral. It is based on assumptions that shape everything from how invitations are extended and to whom, where meetings are held and how they are structured, how information is recorded and used, to what points of action are organized.

It might be that when Aboriginal people do “show up,” they feel that their contributions are not equally valued. One Aboriginal interviewee said, “I have to go to all these meetings to keep saying, ‘Hey, don’t forget about us’” (2007). That is not an affirming position. Or perhaps, as with the Chief I described earlier, Aboriginal people are more focused on land redistribution and are therefore less willing to participate in
processes that do not emphasize that priority. Or perhaps it could be a historically-rooted mistrust – as a woman expressed to the judge at the 1992 Cariboo-Chilcotin Justice Inquiry in Williams Lake, “Who are you and why should we trust you?” (Sarich 1993, 5). Whatever the circumstances, it seems to me that we should pause to consider what might have caused the challenges we encounter, rather than allowing a process to continue on its own momentum. A conflict or lack of social connection, carefully considered, might reveal to us some of our own working assumptions. We might also then ask ourselves and the Aboriginal community members we hope to engage, “What can we do differently?”

Two brief points are necessary here. First, I do not underestimate the challenges of working under a budget, on a timeline, and within a structured institutional setting, as many conservationists and officials do. Second, many conservationists and officials are already changing their institutional frameworks or working beyond them. I met an official in the MOE who travelled to more than one hundred First Nations communities to gain their input into legislation he was writing. I also met a land trust employee who said: “Do we want to do what the government wants us to do or do we do what we think should be done? I wasn’t okay just saying, ‘To hell with First Nations because the government says what we’re doing is fine’” (2007). He felt he needed to consult more extensively and work more cooperatively with the neighbouring First Nation.

Conclusions

In summer 2008, I was driving through the middle Fraser on my way to Williams Lake when I saw an eagle’s head spray-painted on the side of a barn. The barn had been repainted red, but the drawing still showed through like a brown shadow. The ranch was one of the earliest in the area. Painted over, the graffiti seemed a symbol of a lengthy Aboriginal history that was marginalized in physical space and cultural imagination. It seemed a clear act of defiance, as if someone felt a need to reassert Aboriginal presence in a landscape that is so often celebrated as a ranching frontier. It is a reminder that the ranching landscape is a product of colonial dispossession.
The entire middle Fraser is the traditional territory of the Tsilhqot’in, St’at’imc and Secwepemc peoples, who never relinquished title to the land through war or treaty. Recent court cases have found that Aboriginal title still exists, and that governments are obligated to consult Aboriginal peoples and accommodate their interests in the lands that are their traditional territories. The ongoing existence of Aboriginal title in the middle Canyon affects contemporary environmental politics as Aboriginal people seek to reclaim land and resources through a number of different processes. They are also regularly invited to contribute to conservation meetings and activities. At the same time, for many Aboriginal participants, their roles in these new conservation and bureaucratic networks are uncertain. Their experiences are coloured by past injustices, and the future impact of these new opportunities remain unclear.

“Our agenda is not the social agenda,” wrote one conservationist in his list of “ten tips for working with First Nations.” For this man, the priority was grassland protection. This makes sense; his organization seeks the creation of protected areas in which grassland biodiversity will be conserved. We need such strong advocates for grassland protection. As well, many conservationists are wary of alienating the ranchers who currently hold the majority of grasslands and oppose land redistribution that might weaken their industry. However, as I demonstrate throughout this thesis, an agenda that seeks to change land use is inherently a social agenda. Scientific arguments about grassland ecology result in social reorganization, even if not as proponents envisioned. Furthermore, this raises an important question: who will advocate an agenda for grassland protection that addresses the historic injustices of colonial resettlement? In what ways can conservationists be allied with Aboriginal land claimants? In research, I found that the grassland debates emphasized issues of ranching and conservation. The issue of Aboriginal rights and title was seldom mentioned. It is a constant challenge to make the issues speak to one another – for me, in writing this thesis but more importantly for all members of the grassland debates – in meaningful, ongoing ways.
Chapter 5

Exclosures: Grassland Monitoring

Both in organic evolution and earth history, change is pretty much continuous, and its tempo, direction, and divergences are the real object of inquiry.

- Carl Sauer (1950, 16)

Introduction

Walking through the Cariboo-Chilcotin grasslands, you might come across a fenced area in the middle of the open range. The fence has no gate, or else a low, awkward square gate that a person could enter if they ducked and stepped high at the same time. The area is half the size of a soccer pitch. Inside, it looks slightly overgrown and if you were a city dweller, you might think it looked like an untended yard. If the fences are old and wooden, you could think it was a pioneer relic; there are many decomposing homesteads around. A wire fence, though, might make it look more modern and scientific. Depending on the location and time of year, there might be cows grazing nearby, and you might guess that the fence was meant to keep the cows off something. Any government signs have long fallen off or been removed.

Exclosures are areas that government officials have fenced off on Crown ranges to understand ecological change when certain variables – particularly livestock grazing – are controlled. With the early exclosures of the 1930s, researchers studied the impacts of widespread overgrazing on Crown range. These early exclosures paralleled the early rise of range science in BC (described in Chapter 2), the initial stages of experimental agriculture to improve grazing productivity. Dramatic images emerged from the Southern interior at the time showing fenced exclosures filled with grass that was (as early settlers and Aboriginal oral histories had described ungrazed grasslands) “belly high to a horse”
alongside dry, nearly bare soil on the grazed range (Blackstock and McAllister 2004). The fence line suggested a clear division between nature and humans, and between preservation and use.

In the 1990s, during an era of growing public environmental concern, 200 exclosures were added to the provincial network (Erickson 2000). It was a clear way in which new ecological ideas – the impact of the “biodiversity phase” of global environmentalism (Zimmerer 2006a) – were institutionalized in government and extended in the BC interior. Earlier conservation practice was intensified and new practices were created. There are now 361 exclosures on provincial crown range and these sites form the basis of provincial range monitoring (Erickson 2000; MOFR 2008). These sites are officially called “Range Reference Areas,” as the sites include both exclosures and marked permanent plots outside. The sites are monitored regularly by representatives from the Range Branch of the Ministry and Forests and Range and other officials. Scientific knowledge about grasslands is disseminated at exclosures, too. A provincial range ecologist told me that exclosures were useful as “outdoor classrooms where you can bring people and explain grassland processes in a practical way” (Interview 2009). Students and researchers from the University of British Columbia and Thompson Rivers University regularly receive permission to conduct research in MOFR exclosures (Interview 2009). Thus, exclosures are a key window into how grasslands are constructed as scientific objects and understood within an ecological frame.

Preliminary encounters with exclosures suggest they are defined by what they exclude: livestock and, by association, the practices of ranching. To this day, many peoples’ instinct (including mine) upon encountering these installations is to compare what is inside with what is outside, and subsequently to try to assess range management practices. This is what the physical form of these structures invites one to do. However, as provincial range officials are well aware, what is remarkable about exclosures is the way in which these small, fenced areas fail to produce clear nature/society divisions. It is not “nature inside, ranching outside.” Instead, these small plots shift complexes of socio-natural relations. In physical form they appear to be just fences, but they have surprising – and surprisingly widespread – effects. They do change range ecology, but often not in ways ecologists predicted. Cows, grasses, trees, small rodents, horses, fire (or lack
thereof), and diverse human actors are agents of unexpected change. Rather than producing pure “climax” forms of grassland vegetation by excluding humans, exclosures produce new complex socio-natural relations.

Influenced by Latour’s well-known 1993 book *We Have Never Been Modern* and through a case study of land cover change in the Godwar region of Rajasthan, Paul Robbins argues that the state’s modernist landscape planning, which is based on the goal of “purification” – clean separation of the “human” from the “natural” – succeeds in transforming the landscape, but not as intended (2005). In trying to partition nature and culture, the state instead accelerates the production of socio-natural hybrids (Ibid).

“Hybrids are inevitable,” Robbins writes, “but their rate of proliferation and trajectory of change are products of specific planning histories” (2005, 655). My argument is similar, as I explore exclosures as an attempted purification and show that these fences do reorganize socio-natural relations but not into discrete “nature/culture” categories and there are many changes that exceed intentions. At the same time, I am also interested in what different social groups make of purification attempts. Ecologists see exclosure monitoring as a basic framework around which new science can develop. Ranchers, however, perceive the disciplinary nature of these sites, the ways in which exclosures help transmit ideas about the landscape into bureaucratic apparatus. They identify shortcomings in exclosure forms and ecologists’ practices as a way to challenge the reframing of the landscapes as scientific practice, and to undermine potential scrutiny of their operations.

The idea of a network is an important tool in moving beyond nature/culture binaries; in this analysis I am influenced by Actor-Network Theory (ANT). Latour believes it is: “a great mistake to decide in advance what alliances are composed of: whether their elements are human or non-human… We have only to ask whether an association is stronger or weaker than another” (Shapin 1988, 538). Non-human actants, including everything from plants and animals to measuring instruments are integral in the development of networks (Latour 1987; 1999). ANT thus proposes the idea of “generalized symmetry,” suggesting that social scientists should use “a single repertoire to explain society and nature” (Callon 1986, 200). As such, ANT provides a framework for understanding entities – ideas, identities, objects – as products of complex relations.
In this chapter, I explore the scientific practices of grassland monitoring and the many complex socio-natural interrelationships of grasslands as networks comprised of human and non-human entities.

The chapter proceeds in three main parts. First, I describe the scientific practices through which ecologists order a very complex landscape into discrete categories for management purposes. Ecologists produce inside/outside dichotomies and the fence line is made meaningful through scientific practice. Scientific practice is structured by the demands of state management and regulation; information collected at exclosures is re-circulated as officials engage with ranchers. Second, I describe how the complex socio-natural grassland systems pay little attention to the exclosure boundaries that ecologists establish. This section explores ways in which complex networks of human and non-human nature pre-exist, ignore, and/ or challenge the meaning of the fence line. Finally, I analyze how ranchers and ecologists perceive exclosures and the scientific practices they enable. Ranchers and ecologists’ views on exclosures illustrate their broader perspectives on the meaning and function of state and scientific knowledge.

In all, I am interested in how ecological ideas travel and their impact on a rural landscape. State scientific practices are a critical relay point in the transmission of new ecological ideas about grasslands. These practices effect real change, but it is not a straightforward rationalization of nature. State representatives do not administer an abstract and external “nature”; rather, they negotiate the landscape’s meaning with many non-human entities, as well as with local people who perceive ecological changes differently.

**Producing the Fence: Exclosure Monitoring**

In summer 2007, I accompanied two range officials and four summer students on a monitoring excursion to the Snake Pit exclosure on Becher’s Prairie (west of Williams Lake, in the interior of BC). In this work, I was influenced by Bruno Latour who has been, as he says, “following scientists around” since the 1970s, conducting “laboratory ethnographies” (Latour and Woolgar 1979). Latour suggests we “go from final products
to production, from ‘cold’ stable objects to ‘warmer’ and unstable ones” (1987, 21). In Laboratory Life, Latour and Woolgar emphasize the long chain of material objects and processes that produce facts. At the end of the chain, the material objects and processes are often erased; Latour and Woolgar want to recover them (1979). In the late 1990s, Latour followed an expedition in the Brazilian Amazon, recording in detail the scientists’ work, their conversations, use of instruments, etc. in a field setting (1999). Influenced by these works, I studied state science on the ground, to explore how ecologists construct ecological facts from a very complex and unruly landscape.

The Snake Pit Exclosure

The officials parked among brown, dead pines, killed by the mountain pine beetle. I was in a hybrid SUV with one range official and two summer students. The official said there is a debate between foresters and range officials about whether the trees should be replanted. Foresters want replanting, but range officials believe that the trees are an undesirable encroachment onto rangelands, since range fires have ceased because of government suppression and the cessation of Indigenous burning. We gathered the monitoring equipment – tape measures, forms and clipboards and pencils, steel frames, camera, and field guides – and walked slightly downhill to the exclosure.

The exclosure was a 100m by 100m (1ha) area fenced with “5-strand barbed wire livestock-proof fence” (MOFR 2008). It was established in the early 1990s to “monitor range condition and trend” (Ibid). Previous monitoring took place at Snake Pit in 1995 and 1998 (Ibid). In 2006, there was a controlled burn in the area, which passed through the exclosure and there was subsequent monitoring related to that project in 2006 (MOFR 2006). On this July 2007 morning, we were going to complete routine monitoring of vegetative cover, soil condition, and other aspects of ecosystem health.

Monitoring Practice

Outside the exclosure, ecologists unrolled ten meter measuring tapes from five marked anchors. These are called “permanent transects” (Erickson 2000, 85). A set of
five transects is called a “macroplot” and there are two macroplots at each Range Reference area: one inside and one outside the exclosure (McLean and Wikeem 1983). Ecologists then placed a 20cm by 40 cm metal frame – the “Daubenmire frame,” named after the inventor of this monitoring method, American plant ecologist Rexford F. Daubenmire – at random intervals along the measuring tape (Image 5.1). At each interval where they placed the frame, ecologists looked down through the frame to estimate four components of grassland health: the incidence of certain plant species, the percentage of bare soil, and coverage of cryptogams (the delicate microbiotic soil crust) (Gayton 2003).

We then gathered and estimated litter mass. I recorded the data on a form with the provincial logo on the top left-hand corner, the “Daubenmire Vegetation Form (EM-10)” (Image 5.2). With ten intervals on five transects, there were a total of 50 plots outside the site. The student and I were responsible for the second, third, and fifth transects, as is clear from the form. In this way, we reproduced grids on the grasslands.

Image 5.1: Daubenmire Frame on Permanent Transect
The Daubenmire Frame monitoring method, also known as the “canopy coverage technique,” is the “most commonly used method of measuring vegetation in the province” (Gayton 2003, 18) and has been in use since the late 1950s (McLean and Tisdale 1972). The observer “identifies all occurrences of every species within the frame, and then makes a cover estimate for each species based on six cover classes” (Gayton 2003, 18). So, for example, in looking down on the frame, if we estimated a zero to five percent cover of *poa pratensis* (Kentucky bluegrass), we entered a cover class of “one” in the column. The goal was to produce “estimates of foliar plant cover by species… plus litter, bare ground, and cryptograms” (Erickson 2000, 85). It is at this point that a complex ecological space is translated into a series of number values. A multi-dimensional space is simplified through translation into an abstract, numerical representation.
A Social Experience

Saying that an ecologist “makes an estimate for each species based on six cover classes” is a short way to describe a complex process. The estimator must kneel above the frame and try to look directly down, straight, onto the area framed below. She is then faced with the challenge of translating a messy vegetative space into percent covers. If a person sees a small patch of *poa pratensis* (Kentucky bluegrass), she must then translate that into a rough percentage of a 20cm by 40cm rectangle, just by looking. Is it zero to five percent, or five to twenty five percent? What if a plant is directly below the line of the frame? Is it in or out? Once, the student I was working with faced this dilemma. Was the plant in or out? She decided to count it, saying, “We haven’t had one of those for a while.” The process was structured by frames and forms but also depends on the individual monitor and his or her skills and experiences at work.

I was amazed at the complexity of plants in the grasslands. A small patch that looked like it might contain two or three species might easily hold a dozen. Inside the exclosure, the officials encountered species that, even with all their expertise, they could not identify. They entered their best guesses on the forms and also took samples to analyze later. I learned that day that grassland ecologists admire grasslands for their subtle complexity. I watched as, for ten minutes at a time, the monitoring group would try to accurately identify grasses, including species found off the monitoring plots. They would compare grasses’ blades and ligules with those in the field reference guide, the *Plants of Southern Interior British Columbia and the Inland Northwest* (Parish et al 1999). I learned that for more complex work, such as on “grasses and sedges,” ecologists will often refer to the *Illustrated Flora of British Columbia*, a seven volume reference, which is kept in the central office (Interview 2009).

Re-Making the Fence: Inside versus Outside

The exclosure fence is a physical line, which represents an attempt to control a certain variable: livestock grazing. To “monitor plant community changes,” as the MOFR suggests is its goal (2009), ecologists produce a dual data set; the data collected outside
exclosures is meant to be compared to the data collected within. When these practices are repeated over time, ecologists hope to develop a picture of changing range conditions. The physical forms of exclosures – the wooden or barbed wire fences – are used in monitoring practice to produce a nature/culture dichotomy that becomes useful in range regulation. The experiment seeks to isolate variables of change, keeping out cattle in order to understand how ecological change proceeds without grazing.

To produce a meaningful picture of ecological change, ecologists needed to isolate the variable of livestock grazing. Monitoring thus had the two-part structure of the inside/outside “macroplots” described above. The data was collected in two parts. On our form, we wrote “Outside” at the top. The data collected was to represent the state of the rangeland in use; the area is under currently under active grazing lease. The range officials moved inside the exclosure to repeat the same process, assessing percent cover of different species and other indicators of grassland health. (The exclosure had no gates; they had to climb over barbed wire fences to work inside.) Furthermore, the ecologists also took photographs with marked measuring sticks, labeled with “Inside” and “Outside.” The yellow rulers show grass length on the outside versus the inside. The measurement of the grass on outside is called, “stubble height,” as opposed to the “vegetation height” within. At Snake Pit, the difference between these two sites is visible but not dramatic. In these ways, ecologists compare data on the grazed land outside with the ungrazed land on the inside. The two data sets are made meaningful through comparison to one another, and the inside/outside dichotomy is produced in two-part data collection and with photographs.

Substantial ecological changes can take a very long time. The exclosure was established in 1994, only thirteen years before this monitoring day. An ecologist told me: “the lack of change on the Snake pit exclosure is as expected. There just hasn't been enough time” (Personal Communication 2009). In general, changes are known to take much longer than ten years; a 1972 study of grasslands in the southern interior found that “little change in plant composition took place inside exclosures, placed on poor condition range, in less than ten years following fencing” (McLean and Tisdale 1972, 178). Another ecologist told me, “grasslands are slow to change, especially when they’re on the improving trend, so it’s hard to see that change and it’s hard to measure that change
because you need big changes to be really sure that there is a change there” (Interview 2007). Still, with a fence, one can expect vegetative changes but because there are many confounding variables these changes are difficult to attribute and quantify.

**A Note about Ecological Succession**

Before moving on to describe how this data is used in state management, it is necessary to briefly explore how ecologists expect these sites to change over time. Do ecologists believe that the grasslands inside the exclosure will develop toward a purely natural, climax state? The answer is not straightforward. Early range science emphasized a Clementsian ecological perspective, as scientists perceived that grasslands developed toward a single stable “climax” state characterized by the prevalence of certain species. In this view, grasslands inside the exclosure would be headed on a linear trajectory toward a vegetative climax, the ideal form for grazing and an overall management goal. There is also a concept of a “zootic climax,” a steady state obtained by proper use of the forage resource, in opposition to circumstances where “long-term overuse by domestic or native ungulates” that “results in changes in species composition and other physical effects to the environment” (Wikeem and Wikeem 2004, 49).

However, as BC grassland ecologist and writer Don Gayton writes, “few biological mechanisms can be explained by a straight line and succession is not one of them” (2003, 3). As one ecologist said, Clementsian ecology was: “very deterministic… some communities may follow that linear succession and development… but many communities do not” (Interview 2009). In an article about grassland fires, Berkeley geographer Carl Sauer also recognized that ecological change was normal. He wrote, “both in organic evolution and earth history, change is pretty much continuous, and its tempo, direction, and divergences are the real object of inquiry” (1950, 16).

Ecologists now refer to alternative explanations of succession, which recognize that communities are dynamic, that change is not linear or even-paced (Erickson 2000; Gayton 2003). In monitoring, ecologists regularly use the Potential Natural Community (PNC) concept. A PNC is “the plant community that would establish on an ecological site if all successional sequences were completed, without interference by humans, under the
present environmental conditions” (Erickson 2000, 86). Although the “completion of successional sequences” phrase is reminiscent of a climax perspective, the PNC concept is different in two ways. First, the PNC concept recognizes that sudden dramatic change, such as fire, is “normal” in grasslands. Second, the word “potential” is critical, since there is more than one “potential” vegetative community that could develop in any given site. In other words, in terms of grassland ecology, the fence line does not result in an Edenic nature, unfolding into a pure, single form. There is uncertainty about which vegetative communities will become established and for how long.

Because there is not be one climax state of grassland development, the ideal landscape form is not pre-given. So what is the ideal? One ecologist said, “We want a mosaic of seral stages for habitat” (2006). Another ecologist said: “We are getting away from condition classes based on forage to a more ecological perspective,” a process “still underway” (2007). In other words, the production of data on “condition classes,” such as that enabled by the Daubenmire method, does not reflect new changing ideals about ecological health and change.

However, Gayton writes that “even today the straight-line, single end point theory remains a very powerful notion in the study of grasslands” (2003, 3). Ecologists located exclosures on sites they perceived to be minimally disturbed by domestic livestock grazing and other human impacts: on “grassland or forested range at the most advanced seral stage, usually the Potential Natural Community” (Erickson 2000, 85).

Contemporary ecologists do not believe grasslands inside exclosures will develop toward a single climax state but still must look for indicators of improvement toward a more “advanced” seral state. The indicators of grassland health described on the Daubenmire form suggest a climax ideal. In establishing a system of provincial monitoring, the climax ideal thus remains powerful, in spite of new ideas about succession. The ecosystem inside the exclosure fence is intended to develop toward a more “natural,” ideal form.

**State Management Implications**

The range ecologists drove back with this data to the Range Branch headquarters in Kamloops. The data collected on Daubenmire forms was entered into an Axis database
of range condition and trend, inside and outside the exclosure (Interview 2009).

Subsequently, the ecologists can produce summaries in Microsoft Excel, and the summary data can then be distributed to district officials who work in the field, directly with range leaseholders (Interview 2007). (The district officials receive the data in its two categories: inside and outside the exclosure.) The research objects end up at “such a scale that a few men or women can dominate them by sight; at one point of another, they all take the shape of a flat surface of chapter that can be archived, pinned on a wall, and combined with others” (Latour 1987, 227). With printed spreadsheets – on computer screens and chapter – ecologists assess changing circumstances from afar. Data is thus centralized and made useable at what Latour would call a “centre of calculation” (1987, 217).

This data is made useful in future state interventions. Latour writes that research objects enable “action at a distance,” administration of other, non-present places from the centre (1987, 219). An ecologist told me that the Range Branch intends to produce regional overviews, summary documents about regional range condition and trend, but so far had not done so. This person said, however, the data can be useful in conversations with ranchers about the vegetative trends and the general management of Crown range (Interview 2008). An ecologist said, “If FRPA [Forest and Range Practices Act] values are not being protected outside exclosures that gives you food for thought” (Interview 2009). FRPA values are the province-wide goals for forests and rangelands, established under the 1996 and 2001 acts that regulates the responsibilities of lease holders (Government of BC 2006). These include values as diverse as soil, water, biodiversity, as well as cultural and recreation values. The data collected in exclosure monitoring strengthens the state’s position in grounded negotiations. The structure of scientific practice produces a grazing/ no-grazing dichotomy that supports state interventions.

The use of exclosures is a rationalizing simplification that supports the bureaucratic administration of grasslands. Government monitoring at exclosures is an example of what James Scott calls a “narrowing of vision,” a process of simplification that “brings into sharp focus certain limited aspects of an otherwise far more complex and unwieldy reality” (1998, 11). Scientists, representing the state, must frame the landscape – a complex, socio-natural space – in terms of certain manageable variables. These
simplification practices make the landscape “legible” to government, in order that it can be administered from afar. Exclosures enable government ecologists to produce simplified facts about “nature” at sites, and then this data is used in range regulation.

**Fence-Crossings**

Through structured state scientific practices, government ecologists simplify the grasslands into separate areas of human use and areas excluded from human use. Discrete facts about vegetative change are constructed from a complex space, using measuring tapes, frames, data charts, reference guides, etc. But these scientific interventions are relatively small in time and space on a large and complex grassland. What are the material processes and entities behind or outside this data? What effect is produced when one emphasizes the complex relations among many human and non-human entities? In this thesis, I have noted conservation’s emphasis on “rationalization,” the goal of rational administration of human-nature relationships. However, in this section I introduce some of the great socio-natural messiness with which ecologists contend. Not only do ecologists’ interventions at exclosures fail to quell this messiness, they further perpetuate it. The administration of nature is not a stable, permanent achievement of an external nature but an ongoing negotiation among many socio-natural relationships.

In this section, I explore ways in which socio-natural entities and relationships cross, ignore, undermine, or otherwise challenge the exclosure fence line. The meaning of these grasslands is ever-changing and produced by many actants in complex ways. I introduce four socio-ecological relationships that cross or challenge the exclosure fence line: fire, grazing, tree encroachment, and cowboys and their horses. Non-human animals are active participants in these fence-crossings, often causing unexpected change. Furthermore, many people challenge exclosures and the construction of a nature/culture division. As well, government science is a recent arrival on these grasslands, which have an extensive human history. Through this analysis, it is clear that ecologists work in a
very active material world that is never purely natural or social, and often pays little attention the boundaries they establish.

**Fire**

Fire is perhaps the biggest challenge to the inside/outside dichotomy of exclosures. Changing ideas about fire in settler society clearly demonstrate ongoing negotiation between humans and nature, and between different social groups. The middle Fraser is the traditional territory of the Secwepemc, St’at’imc and Tsilhqot’in First Nations, who burned grasslands regularly to ease travel and encourage the growth of certain plants (among other complex reasons) (Blackstock and McAllister 2004; Gayton 2003; Powell 2005; Turner 1997; Wikeem and Wikeem 2004). Fires also prevented forest encroachment and in-growth and maintained open grasslands, and since the cessation of burning, tree growth has been extensive (Blackstock and McAllister 2004; Turner 1997, 1999). This landscape has been a human landscape since time immemorial; it only exists because of Indigenous management. Therefore, what develops inside an exclosure fence will not necessarily result in a return to a pre-grazing, “natural” community, nor reflect a non-human, unmanaged nature of the past. In the Cariboo-Chilcotin, there is no pure “natural” or “non-human” grassland form outside human intervention.

Historically, many settlers and scientists perceived Indigenous burning as irrational or reckless. Forest ecologist James Agee notes that “for many years, analysts dismissed the possibility of sophisticated resources use or activity by Native Americans” (1993, 55) and BC ethnobotanist Nancy Turner notes that “foresters and rangers have often regarded aboriginal landscape burning as ‘careless’” (1999, 201). A rancher I interviewed was skeptical about the intentions behind Indigenous fire-setting; he said “Indians just like fire” and that he knew plenty of “Indians” who liked to “light a huge bonfire and sit twenty feet back” (2007).

Other settlers and scientists ignored Indigenous burning altogether, considering fire a natural, non-human phenomenon, within which Indigenous people played a small, (usually accidental) role, often not worth mentioning. A 1980 study at Dester Ridge near Riske Creek found that no fire had occurred since 1926, but fire suppression was “not
organized in this area until 1961” (Strang and Parminter 1980, 16). If fires likely occurred every seven to ten years, what caused the lack of fire between 1926 and 1961? The authors conclude that “since the weather during these 51 years has not been exceptional, the absence of fire is also attributed to a reduction in litter accumulation” (Strang and Parminter 1980, 16). Indigenous burning – which declined as a result of new regulations and reserve creation – and its cessation are not mentioned once in the article. Fire is something that happens largely because of non-human processes.

However, historians, anthropologists, and ecologists now recognize that Indigenous people burned extensively and with intent to produce specific ecological changes. These scholars use words like “consciously,” “purposefully,” “rational manipulation” (White 1999, 43), and “controlled” and “deliberate” (Turner 1999, 193). Although records are “scattered and sparse” and do not prove universality of controlled Indigenous burning, the “range and extent of the records indicate more than just casual or sporadic use of fire to enhance local resources” (Turner 1999, 180.) Indigenous knowledge about the uses of fire has been recorded in recent oral histories (Blackstock and McAllister 2004; Laforet and York 1998; Turner 1999). Grassland fires are part of a complex Indigenous culture, inseparable from human occupation and use. The state cannot monitor or administer “grassland fire” as an external, non-human event. Human uses and the extent and intensity of grassland fires are inseparable.

The BC Fish and Wildlife Branch and the BC Forest Service now actively use fire as a management tool. Wikeem and Strang write that government’s “specific objectives have varied slightly from one region to another but, in general, these have been to increase forage production and quality, control undesirable plant species (notably big sagebrush) and to alter the botanical composition of the plant communities for the benefit of California bighorn sheep… in the Okanagan and Chilcotin” (1983, 3). They set “controlled” or “prescribed” burns on rangelands; the very terminology of these interventions demonstrates a desire to rationalize unruly fire. The word “controlled” suggests a controlled experiment, where one variable – fire – is introduced. There are, however, times when fires escape; ranchers and ecologists told me about a prescribed burn in the Junction Sheep Range that got out of control and swept through a much larger area than ecologists intended. Furthermore, post-burn ecology is still new to many
ecologists. In these ways, fire is unpredictable in its intensity, scope, and ecological impacts.

New research and monitoring practices are required for state ecologists to work with fire on grasslands. In 2006, there was a controlled burn at Becher’s Prairie that sought to curb tree encroachment (MOFR 2006). This fire went through the exclosure. “I was there after the fire,” an ecologist said. “It [the exclosure] was still smoldering” (Interview 2009). Ecologists still study the different impacts and recovery rates inside and outside the fence (MOFR 2006). However, they also created a third monitoring site – point frames outside the exclosure – in an area that was not burned. (These are visible at the centre of Image 5.3.) Ecologists have thus changed their monitoring practices to reincorporate fire on grasslands. Their work continues to adapt to accommodate fire, a socio-natural force that greatly impacts the plant communities they study. State scientific practices continue to adapt, demonstrating an ongoing relationship between forces that are never purely natural or social.

Image 5.3: Becher’s Prairie Exclosure (with point frames)
Cattle Grazing

The Range Branch is responsible for monitoring and assessing range use by cattle; this is a central purpose of the exclosures. However, because of the history of long and intensive grazing on many BC rangelands, it is very difficult to distinguish contemporary impacts. Range researchers and officials agree that domestic livestock grazing dramatically impacted grasslands. BC ranching developed to feed gold miners after the 1858 gold rush and soon many ranges were overgrazed (Bawtree 2005; Mather 2006a; McLean 1982). As Dr. Brink said, “you can’t imagine what some of these ranges were like by the 1920s… There was so much dust. Dark, black dust” (2007). Becher’s Prairie, where the ecologists conducted the monitoring described above, has been a site of grazing since the 1860s. One interviewee said that in the 1920s at Becher’s Prairie “you couldn’t find a blade of grass” (2007). When most exclosures were established in the early 1990s, grasslands had experienced widespread livestock grazing – to some degree or another – for well over a hundred years.

Exclosures are set on top of these grazed grasslands (Packham and Dunsworth 2005, 3). In many cases, ecologists seek to establish exclosures on “minimally disturbed” sites (FPB 2007). Exclosures are used as surrogates for “ecological site descriptions” – scientific descriptions of ideal vegetative communities. But are exclosures representative of an ecological ideal? In 2007, authors of a widely-publicized BC Forest Practices Board (FPB) report analyzing 48 exclosures found that that at 81 percent of sites, vegetation both inside and outside the exclosures was both below “site potential” (FPB 2007). The Vancouver Sun reported the findings, saying that “years of grazing have left some areas with only a single species of grass – Kentucky bluegrass,” an undesirable species (Simpson 2007). Thus, though the historic impacts of grazing are debated, but it is clear that BC’s long grazing history has significantly changed grasslands. Historic grazing clearly crosses the fence line.

Contemporary cattle grazing also challenges exclosure science. If there was one thing meant to be on the outside of exclosures, it is cows and cows, in general, do not cross the fence line. However, the fence line changes cattle movement; the very presence
of the research plot changes grazing impacts. This undermines the meaning of the fence as a scientific experiment into grazing pressure. A rancher said:

The value is not looking down the fenceline and comparing one side to the other because invariably, cows or stock will come up against this and they got a trail along the side of these things. ‘Well, look at the difference!’ Yeah, well there’s been 5000 hooves gone across that. But it does give that definitive line. But it isn’t a definitive line that means anything because that isn’t grazing pressure; that’s been a physical barrier to their movement because they hit it and walk along it.

In an open field, cows might walk more evenly across the space. However, when they come up against an exclosure fence they walk around it. This is an impact that does not relate to the usual grazing habits of cows; the grass around the exclosure is more heavily worn. Ecologists cannot compare a “natural” state on the inside, with a “grazed” state on the outside, since the “grazed” state is changed by the existence of the fence. An ecologist said that ranchers are “right about that,” but “We are aware that cows walk the fence” (2008). He noted that in monitoring ecologists do not put the anchors right beside the fence; they leave a space. In this way, the grazing habits of the cattle – the impacts the ecologists are trying to study – are changed by the experiment itself. As a result, the experiment has to accommodate cattle behavior, demonstrating an ongoing negotiation with non-human actants in the landscape.

In exclosure research, cows are the human-produced disturbance to be kept out of exclosures; they are on the “culture” side of the fence. But are cattle entirely human products? Watching a herd of black steers, American writer Annie Dillard thought so, writing: “They are a human product like rayon. They’re like a field of shoes” (1978, 6). Certainly the interventions into cows’ genetics are extensive. A range ecologist told me that cattle in BC have grown far larger and now consume twice as much grass per unit than before, and that the Range Branch had to change its unit of measurement to volume of forage rather than per animal (Interview 2009). But cattle are not entirely human products. Many cows in the Cariboo-Chilcotin are Herefords (Kerr 1991). Though it is difficult to imagine, Herefords (like all bovines) are likely descended from the aurochs of...
the Indian subcontinent, then domesticated on the Mediterranean Coast between 5,000 and 10,000 BC (Felius 1985). The breed then originated in Great Britain in the eighteenth century – when most breeds emerged, as Europe’s Industrial Revolution created demand for more productive animals (Felius 1985; Heath-Agnew 1983; Willham 1937). Though cattle have been so long produced as commodities – human products of exchange – they are also sentient animals. Even their grazing habits, what exclosures exclude, cannot be considered a purely human impact. Grazing impacts are products of complex socio-natural histories and ecologists’ attempt to isolate variables highlights the dense interweaving of human and non-human elements over histories more than ten thousand years; cattle are hybrids. Currently, their habits and hungers help shape emerging ecological knowledge on BC rangelands. Even cattle grazing is not an “unnatural” variable that the state can exclude and administer.

Tree Encroachment

Tree encroachment and in-growth are the largest threat to grasslands in the Cariboo-Chilcotin; ecologists estimate that open grasslands have been reduced by approximately a third since 1962 (CC GSWG 2001, 4; Interviews 2006-2009). The involuntary cessation of Indigenous burning is the main cause of forest encroachment regionally (CC GSWG 2001). However, “tree encroachment/ forest in-growth is a very complicated issue and the cause-effect is often a source of disagreement among researchers” (Bai et al 2004, 67). The vegetative dynamics are influenced by “fire suppression, human disturbance, climatic variation, livestock grazing, and interaction of these factors” as well as “topographic factors such as slope, aspect and elevation” (Ibid).

For many years, ecologists have believed that cattle grazing promoted tree growth on rangelands by removing the grass and tilling the soil with their hooves (Rummel 1951; Strang and Parminter 1980; Tisdale 1950). Strang and Parminter reported that “grazing by domestic animals can have a two-fold effect on grass x tree interactions – by removing grasses and herbs it eliminates the trees’ competition and, by trampling and tilling, hoof

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55 The breed was brought to North America via Maine in the early nineteenth century (Willham 1937) and within 100 years “became the major beef breed” on the continent (Felius 1985).
action exposes soil and provides a suitable seed bed for invading seeds” (1980, 16). For many years, ecologists perceived grazing as a main culprit in tree encroachment and in-growth.

But if grazing causes tree encroachment, what happens when there are more trees inside an exclosure than outside? Established in 1923 (to study the relationship between grazing and grasshopper infestations), the Toosey exclosure is the oldest in the region and at Toosey there are, quite clearly, far more trees inside the fence than out. A rancher told me a story of a provincial official who was certain that grazing caused tree encroachment, and thus faced a big challenge when he saw the Toosey exclosure:

I remember all of us clambering out and Highway 20 was a gravel road, and walked over to that site, and somebody said, ‘It’s interesting how the pine regeneration inside is quite a bit greater than outside.’ And somebody said, ‘Yeah, but there’s been no grazing inside.’ … ‘You know I always thought overgrazing caused tree regeneration.’ And [provincial employee] said, ‘Well, yeah that’s true. Cattle grazing does cause that. But in this case, well, that’s just a biological anomaly. And I thought, ‘Every time I see something now that you can’t explain, and it isn’t to your benefit to explain it in an appropriate way, well, that’s just a biological anomaly. It was such a great line. I thought, ‘Where did this guy come from?’

The rancher laughed as he told me the story. The official, wanted to blame cattle for tree encroachment and so the only way he could characterize what he saw was as a “biological anomaly.” The word “anomaly” is telling. In Thomas Kuhn’s 1962 classic book, he argues that the appearance of too many anomalies in a well worked-out theory of the world can signal that the theory is headed for crisis (Hacking 1983; Kuhn 1962).

Many ecologists now believe there is “not a clear correlation between grazing and encroachment” (Interview 2007). The impacts of livestock are only one source of vegetative change in a very complicated system. There are many confounding variables; for example, contemporary ecologists argue that cows do damage trees (although they do not eat seedlings, like sheep and goats do) and therefore may partly inhibit in-growth by “discouraging tree seedling survival” (Gayton 2003, 12; Interview 2007). There are also
the other biotic and abiotic factors – topography, human disturbances, etc – described above.

So what might be the cause of the forest in-growth on the Toosey exclosure? Ecologists are developing new hypotheses. For reasons that ecologists do not fully understand, exclosures become preferred habitat for small mammals such as meadow voles. In conversation about the Toosey exclosure, an ecologist told me that:

It really seems that small mammals concentrate in those exclosures, so you get side effects that don’t really have anything to do with grazing. So it doesn’t seem like the plant community [at Toosey] is as far along as you might expect, serally, given how long it’s been an exclosure.

In other words, small mammals change the trajectory of vegetative change. For reasons only partly understood, small mammals prefer exclosures for habitat. There is some knowledge about meadow voles’ habitat preference; for example, Conley et al reported that meadow voles “require 20-41 cm of vegetative cover and litter” (1976, cited in Hoodicoff 2005). In addition, it turns out the small animals might actually increase the problem of tree growth. One ecologist told me that meadow voles “chew up the ground and create a seedbed” (Interview 2008). The ecological impacts of animals on tree encroachment are debated among ecologists, but clearly confound the inside/outside exclosure dichotomy. Exclosure fences cause unexpected changes, including creating habitat for rodents who encourage tree growth. Ecologists, aware of meadow voles’ incursions, are now beginning to ask questions about their habitat preferences and behaviors. The meadow voles’ disruption of the developing encroachment science demonstrates the ways in which non-human actants are active participants in the ongoing production of science and the human understandings of the landscape. State science is disrupted, and must adjust and accommodate unexpected rodent activities.
Sometimes, ecologists note, exclosures are “breached,” or vandalized. One ecologist noted that sometimes, because exclosures “show the contrast between inside and outside,” ranchers do not like them (2009). I did not hear specific stories of ranchers who vandalized or removed exclosures, though a rancher and an ecologist I interviewed both suggested it might have happened. That said, there are stories of cowboys – ranch employees – putting their horses inside the fences (Interviews 2007). Interviewees debated whether cowboys had ever used the Toosey exclosure as a horse coral. An ecologist told me that the exclosure had a “sordid history,” and that cowboys used to put their horses in there (2007). I asked a rancher if there were horses in there at some point. He said: “I’m not sure that’s true. Just knowing what the fence was like when I first came here. It was a pagewire fence. There was no gate. And it may have been down a couple of times. And I’ve kind of heard that story, too. But it’s kind of a common story, you know, in this country and they’ve set up more and more of these exclosures” (2007). At Toosey, the extent of livestock or horse grazing inside the exclosure is a source of debate.

But a rancher told me of a local cowboy who was frustrated with having no gate on an exclosure elsewhere. Without a gate: “it can be annoying if something gets in there. Then you’re in a bind” (2007). The cowboy put in a gate and then put his horse in there. An ecologist said knew of this incident, saying, “We have pictures of the horse” (2009). There are other such stories elsewhere about how cowboys resisted range ecologists’ attempts to exclude disturbances by becoming disturbances – social and ecological – themselves. Cowboys are known to have subverted the intended meaning of the exclosure fence line. The historic and contemporary extent of such exclosure “breaches” is not well-known. These breaches are a mixed human-animal disturbance, a form of resistance to state rationalizations. They clearly confound ecologists’ attempts to isolate variables. At the same time, they gesture toward the issue I next describe: different social perceptions of the function and meaning of scientific practice on BC grasslands.
Perceptions of Ecological Complexity and Change

Ecologists were well aware of the fence-crossings. As described above, ecologists knew about cowboys and horses, about meadow voles and how cows walk the fence. After we did the required monitoring, the ecologists spent a long time comparing grass ligules (the small point at the end of the stem of the grass, beside the blade) trying to identify a species they had found outside the monitoring plots. They also talked a great deal about fire and tree encroachment. They are not only aware of this complexity; it often appeared to be what they appreciate most about their work: trying to understand complex ecological change. Meditating on finding a patch of endangered blue gamma grass, one BC ecologist writes, “I am pleased to be witness to a small part of the buzzing and almost unimaginable complexity that is the grasslands” (Gayton 2003b, 4).

I described exclosure monitoring as a process of simplification, an example of what James Scott calls a “narrowing of vision,” a process of simplification that “brings into sharp focus certain limited aspects of an otherwise far more complex and unwieldy reality” (1998, 11). Scientists, representing the state isolate certain variables. But simplification is only part of the story of scientific practice. Ecologists learn from the landscape in ongoing ways. If I were to focus on simplification alone, I would miss the ways in which ecological knowledge is also dynamic, formed in ongoing relation with the landscape. The ecologists I interviewed were very aware that their scientific practices were situated in a very active, complex material world. One said: “The more monitoring I do, the more I realize that it’s just a fallible process. No matter what you do, you’re still making an estimation when you’re looking at grasslands, and it’s subject to bias of who I am on that particular day, what the sunlight is like, how much rainfall there was that year” (Interview 2007). To this ecologist, monitoring was a situated, uncertain process. Similarly, another ecologist said: “Sometimes us range ecologists don’t even agree what we’re looking at” (Interview 2007), acknowledging the role of uncertainty in assessing range conditions. Ecologists know that their attempts to rationalize the landscape are always partial and context-dependent. Still, from a complex social experience of working on grasslands, ecologists produced numbers representing indicators of grassland health.
“You can’t export data,” one range ecologist said. “Everything has to be interpreted in the context of what is happening on the ground, the circumstances, and what you want to achieve” (Interview 2009). In this sentence, a remarkable contradiction of state ecological practice is captured: state ecologists are wary of “exporting data” but it is also a necessary part of their work. Human social life necessarily involves simplifications and as far as simplifications go, ecology is a complex one, interested in webs of relations among human and non-human nature and grounded in “circumstances,” in “what is happening on the ground.” Certainly, all ecologists I encountered were quick to note limitations, anomalies, and potential biases in their studies; in doing so, they were cautioning against using data without explaining its conditions of production.

I described above how a range official said that the lack of change in the Snake Pit exclosure was “to be expected.” This same official noted that the species developing in the area are not what Range Branch staff anticipated: “The change in fescue is bothersome. I expect it to increase with time, but it appears to have disappeared in 2007. This could be a drought thing or observer bias. It is hard to tell at this point” (Personal Communication 2009). The species composition of the exclosure did not follow the trajectory of change ecologists would expect. He was highlighting a surprise in the data as a way of re-grounding it in its specific circumstances. The phrase “It is hard to tell at this point” suggests future research, an unfolding of greater scientific knowledge about processes of grassland change.

Exclosures are not definitive representations of change, but key sites that ground a developing body of ecological knowledge. When anomalies or difficulties surface – meadow voles move in, tree encroachment is greater inside the fence line, cows “walk the fence” – new projects and lines of analysis develop. Ecologists are not closed-minded automatons, executors of state rationalizations. Even though some forms of ecological change are perceived to be more ideal, ecologists are aware that ecological change is non-linear. They learn from the landscape in ongoing ways. Furthermore, the Range Branch is
a small group of officials, many of whom visit sites repeatedly over the year.\footnote{District Foresters at the Range Branch offices throughout the province, therefore, are responsible for the “management, allocation, and improvement of the Crown range” (McLean 1991, 8). The Range Branch currently employs 77 people provincially, 51 of whom are field staff (Ministry of Forests and Range 2010).} In this sense, the knowledge they develop is also “local,” and specific to circumstances.

However, in some ways, ecologists do “export data.” Necessarily, the structures of scientific practice produce an alienated “nature” from complex socio-natural relations, and data which enables management at-a-distance. According to the MOFR, the purpose of the Range Reference Area program (once the program is established) is to “monitor plant community changes” and “share range inventory information with range program staff, other government agencies, and the public” (MOFR 2009). These goals are met through the scientific practice I described above – monitoring and dissemination. There is thus a strong contradiction between the ecologists’ views – their experience of grasslands as complex socio-natural systems – and their jobs that could only be resolved through the structures of state scientific practice.

**Ranchers and Exclosure Data**

As I described in Chapter 3, ecologists and ranchers know many of the same things; their knowledge overlaps a great deal. Both groups are interested in grassland health and productivity – as one rancher said, “We all want more grass” (2007). At the same time, there are critical differences in the way ranchers and ecologists experience grassland science. An ecologist told me that many ranchers do in fact like exclosures, because it proves that they are “doing the right thing” (2007). Also, this person said that sometimes ranchers are the first to report if a fence is down. There is likely more cooperation and understanding than I perceived, and next report.

However, ranchers are skeptical of research at exclosures. They experience the impact of scientific practice when it comes back in the form of scrutiny of their land management. As I described, the data is collected at the Range Branch in Kamloops and is redistributed to local officials. Two quotes illustrate ranchers’ wariness of state scientific practice. First, a rancher, challenging ecologists’ quantification attempts, said: “It’s immeasurable. And all they need to do is pack that ruler in their back pocket and..."
they got her done. But as being truly reflective of utilization, it’s just not” (2007). In this rancher’s view, exclosures could be used as a shortcut to real ecological knowledge, a structured measuring device that precludes meaningful engagement with the landscape. The fact that the ruler is in a person’s “back pocket” might suggest a facile and lackadaisical approach to grassland knowledge, as if a person might casually decide to jot down a few measurements.

Second, another rancher said that exclosures can: “certainly be overemphasized and utilized to a point they don’t deserve. Like, given more emphasis than they deserve” (2007). He recognized exclosures’ usefulness, but thought that the data produced did not represent the complex relationships between grazing and grassland health. In what ways were exclosures “overemphasized”? Unfortunately, during the interview, I did not ask the rancher to elaborate. It could be that, in this rancher’s experience, government officials leaned too heavily on exclosures to inform their opinions or make arguments about the overall condition of the range.

Taken together, these two quotes suggest that ranchers perceive the bureaucratic structure of ecological monitoring at exclosures. Exclosures could be a shortcut to real ecological knowledge, a way of abstracting small parts of the landscape and then circulating them in a bureaucratic network of knowledge, without knowing the circumstances or overall significance of these statistics on the ground. Second, these sites are given too much meaning in discussions of grazing and conservation. Ranchers perceive the bureaucratic apparatus behind these sites and the knowledge that develops there. I described in Chapter 3 how ranchers are wary of a growing body of grassland knowledge developing in academic-bureaucratic networks. They are concerned that the social meaning of grasslands is being increasingly determined in a realm outside their control. This trend was also evident in ranchers’ perceptions of exclosures.

Conclusions

Exclosures are a main source of grassland ecological knowledge in BC. In this chapter, I have explored grassland exclosures as a window into how the state monitors
and administers a large and unruly landscape. I was interested in the specific processes through which government representatives produce knowledge about the landscape. Examining exclosure monitoring, we can see the specific ways in which ecologists “narrow their vision” – as Scott writes (1998, 11) – to represent certain aspects of a very complex socio-natural system. Monitoring practice produces the fence, creating an inside/outside dichotomy along the fence line. Marked anchors, metal frames, and columns on monitoring sheets enabled ecologists to construct facts from a complex system. The meaning of these facts is produced in a two-part dichotomy, when inside is compared to outside. This data is then centralized in Kamloops and re-circulated as part of a state management regime. The embodied, material practices of state science thus produce the idea of an external nature, an ecological space that can be administered by government.

And yet, when we focus on the material networks that circulate around exclosures, we see interrelationships rather than top-down, state domination. “Natural objects are naturally recalcitrant,” Latour writes. “The last thing that one scientist will say about them is that they are fully masterable” (2000, 116). Exclosure fences are consistently crossed and undermined by many complex socio-natural networks. Influenced by ANT’s emphasis on complex relations among many human and non-human “actants,” I described dynamic socio-natural networks as “fence crossings.” None of these fence-crossing relations – fire, cattle grazing, tree encroachment, and cowboys and their horses – can be separated into either nature or culture. The nature/culture divide that ecologists produce through scientific monitoring practice is constantly challenged and undermined by actants in complex networks. Change at these sites is non-linear and continuous.

This detailed analysis of grassland exclosure monitoring suggests that rational, top-down state management of a natural landscape is an idea that must be produced in practice. In the middle Fraser and Cariboo-Chilcotin, government presence is relatively thin. Exclosures are small interventions spatially, and sometimes gaps of five years or more occur between government monitoring sessions. Meanwhile, seasons, ecologies, and ranching practices shift and transform. Emphasis on fence-crossing relationships suggests spaciousness around state practice that might not be evident if I had focused my
analysis on its written policies or theories of state function. Scientific monitoring on the landscape is one set of processes among many, and state knowledge of a territory does not exist as a pre-given fact. We can see how idea of the control of territory is produced in practice: materially and selectively.

Ranchers and ecologists perceive exclosure monitoring differently. Ecologists were interested in the complexity and dynamism of ecological sites and were wary about “exporting data” – transmitting ecological knowledge without qualifications and references to circumstances of production. It is only through structured state practices, therefore, that ecology – an inherently complex, site-specific discipline – circulates in abstract “purified” forms. Meanwhile, ranchers were skeptical of official’s ability to visit sites and gain meaningful knowledge about overall range use and land management practices. Both groups were aware that there is no linear, straightforward human-nature relationship that determined ecological change.
Chapter 6

The Churn Creek Protected Area

Introduction

The Churn Creek Protected Area (CCPA) lies about 60 kilometers southeast of Williams Lake on the West side of the Fraser River. From Williams Lake, it is a two-hour drive on gravel roads. On the day I first visited Churn, in 2006, it was sunny and the roads were dry and dusty. We drove through the Alkali Lake Ranch and the Dog Creek Indian Reserve, and then descended to the Fraser River and crossed over a bridge into the protected area. We soon spotted bighorn sheep on a rocky scree above the road. We came to a double-sided sign beside a tall stone cairn. On one side of the sign was the BC Parks map with the roads, boundaries, and facilities (Image 6.1). On the other side was an image of the biodiversity of the region, which read: “Grasslands are unique areas, home to many species of birds, plants, and animals found nowhere else in BC. Help protect this important habitat!” (Image 6.2). The sign held images of bighorn sheep, mule deer, woodpeckers, and bats, as well as the area’s flora.

Image 6.1: BC Parks Sign at Churn Creek, Side A
Nearby, we saw a driveway that had been blocked off with rocks and yellow police tape. Looking down, we could see that the driveway ended in what looked like a makeshift camp on the bank of the Fraser River, with abandoned tarps, chairs, and sleeping bags. It was empty. Someone later told me that the camp was set up by members of the Canoe Creek band, who live on the reserve just on the other side of the river, and that the camp would likely be dismantled once the BC Parks officials showed up, but another person told me that the camp was related to the activities of people who held a placer mining claim on the riverbank. We saw a family of four riding their bikes along the main road. We eventually reached the headquarters of the Empire Valley Ranch, the only working ranch in BC that lies inside a protected area.⁵⁷

⁵⁷ Other protected areas allow grazing, but only at Churn is there a ranch with haying operations and irrigation (Interviews 2007).
My experience of this very socially and materially diverse place comes about twenty years after large-scale debates about protected area creation. During the 1980s and 90s, environmentalists advocated for the creation of a national park at Churn Creek. The region represented an important eco-region in the Parks Canada System Plan: Region 3, the Interior Dry Plateau (Parks Canada 1997). A conservationist said, “There was a real logic to it” (2007). But as conservationists encountered opposition from ranchers and other interests at the Cariboo-Chilcotin Commission on Resources and Environment (CORE) roundtable, it quickly became clear that there would be no national park in the region (Interviews 2007). Eventually, in the land use plan, the area was regulated as the Churn Creek Protected Area, a Class B provincial park (CORE 1994). Then, in 1998, the Province purchased the Empire Valley Ranch, and put out a call for bids from potential operators. There is now a working ranch – complete with haying operations and irrigation works – inside the protected area.

Behind this unique arrangement, this new set of relationships in physical space, there is a story of conservation and social conflict. Some conservationists felt that they failed in their mission. One said regarding the decision regarding CORE process and its decision about Churn: “It was all backroom deals with industry. We just had to wash our hands of it. Walk away” (2007). The pure idea of a National Park – a big government intervention, an environmental success story – somehow became a big mess. It became a huge social conflict and the outcome was not just a failed or watered-down version of what conservationists proposed, it was something new, produced in ongoing negotiation with many people and the landscape itself. Today, the CCPA’s material form is a great disappointment to some people who initially proposed a national park.

In this chapter, I explore how Churn became reinvented as a conservation space and with what consequences. First, I outline how the idea of a park at Churn underwent five broad stages of negotiation: state planning, conflict during CORE, protected area creation, the purchase of the Empire Valley Ranch, and management planning. At each stage, the region becomes an object of intensifying bureaucratic and scientific scrutiny. In a second section, I describe how the CCPA is regulated and monitored. The Empire Valley Ranch is under more government scrutiny than any other ranch, and the protected area receives the highest level of attention from regional BC Parks staff. At the same
time, the reinvention of Churn as a conservation space has resulted in its recreational overuse. Thus there is a contradiction in the regulation of the area: a large regulatory burden falls to the ranchers, while hundreds of hunters drive through the area with rarely anyone to monitor them. The shortcoming of conservationists’ interventions at Churn justified new activities in the protected area and elsewhere.

Thus I argue that, though it may have failed on its stated environmental goals, the protected area nevertheless resulted in the increasing capture of the area in scientific and bureaucratic discourse. Even though the conservation ideal became greatly compromised in practice, it has helped to put Churn Creek on a political map in new ways and with social consequences. This argument relies on theories of eco-governmentality, which help elucidate the power of discourse to regulate people and nature. Conservation initiatives remapped the landscape and enabled new forms of intervention. Churn became a planned landscape and all its social uses were categorized and reorganized.

Churn Creek becomes a different place – materially and discursively – because of the new governmental activities there. The protected area compromise appears to be a stable order, and many activities are undertaken on that assumption. State conservation practices produce the idea of a “rationalized” territory, a new and planned arrangement of the human-nature relationship. However, this kind of reorganization is always partial and ongoing, never hegemonic or complete. A discourse, as a mode of ordering: “is always limited. It sometimes generates precarious pools of apparent order” (Law 1994, 21). New orders are constantly changed by the material relations among many entities. Territories are never brought fully under control and government and scientific activities do not produce a simplified, organized, rationalized landscape. The creation of the CCPA cannot be understood as problem definition and solution; rather, there are infinite iterations of order over time, through constant social adjustment and conflict. Governmental activities are only part of the story in a unique rural landscape where many people continue to negotiate the social meaning and appropriate uses of the grasslands.
From Ranch to Protected Area

Churn Creek is a freshwater creek that flows from high in the alpine, through forest landscapes, and into the west side of the Fraser River. (Image 6.3 shows the mouth of Churn Creek where it flows into the Fraser River and, beyond, the former ranch lands that are now part of the protected area.) Near the Fraser, on both sides of the creek, are wide reaches of low elevation grasslands of blue bunchgrass and sage. The area has been characterized by large-scale ranching properties since the late 1860s. The properties’ boundaries and ownership have shifted but, in general, the south side of Churn Creek was grazed by cattle from the Empire Valley Ranch, and the north by cattle from the famous Gang Ranch. These were private lands, with large attached Crown grazing leases, and these businesses were regulated in their range management activities by the Range Branch in the Ministry of Forests. As I described in Chapter 4, Aboriginal people often worked on these ranches as cowboys, irrigators, and other labourers, and also continued some traditional uses of grasslands, including hunting and collecting plants and medicines (though these uses were limited and circumscribed by cattle grazing and ranch fencing) (Palmer 2005). However, beginning in the 1970s, a wide range of new activities re-mapped the region as a site of ecological concern, enabling new interventions in what had been primarily a ranching landscape. The outcomes of these interventions did not match the ideas of their initial proponents, but still enrolled the region in a bureaucratic, ecological discourse. At each turn, conflict arises and the limitations of state knowledge and practice are revealed. The government responds with new mapping, planning, and research. These initiatives are often prompted by people and the specifics of the landscape, demonstrating ways in which the state negotiates the meaning of a region with many human and non-human entities, rather than simply administering it top-down or from afar.
Image 6.3: Churn Creek flowing into the Fraser River
Ecological knowledge production can have the same rationalizing, simplifying effect, by organizing the landscape in new ways, such as into ecological zones that then determine its administration. In this re-mapping, certain ecological characteristics of the landscape are emphasized, while other social, cultural, and even different ecological characteristics are overlooked or deemphasized. Between 1970 and 1990, government initiatives resulted in a re-mapping of BC, as federal and provincial agencies produced simplified representations of the province as ecological zones and regions. These initiatives created Churn as a significant and rare ecological space, and put it on the environmental protection agenda in new ways, and thus created new opportunities for intervention in what had been a long-term ranching landscape. An ecological re-mapping of this rural, remote space produced impetus for change. These rationalizations of the landscape resulted in material changes, as park advocates began to push for protected area creation.

Initially, the explicit political push for a grasslands protected area came from a federal agency, Parks Canada. The Parks Canada System Plan, a nation-wide planning tool, divides the country into eco-regions (Parks Canada 1997). The purpose of the Plan was to identify significant natural landscapes in need of representation in a park system; the eventual goal was to have a national park in each eco-region (Ibid). Park planners begin to narrow in on where and how a park should be created. The Systems Plan showed a clear gap in landscape representation in the Interior Dry Plateau region of BC, an area known as Eco-Region 3 and so the next step was to develop a more refined mapping of the region. In the early 1970s, Parks Canada conducted its first of three regional assessments in the Interior Dry Plateau. Since this was “pre-satellite days,” Parks representatives (often consultants) had to “do a lot of flying” (Interview 2007). They were developing a view of the landscape from above. One person involved in this work said, “it’s a lot of field work” to identify “areas that best represent that natural region and are still reasonably natural” (2007). Three large-scale studies were conducted between the 1970s and 1990s (Interview 2007). An interviewee said: “All of these studies consistently pointed to Churn Creek as the best example of grasslands that best fulfilled that park criteria. Churn Creek has always been number one” (2007). The initial study area at Churn Creek was huge, approximately 5000 square kilometers (Interview 2007). It
“included all of the Empire Valley and the Gang Ranch, Chilcotin River, Fraser Canyon and not the Fraser Canyon on the west side, but over on the east side of the river, to the break” (Interview 2007).

After identifying Churn Creek as a priority for protection in its national system, Parks Canada planners began to advocate for a park in the area. Then, in the early 1990s, BC’s ruling New Democratic Party established a multi-stakeholder land use planning process to address widespread social conflict over land and resource use: the Commission on Resources and Environment (CORE). The central idea of CORE was that at regional roundtables, diverse interest groups would negotiate land use plans with areas zoned for different uses. Parks Canada went to the table to advocate the creation of a protected area at Churn. By this time, the proposed area was 2,017 square kilometers but still incorporated most of the Churn Creek watershed (Parks Canada 1994, 2).

It was at CORE that Parks Canada’s mapping of Churn as a conservation priority intersected with the Province’s own approach to protected area creation. One major institutional innovation at CORE was the Protected Area Strategy (PAS), and its mandate was to place at least twelve percent of the total provincial land area and twelve percent of each ecosystem type in protected areas. An official said: “That’s why representation is so important... You can end up with all your PAs in mountains….No one really valued grasslands as an environment to protect. That’s where the awareness-building came in” (2007). The strategy represented a shift from what one government official called the “wow factor” to ecosystem representation (Interview 2007). One official said that, prior to CORE, Parks planners would go out and “find all these great spots… more alpine and physically attractive landscapes,” but this changed at CORE (Interview 2007). Another official explained: “what you had was kind of a shift in the organization [BC Parks] kind of against beautiful landscapes kind of towards … grasslands and forests because they represented a kind of gap in the ecosystem type… the CORE Plan shifted that, and it shifted it more toward ecossections, kind of a gap analysis based on a 12 percent of each ecosystem” (2007). 58 According to provincial mappings, the Churn Creek area contains significant representation of three biogeoclimatic subzone variants: BGxh3 (Bunchgrass

58 In the 1990s, the Province added almost five million hectares to the parks system, taking the proportion of land from about six to 11.5 percent of the province’s total (Wilson 1998, 31).
very dry, hot), BGxw2 (bunchgrass very dry warm) and IDFxm (Interior Douglas fir very dry mild) (CRESD 2006). Grasslands became a significant target of provincial park-making activity, as they were underrepresented in the provincial park system, and Churn was selected as an important representation of the ecosystem type. Again, provincial ecological re-mappings reframed the space in terms of its ecological significance, rather than its patterns of human occupation and use.

The twin federal/provincial discourses of representation overlapped in creating Churn as a region in need of conservation attention. A conservationist said: “No one at the CORE process gave a damn about protecting grasslands… only because of, and to their credit, BC’s focus on representation in the Protected Area Strategy at the time did it become obvious that grasslands were underrepresented. So that, and Parks Canada’s push to have a national park Churn Creek” (2007). Simplified federal and provincial representations of the landscape as eco-regions produced a series of mapping activities that identified Churn Creek as a priority region for environmental protection. Parks Canada’s goal of a national park and the BC government’s focus on representation put Churn Creek on the table, but what happened at the table was another story. The federal and provincial mapping initiatives represented the landscape ecologically, noting significant natural features and flora and fauna. The active, long-term, and intensive local experience of Churn as a ranching landscape was left out of these ecological representations. As a result, at CORE, park advocates faced fierce local resistance. Simplified representations that appeared to depopulate the landscape, emphasizing its natural characteristics, did not translate directly into physical changes; they were mediated on the ground, including through much social conflict.

**Conflict at CORE**

Early in my research, I heard small parts of a story that no one would tell me directly. First, I learned that local resistance to a national park at Churn Creek was so strong that a park advocate was escorted to CORE land use meetings by a plainclothes police officer. What had happened? Over time, as I spoke with more and more people, I learned some specific details of the event. In interviews, I mentioned that I had heard
there was some local resistance to the idea of a national park at Churn, and people might allude to the story or tell some part of it I had not known. Eventually, piece by piece, I learned that a park advocate had gone to visit a rancher to talk about the possibility of a grassland national park in the region. The rancher was so upset by the park proposal (or by the advocate personally, that part is unclear) that he pulled out a gun and shot his own dog. I do not know the rancher’s intentions when he did this. Did he shoot the dog in a clear-headed act of intimidation? Was he anxious, flustered at an inability to express his opposition to the proposed national park? A conservationist said, “this one guy was a bit nuts” (2007). A government official gestured to the infamous “wild west” culture of the region when he said: “That kind of country breeds…[hesitating]. Or maybe that’s where people go when they start to lose it” (2007).

When I first began to write up my findings, I was reluctant to include the story. Because I had interviewed many ranchers, all of whom were generous and polite, I felt that to write this story of violence and intimidation might misrepresent them. However, this specific interaction between two people (and, unfortunately, a dog) was an important part of the early-1990s politics around grasslands in the Cariboo-Chilcotin. I cannot even confirm that the event happened, or happened in the way I have described. However, even the idea of the story is critical to the point I wish to make in this section: Churn Creek exists in its current mixed-use protected area form in part because of this opposition. This story indicates at least one rancher’s antipathy toward a protected area at Churn. Other ranchers also opposed a park in the area. One conservationist told me that ranchers “have trouble with parks” (2007). Why? As I described in Chapter 3, ranchers’ skepticism about certain forms of conservation, especially protected areas, has complex roots in a historically strong anti-interventionist culture made stronger by recent industry vulnerability.

Ranchers I interviewed mistrusted the process of government land reallocation, as was clear both in how they spoke of past protected area creation and also the CORE process itself. Two interviewees – a rancher and a government ecologist – told me about how the Junction Sheep Range Wildlife Reserve was created. Initially, the land was supposed to be returned to the ranch after ten years, but that never happened (Interviews 2006, 2007). A rancher said that he thought the ranchers got “snookered” (2007). He said,
“They didn’t give us any credit for wanting to do the right thing, too, and trying to cooperate with them. They saw us strictly as adversaries” (2007). One ecologist agreed, saying, “Ranchers felt betrayed” (2007).\(^{59}\) I encountered this sense of marginalization and alienation when ranchers described the CORE process itself. I found it interesting when a rancher said that the CORE facilitators were “all caught up with their Roberts’ rules” (2007). This man felt that the structure of the process did not allow ranchers to participate in a meaningful, open-ended way. Another rancher told me: “The biggest thing I got was skepticism, being involved in these processes. The processes have an agenda… whatever information you gave was turned around and used against you later” (2007). There was a clear sense that these bureaucratic processes had a clear trajectory, which ranchers felt they were unlikely to change. It seemed that they had a sense of a bureaucratic logic unfolding in ways outside their control. Then, as ranchers asserted their opposition to the idea of a national park at Churn, the roundtable began to move towards a compromise that appeared to reflect ranchers’ concerns.

**The Churn Creek Protected Area Creation**

Despite conflict, the roundtable produced in 1994 a land use plan – the Cariboo-Chilcotin Land Use Plan (CCLUP) – which included regional zoning (CORE 1994). Over the course of CORE, after much negotiation on the Land Use Plan zoning, three things happened to the regulation of the Churn Creek area. First, the conservationists’ proposed protected area got smaller; one official said: “it slowly got whittled down and whittled down” (2007). The protected area shrank to the west, as advocates “quickly moved from the east side of the Fraser River to the west side” (Ibid). It also quickly shrunk south, as advocates moved the proposed area down to avoid including the Gang Ranch”; they “focused on the Empire Valley and the Churn Creek watershed” (Ibid). Second, the region was designated as a provincial protected area under the Cariboo-Chilcotin land use plan (CORE 1994). Eventually, Parks Canada withdrew its interest in Churn. As a provincial protected area under the regional land use plan, rather than a national park,\(^{59}\) This person continued, “[Junction] deserves to be a park, but it should have been a negotiated settlement” (2007).
Churn could allow a wider range of uses. (Grazing is not allowed in national parks, unlike most provincial parks.)

This was the third way in which the Churn Creek area was shaped during CORE; the area was zoned to allow for ongoing ranching at Empire Valley. This decision was necessary to appease the ranching community, and diffuse tension around the table. A quote from Chapter 3 bears repeating in its specific context here. A government official explained:

Once we dealt whether there was going to be a working ranch or not, a lot of the tension went away. A lot of the ranchers were relatively pleased that there was going to continue to be a ranch there, and some of the conservationists, once they started to see all the work on grassland conservation and all the work that we were going to put in in terms of monitoring, putting benchmarks in, and putting fences in, and protecting riparian systems, I think a lot of them started to be more… they felt better about it. (Interview 2007).

In this way, through negotiation at CORE, a smaller provincial protected area was created, in which a working ranch would maintain operations. Because of the complex relationships at the table, ongoing negotiations among different people, a very specific compromise was reached by the land use planners.

A research ecologist told me of being in Churn Creek when a camera crew arrived. They were filming a “BC Moment” special, one of the short interludes that appeared on Channel Four, highlighting the natural and cultural attributes of the province. The cameraman held up the camera to the ecologist’s face and said, “Is grazing good or bad?” The conservationist said something like, “Put the camera down and I’ll talk about it.” He could not answer the question in that form; the context was too important. Churn Creek was a place where grazing and ecological improvement had to go together, an intensely political compromise. In a way, the compromise at Churn demonstrated that ranching and conservation could work together, but that is only part of the story.

The Province, through an order-in-council, re-regulated the small Fraser Canyon portion of the proposed park as a Class B Provincial Protected Area (Map 6.1). The Class B designation officially permits a broad range of uses so long as those uses are “not
detrimental to the recreational values of the park” (BC Parks 2010). However, this generic, recreation-oriented description is out of date; the Park Act was written in the 1960s (Interview 2007) and does not reflect the institutional innovation needed to reflect the compromise at Churn Creek. Behind each protected area added to the BC system, there was a story and a set of guidelines for management and use. As one official said: “It’s like saying ‘car.’ Protected Area is like a car. It’s the generic term” (2007). Each park has its own governing legislation, which includes some combination of the Parks Act along with specific regulations regarding its management and use. The Churn Creek Protected Area developed a very specific form as result of the conflict surrounding its creation.

Map 6.1: Churn Creek Protected Area (Map: Eric Leinberger, data from GCC 2004)

The Canadian Nature Federation lauded the creation of the Churn Creek Protected Area as a “notable conservation success” and the protection of “a sizable example of the province’s rarest ecosystem” (Kendrick 1998). This statement reflects a widespread
tendency to regard conservation in terms of landmark decisions, as government decree. The creation of the Churn Creek Protected Area, however, was not a final accomplishment, a point of arrival. Rather, it represented a new idea of collaboration among ranchers, government, and conservation interests. An official involved in the protected area planning process said: “It’s all adaptive, right? So you never make decisions in the absolute, that’s the first thing” (2007). Social negotiation over Churn was ongoing; the struggle for control of the territory continued, only now within the framing of a protected area. Thus, result of these initial conflicts was not a watered down version of an initial state idea, but the production of something new entirely. As a result, a whole set of new bureaucratic practices were necessary to negotiate and regulate how the CCPA would be used.

The Purchase of the Empire Valley Ranch

There are two ranches in the Churn Creek watershed: the Gang and Empire Valley. Clearly, the Gang Ranch was of interest to conservationists; it had been since the grazing debates of the 1970s. At the time, it was one of the largest ranches in North America, and held substantial areas of the Interior Dry Plateau ecosystem that Parks Canada wanted to represent. However, as I described above, at CORE, park advocates quickly realized that the creation of a protected area from the Gang was unrealistic. A government official said:

If National Parks buys the Gang, what are you going to do with it? Dissolve it? Take the largest ranch in Canada, or the second largest and just dissolve it – it’s not a ranch anymore? It’s not very realistic. It wouldn’t go down. At all. Whereas the Empire Valley Ranch, everyone knew it was a non-viable ranch. It never made money. It just wasn’t a big player. So you could conceivably take that ranch out of the ranching equation, dedicate those grasslands to conservation without any big impact to ranchers. (2007).

The Empire Valley Ranch soon became the clear choice. It was, as one interviewee said, “fee simple in the middle of Churn Creek… like a doughnut” (2007). The Cariboo-
Chilcotin Land Use Plan noted that with the “significant natural/ undisturbed” grasslands at Churn, the “viability of the area will be enhanced if adjacent private lands are purchased” (CORE 1994, 100). But was the Empire Valley to be taken “out of the ranching equation,” its grasslands dedicated to conservation?

Ranchers and conservationists had definitely disagreed about whether there should be a park or a ranch at Churn Creek, but these groups came together in their criticism of the owners of the Empire Valley Ranch. In 1997, the owner sold Empire Valley to Vesco Contracting, a logging and ranching company based out of Prince George, and Vesco immediately began logging the ranch’s private lands to finance the purchase (BC Parks 2000, 150). A rancher said that “loggers… bought it and pillaged it” (2007). “Their company was going around buying ranches, logging them to death, and then subdividing and selling them,” he said. A government official said that when the company started logging there was a “real push from the environmental community to purchase the ranch” (2007). For example, a Canadian Parks and Wilderness Society Newsletter announced an “urgent grassland issue,” stating that: “The grassland heart of the new Churn Creek Protected Area remains in private hands. The provincial government should purchase this critical property” (Fast, Jessen, and Lloyd 1996). Conservationists lobbied then-Minister of Forests David Zirnhelt to buy the Empire Valley and turn it into a grasslands park (Interviews 2007). The specific practices inside the protected area helped drive forward new conservation measures, with a sense of urgency.

In 1998, the Province acquired the Empire Valley Ranch in the south end of the Protected Area. An official told me that “at the time, it was the largest private land deal by the government in Canadian history” (2007). According to NDP Minister of Environment, Land, and Parks Cathy McGregor, the government paid “about $2.78 million in cash and exchanged about $3.7 million in timber values for a total of $6.48 million” (Government of BC 1998). This was a big change of direction for BC Parks. An official (not speaking on behalf of BC Parks), said:

So we’ve got the Churn Creek land, and then we’ve got all this private land, which was full of… you know we had the Empire Valley, which was full of
like old cars, all kinds of liability issues, and all kinds of things that [BC Parks] had no experience with, like dams, and pelton wheels, irrigation systems, and grazing systems, and like five hundred cows.

The Empire Valley was not traditional park land like Garibaldi or Strathcona (BC’s well-known provincial parks), awaiting mountain trails and warming huts; it was filled with all the physical infrastructure of a working ranch. There was an irrigation system, an industrial haul road, and haying operations. The specifics material configurations of the place affected the government’s plans for its management. Again, the initial simplified governmental representations of the landscape could not account for its physical contents; an abstract plan for protecting grasslands suddenly had to account for many unexpected elements.

And not only was the physical form of the protected area atypical, the acquisition of the Empire Valley was undertaken with the post-CORE understanding that ranching was to continue in the area. The Cariboo-Chilcotin Land Use Plan clearly stated that the ranching was allowed. This was a change for BC Parks. The official said:

Historically if you look at the EVR, the ranch had up to 2000 cows on the land base. So the big question was that, okay, the land use plan says that grazing is good, BC Parks now has to accept that grazing is not an incompatible land use… it was a real shift for the organization. (2007).

In 1995, according to BC Parks, the Park Act was amended to provide “increased flexibility in accommodating uses in Class A parks by allowing for the continuation of grazing, hay cutting and other uses (except commercial logging, mining or hydro electric development) that existed at the time the park was established” (2008). In other protected area designations, grazing is also often seen as a “compatible use.”

So the acquisition of the Empire Valley was not necessarily the filling-in of the Churn Creek doughnut that some conservationists might have hoped. There would be an industrial ranching operation in the middle of the protected area. The negotiations about how the ranch should be run began. As one interviewee said of this stage, “It became clear that it wasn’t a question of whether grazing should be allowed, it was a question of
how much” (2007). The ranching and conservation communities were entering a new stage of negotiation. In this stage, networks of grassland conservationists stepped in to influence how the landscape should be managed. The ranch regulation would be a scientific, ecological affair within an innovative bureaucratic structure. Provincial officials then posted a call for proposals from ranch operators, wishing to run the government-owned ranch. In the end, only one operator – a young ranching family, the Holmes family – put in a bid. Someone told me that the rancher John Holmes said “No one wants to live here but us” (2007).

Many Aboriginal community members had worked at the Gang and Empire Valley ranches as cowboys and in other capacities. When the government opened the Empire Valley Ranch (in Churn Creek) up for public bid, the Canoe Creek Band expressed interest. Whether they submitted an actual bid is debated. A rancher said, “the idea faded on the natives” (2007). There was an arrangement between the successful bidders – the people who ran Empire Valley – and members of the Canoe Creek community. However, this negotiated agreement fell through, for reasons that interviewees debated. There was a complex story there, one that I was unable to find out in full. As I discuss further in my thesis conclusions, I did not manage to arrange an interview with the Canoe Creek Chief, Lands Manager, or the two men in charge of the haying. The integration of Aboriginal title into the management plan and Aboriginal use of the Churn Creek region continue to be points of discussion.

**The Pitt Report and Management Plan**

University of Victoria professor Jeremy Wilson notes that, although CORE was “not universally acclaimed, the new processes allowed fuller application of ecological knowledge” (1998, 31). This is certainly the case with respect to Churn Creek, where conservationists were disappointed with the land’s reregulation – the Class B designation was definitely not “universally acclaimed” – but began to actively apply ecological knowledge, undertaking many diverse efforts to re-map the space as a scientific site of conservation. The two large-scale initiatives to reconfigure regulation and use in the
CCPA were: the Pitt Report (Pitt, 1998) and the Churn Creek Management Plan (BC Parks 2000).

How should the ranch be managed to accommodate ranching, conservation and other concerns? Again, as the mixed ranching-conservation protected area was without precedent in BC, officials opted for further research. UBC range agrologist Michael Pitt was invited to produce a report on the Churn Creek area, to make recommendations to government. Pitt was a well-known range scientist and grasslands advocate, later to become the Chair of the BC Grasslands Conservation Council. This was an initial stage in the planning process, a backgrounder to the development of a management plan (Interviews 2007; Pitt 1998). An official said, “it was just a report, it was just some recommendations, it was just something for [park planners] to think about” (2007). However, this new research was not neutral, and officials did not anticipate how the report would be received by local residents.

The report’s main recommendation was to develop a steering committee to develop a management plan, including representation from Canoe Creek and Esketemc First Nations, BC Parks, and other interested parties. But the recommendation that caught peoples’ attention was the recommended herd size: Pitt suggested that the ranch start with two hundred cows, and be allowed to increase the herd after proving that grassland conditions were being improved (1998, vi). The ranchers had to “justify the increase” (Interview 2007; Pitt 1998, vi). The ranching community (and its supporters) believed that the Pitt report reflected environmental interests far more than their own. The first recommendation of the Pitt report was that “future commercial activities in Churn Creek Protected Area, including range resource management, must remain secondary to the grassland conservation values for which the Protected Area designation was established” (1998, vi).

Several interviewees commented on the difficulty of the task that Pitt faced in trying to negotiate a compromise. A second official with an environmental ministry said

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60 Officially, the report was to provide “recommendations for range management options that accommodate the varied social and cultural interests” and also provide “guidelines that will also protect and enhance the significant ecological, aesthetic, and conservation values for which the Churn Creek Protected Area was established” (Pitt 2000, iv). In other words, Pitt’s task was to balance social interests and protect ecological conditions.
that, “People were really upset… it drained him [Pitt]” (2007). An official with a parks-oriented perspective said: “He tried to walk a middle ground in a place that didn’t like middle grounds. Definitely didn’t like middle grounds” (2007). This interviewee believed that Pitt’s approach reflected a neutral standpoint, though ranchers would challenge the idea that the report constituted a “middle ground.” This man, with a background in environmental studies and parks management, believed that an academic study represented the most balanced perspective on the ideal use of the CCPA. However, this was clearly different from how ranchers’ perceived this report.

A rancher said that Michael Pitt “did his academic thing”; he felt that the recommendations were unrealistic and that the ranch needed more than two hundred cows to be viable. The rancher was expressing his belief that Dr. Pitt’s approach was “academic,” reflecting outside interests without understanding of local context. A government official with the Ministry of Forests and Range agreed, saying that Dr. Pitt’s recommendation “probably did not reflect the bottom line of a working rancher” (2007). Dr. Pitt did interview ranchers, and reflected their concerns in his planning report. However, he then intervened as an ecologist to recommend the grazing limit, and this recommendation was what attracted ranchers’ ire.

Next, a technical working group (TWG) was created to research and provide management options to the public. At the meetings, participants from the public would vote on specific park objectives using sticky notes to vote for the initiatives of their choice. For example, the TWG would develop options around what to do with water and irrigation in the protected area – should the irrigation be fixed up and run? Or should the ranch shift to a dry operation with no hayfields at all? The TWG, after considering the physical form of the park as well as the overarching management structure of the land use plan, would develop pros and cons. At the meetings, after the TWG presented the options, there would be a public vote. Someone involved with the TWG said: “So we’d give about twenty minutes and then everyone would go and put their sticky down and kind of step away, and what you’d see was these five options, and usually one option had way more stickies than the others and we could say, ‘OK, that’s our public input’” (2007). In the end, the government went entirely with public opinion, because the public chose things that the government “could live with” (Interview 2007).
After this lengthy and participatory process, parks planners completed the *Churn Creek Protected Area Management Plan* in 1999, and its central focus was on grassland conservation. BC Parks, the Department responsible for administering the protected area, says that the park “has been established primarily for the conservation of grassland ecosystems” (2006). Planners found that there was additional, formerly fenced land that could accommodate cattle, the herd size could be closer to four hundred (Interviews 2007). An official (2007) reflected that:

And in a perfect world we’d have maybe two cows, just because historically they had up to 2000 and the Land Use Plan said grazing had to continue, we’re kind of constrained by that. The other is economic. John and Joyce in order to have a ranch there, they needed to have a certain number of cows. If it went below that, it was uneconomic.

Four hundred cows represented a compromise among many people and was also based on the physical characteristics of the place: its ecology (someone said, “I’ve never seen a management plan with so much information about grass” [2007]) and also the material configurations of past human use (for example, the historic fencing patterns). Someone involved in the planning process said, “So there’s a mixture between good science, and the economy of ranching was somewhere in the four hundred range” (2007). Again, the intervention of a conservation-oriented individual, working on behalf of the government, underwent a lengthy process of mediation and change with the culture, people, and physical landscape of Churn Creek.

**CCPA Regulation: Unintended Consequences, New Opportunities**

Today Churn Creek is a very mixed space, filled with activities that park advocates and government representatives had not anticipated. The federal government proposed a national park, the Province created a mixed-use protected area, but there continued to be consequences that exceeded either government’s expectations. The
CCPA appeared to organize and give structure and meaning to the landscape. All of the work that occurred after protected area creation appeared to tie up loose ends; buying the Empire Valley, Dr. Pitt’s research on management, and management planning were all ways to adjust the whole to accommodate complex material specifics. One might believe that finally, given all this negotiation and rearrangement, order could be established. But a mode of ordering is, as earlier quoted: “always limited” (Law 1994, 21). In exploring current activities at Churn, earlier compromises appear as a very temporary mode of ordering, what Law would call a “precarious pool of apparent order” (Ibid). Perpetual reordering is ironically the only constant. This is an important insight in understanding state conservation not as a one-way flow of rationalizing power, but an ongoing negotiation between conservation ideas and the specifics of place.

This section unfolds in two main parts. First, I describe how Churn is regulated and monitored. There appears a strange unevenness in government regulation: tourist use runs largely rampant while ranchers face intense scrutiny. The temporary sense of order found by turning Churn into a Class B Protected Area – a discursive, institutional construct and an encompassing compromise – is disrupted by hunters and tourist overuse. Second, I explore the new initiatives developing to mitigate and address these new challenges. Mitchell notes that not only do bureaucratic interventions regularly fail in their calculated results, but these failures create new opportunities for intervention. He notes that: “there were always certain effects that went beyond calculations… exceeded human intention. Scientific expertise and national politics were produced out of this tension” (Mitchell 2002, 38). When bureaucratic interventions do not produce the stated results, their power is not undermined. Rather, new opportunities for intervention – programs of mitigation – are produced.

**Government Regulation and Unintended Consequences**

“We’ve lost most of our grasslands in the province,” a government official told me. “What happened because it was so good for ranching, is that most of it is private land. Government don’t have control of a lot of grasslands in the province so that makes existing protected areas that have grasslands in them that much more important. They’re
very very significant.” As a rare and significant site, the CCPA receives more regulatory effort than any other park in the Cariboo-Chilcotin, and the Empire Valley Ranch is far more closely regulated than other ranches. As both a park and a ranch, Churn is an object of bureaucratic and scientific attention, an administrative subject to both the Ministry of Environment (MOE) (within which BC Parks is a department) and the Ministry of Forests and Range (MOFR). In understanding regulation and monitoring at Churn, the division of responsibility between BC Parks and the MOFR is critical: BC Parks monitors recreation and park visits, while the MOFR supports monitoring of the grazing practices of the ranching operation at Empire Valley. The division of responsibility results in a remarkable contradiction. The story I next describe is complex, but it suggests that while tourist use (especially hunting) is relatively uncontrolled, ranchers’ operations are heavily scrutinized. Why? I offer some possible explanations. This regulatory unevenness suggests, though, that even as conservation does not achieve its stated aims, it succeeds in rearranging the patterns and rights of resource use.

_Hunting and Recreational Overuse_

Churn Creek managers have encountered an unforeseen challenge: limited capacity to deal with recreational overuse. The BC Parks Branch applies maximum effort to monitoring Churn Creek, but it is not enough. In the Cariboo-Chilcotin, there are two BC Parks officials responsible for the 17 provincial protected areas in the region (Interviews 2007). Although the local ecologists I interviewed agreed that the parks officials dedicate a relatively large proportion of their time to Churn, it is not enough to regulate its use. Furthermore, BC Parks has not set up full camping facilities (Interviews 2007), which would concentrate use in certain areas. A member of the ranching community familiar with operations at Churn said he believed that the Parks people imported weeds on the tires of their vehicles (2007), actually causing the degradation they were meant to help prevent. I spoke with an Indigenous community member who was interested in creating a program for First Nations to patrol and monitor the park, a program similar to the Haida Watchmen program in Haida Gwaii, where Haida community members monitor important sites during the tourist season (Interview 2007).
These “watchmen” positions would create economic opportunities and allow local Aboriginal people to reassert their cultural values in the park. However, no such program has been officially discussed. In all, interviewees agreed that the BC Parks staff effort to monitor recreational use in the CCPA is substantial, but their capacity to prevent recreational overuse is limited.

The conservationists’ input at Churn resulted in the creation of a protected area that put Churn Creek on the map in a way that it had not been formerly. Its new meaning is evident on any provincial highways map, where the area appears coded as a protected area in shaded green, a thick and wobbly upside-down L on the west side of the Fraser River. On the map I used while travelling the region, the campsites are indicated with a tent triangle. It was put on the map as government property, and a site of recreation. All interviewees agreed that National Parks were far better staffed, with a greater number of resources to monitor and control recreation. With its order-in-council, the government changed the social meaning of the space in ways that park planners had not fully anticipated.

However, as a Provincial Park, Churn became a recreational destination without government infrastructure to guard against its overuse. As private lands became public lands, limits to vehicle traffic imposed by private owners were removed (Pitt 1998). There is now widespread recreational overuse and misuse. An official said: “Public access was a huge issue. There was a huge network of old logging roads through the park, and the hunters, which had never had access to this land, it was private land, now had access to the land. When they first opened it up, there were people everywhere” (2007). As early as 2000, local ranchers advised that “‘presence’ at the CCPA is necessary to limit and monitor off-road vehicular use” (Ibid, 5). But a rancher said that Churn was “overrun by attitude” and “people feel like they own the place” (2007). An ecologist said: “it’s like a zoo in there in hunting season. It’s incredible” (2007). This person continued: “in a way that’s almost a detriment to it being a protected area because before it was private land, there wasn’t that access for hunters for the most part.”

Hunting is the most popular recreational activity at Churn, which “receives the highest hunting pressure of any location in the Cariboo-Chilcotin” (Pitt 1998, 2). A hunting guide I met in the park told me that on one November day during hunting season,
someone counted 188 vehicles entering the park in a single day (Interview 2007). When I visited Churn for a day in November 2008, I was amazed at the volume of hunters. Standing almost anywhere, I could see at least one person with a deer stalker cap and rifle. There were practically traffic jams on switchbacks near Churn, places where I had never earlier seen a single car. Other interviewees told stories of visitors to Churn using bolt-cutters to remove barriers, so that they could drive on closed roads. Someone told me that the ranchers had found toilet paper at the end of their driveway. Michael Pitt noted the environmental damage of such uncontrolled park use, reporting new off-road vehicle tracks in the grasslands in the northern protected area (Pitt 1998).

When I visited the area in 2006, I overheard two men speaking at the campground. One man said that he was planning to drive up the road toward Black Dome mine, which is just outside the park. The other replied that he thought the road was closed, and the speaker said, “Yes, it is. But I won’t spend most of my time driving on the road anyway.” Not only was the man planning to follow a closed road, he also planned to drive off-road since, he said, there was never anyone there to catch him. Off-road driving poses a major threat to grassland health, as it damages the fragile soil crust and can also introduce weeds. This was an example of what has become a widespread problem in the CCPA: recreational overuse and limited government capacity to prevent it. Ecologists fear widespread degradation of the area if tourist overuse is not controlled (Interviews 2007). An ecologist, when asked if there was evidence of off-road driving in the park, said: “There certainly has been some, but it’s not just hunters. There’s dirt bikers and that, going cross-country that some of the area supervisors have come across” (2007). In re-mapping the landscape as a public park, provincial representatives produced new environmental risks that they had not anticipated. Tourist overuse also demonstrates ways in which, in spite of how the whole area is ostensibly a state-run space, state presence is thin. Government’s control of territory is very partial.

*Ranch Regulation in the CCPA*

Strangely, at the same time as tourist use is large and widespread, the activities of ranchers in the area are tightly controlled. BC Parks staff are trained to monitor recreation
and park facilities, their expertise on grassland ecology is limited and so they cannot monitor range condition. Range monitoring is thus often co-sponsored by the MOFR. Consultants produce reports on the changing state of grasslands and riparian areas, submitting their reports now to both Ministries (Mackenzie and Iverson 2005). A larger burden of ecological regulation thus falls to the ranchers. The park was created in large part to protect grassland resources and the responsibility for their protection falls to the ranchers. In 1998, the Holmes family submitted a bid to run the ranch and have been operating their business at Empire Valley ever since. “It’s not a regular ranch,” a government official said of Empire Valley (2007). “The grass comes first and the cows come second. And all those conditions make it a very difficult place to run a ranch.”

Empire Valley is a working ranch, but it is owed by the Province and situated in a protected area. As a result, there is a great deal more scrutiny by government than one might find at another ranch. An ecologist said, “although all the scrutiny within a PA is that much higher I do think it has helped the conservation of those grasslands” (2007). Many interviewees told me they believe that the Holmes family struggles to make a living in this tight regulatory structure. The ranch is run within a very small operating margin.

The overall ecological health of a large area like Churn Creek is difficult to quantify. A 2005 report found that there was little measurable difference between 2000 and 2005 at established monitoring plots around the CCPA (McKenzie and Iverson 2005). Still, someone who knew the report said, based on intuition from years of monitoring work: “I do think that the range has improved somewhat in the area. But there wasn’t any really measurable differences. Certainly no decline, but it’s hard to see measurable differences. But like I said before, you need larger changes to be able to reliably measure a change. But I think it’s gradually improving nonetheless” (2007). This person believed that small, mostly immeasurable improvements were made in grassland quality. But the report also directly notes specific improvement in the vegetative communities of riparian areas in the CCPA, and credits these improvements to “water

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61 He continued to describe the compromise represented by the protected area: “And at the same time, the decision was made by government to run a ranch, and to run it inside a protected area. There were a lot of people who thought that cows should just go away, and they didn’t get their way either. And that was all a political decision.”
body fencing, additional water developments and better cattle management” (McKenzie and Iverson 2005, ii). An ecologist said that the high ecological targets for Rangeland Stewardship Plans under the *Forest and Range Practices Act* are actually only met in the CCPA (2007).

How is it possible that ecological conditions might be improving? In large part, this is because the ranchers in the protected area are dedicated to conservation practices. I met the rancher at a one-day GCC workshop on grassland monitoring, at which participants learned to study vegetative communities, which appears to indicate his interest in improving his ecological knowledge. This view would be supported by an ecologist, when asked about the overall condition of the protected area, said: “Well, I think that the biggest thing that has helped it is that they ended up with ranchers running within Churn Creek that are very diligent and conservation-minded” (2007). The interviewee continued, saying that the ranching family in Churn is:

> Very conscientious and very interested in what’s happening in there. Interested in increasing their own knowledge, too. I mean they’ve gone out of their way for things, too, like water management. Hauling water for cattle. They actively work on their distribution and that, and they actively ride the range so they know that cattle aren’t congregating and degrading an area.

The ranching family, thus, appears to be open to and influenced by ecological ideas about grasslands. Agrawal (2005) explores how people in Kumaon, India, became environmentalists and argues that peoples’ subjectivities are created, at least in part, by institutions; he argues that emergent environmental concern among Kumaon villagers supports state interests. As I described in Chapter 3, many ranchers would deny that their approach to conservation was produced by government institutions, and argue that there is a long tradition of careful grassland management in ranching. However, the specific forms and ideas of conservation may shift over time as a result of new regulations and science. Though I do not know to what extent the specific workshop impacted the rancher’s perspectives and practices, even his attendance demonstrates external conservation influence.
Regulatory Unevenness

There is a remarkable unevenness in regulation at Churn: ranchers’ operations are ecologically and heavily monitored and controlled, whereas tourist use is largely unchecked. What causes this unevenness? I believe the causes are overdetermined, impossible to pin down to a single factor. First, there are basic logistical considerations. The ranch is a fixed operation with a stationary headquarters. In terms of monitoring and enforcement, therefore, ranching is much easier to control; the mobility and seasonality of hunters produces a difficult challenge. As well, ranch monitoring is supported by the additional capacity of the MOFR, whereas the understaffed and overstretched staff of BC Parks is responsible for tourism and park use.

But is the unevenness of regulation representative of a broader reorganization, as ranching declines in profitability and is less publicly valued? Is land, over time, being reallocated to more profitable or socially valued use? Are the regulatory problems at Churn an example of the sort of an anti-ranching bias in conservation that ranchers described (in Chapter 3), where environmental interests cause regulations to become so onerous that eventually the rancher can no longer use the land and has to walk away? A rancher who has perceived a past gap between stated government intentions and outcomes over time might argue that it is part of a broader land grab, a surreptitious way of reorganizing land rights. As I next describe, some conservationists remain unconvinced that a working ranch is a good use of these grasslands. I believe that continued study of this area over time will provide more insight into these questions. For now, the ranchers are continuing operations, and have even reoriented their business toward grass-fed, locally-slaughtered, direct marketed beef (Farrar 2010), an example of the kinds of adaptation to industry crisis that many BC ranchers propose (see Chapter 3). The ranchers are showing resilience and adaptability.

New Opportunities for Intervention

But sometimes, the outcomes of bureaucratic interventions do not match stated goals. Still, however, these interventions extend the realm of bureaucratic control over
new territory. In the case of Churn, conservationists’ desire for grassland protection was thwarted, and conservationists began to look elsewhere. A government official said: “I don’t think anyone in the conservation field is happy with what’s there now. People are interested in looking for more.” He said conservationists wanted “more sites, better sites, I think. Better management than Churn” (2007). Some conservationists were disappointed that grazing was allowed to continue; even in his 1998 study, Dr. Pitt noted that “naturalists/ environmentalists often expressed opposition to continued cattle grazing, arguing that ‘protection’ cannot occur simultaneously with grazing” (Pitt 1998, iv). Speaking of the Empire Valley, one conservationist said that it was unfair for a single business to gain so much benefit from public lands (2007). Furthermore, other conservationists are aware of and disappointed by the lack of controls on tourist use.

Among conservationists, there are two main focal points for further land re-regulation: National Park creation in the South Okanagan and the creation of a new “Friends of Churn Creek” organization. Advocates are pushing for the creation of an Okanagan National Park to represent grassland values in BC (GCC 2010b). Like Churn, the region lies in the Interior Dry Plateau, and can represent the significant eco-regions identified by both the federal and provincial governments. The National Park proposal has faced local opposition in the Okanagan, too. Interviewees mentioned that this opposition occurred because there was (a) already a “conservation crunch” in the area, with several conservation organizations trying to purchase and protect grasslands; and (b) and resistance to the idea that grazing will be phased out in the National Park (since grazing in National Parks is not allowed). Still, the National Park in the Okanagan-Similkameen looks set to proceed.

One conservationist said, “We haven’t given up on Churn Creek” (2007). This person said that Churn is an important representation of Region 3, the Interior Dry Plateau, and the values of that region cannot be only represented by the south [the Okanagan]. An advocate for a national park at Churn said, “the Okanagan is nowhere near representative of Region 3. Churn Creek isn’t totally either but it’s a hell of a lot better” (2007). This person said that Churn Creek does not have all of the endangered species, but the issue is not about species, but about representation. Another conservationist said, “Never say never” (2007). Someone said that BC Parks staff would
“welcome Parks Canada, because they cannot maintain the parks” (2007). An ecologist said that Churn: “would’ve been a National Park if it weren’t for the political climate in the area. It was the highest on their priority list for that natural region” (2007). Still, it seems unlikely that Churn will be regulated out of its present status any time soon; there was too much conflict around its initial designation.

However, some changes in management are already occurring. A conservationist said in 2007, “I hope there’s some change. [Churn Creek] certainly deserves it.” Then, in 2008, a group of conservationists associated with the Grasslands Conservation Council of BC (but acting independently) launched an organization called the Friends of Churn Creek (Friends of Churn Creek 2010; Interviews 2008). This initiative was moved forward by a GCC member who was concerned when I told him what I had learned about recreational overuse at Churn. The purpose of the Friends organization is to “help BC Parks achieve the conservation and cultural heritage vision for Churn Creek Protected Area (CCPA), as outlined in its management plan” (Friends of Churn Creek 2010). The Friends organization recently conducted an invasive plant removal day trip from Williams Lake, taking volunteers into the CCPA. The idea is that the organization will assert a stronger conservation presence in the region, to embody the ecological values that conservationists have advocated throughout this messy process.

**Conclusions**

Globally, 1980 to 2000 was an era of massive protected area expansion (Zimmerer et al 2004). The circumstances were similar in BC, as political will and environmental advocacy for protected areas reached a high level by the early 1990s. During this time, Churn was identified as a critical site for protection. At the beginning of this chapter, I described how government representatives developed “eco-zones” that identified Churn’s grasslands as critical sites for protection. “There was a real logic to it,” one interviewee said. These representations re-mapped the landscape, emphasizing ecological values rather than other social uses and understandings. The story of Churn Creek is one about eco-governmentality, exploring how a place that was a ranching
frontier became a well-travelled site of scientific conservation and with what consequences. At a general level, protected area expansion demonstrates the incursion of new scientific knowledge and state planning mechanism into new regions. From afar, a protected area appears as an achievement, a singular designation that protects nature or sets land aside.

Such a perspective, however, misses the ongoing socio-natural negotiations occurring when state plans begin to enter a very animate, contested place. Conservationists and government officials may have had logic to their plans, but ranchers had other ideas. The physical form of the landscape, too, with its irrigation works, roads, and mining practices, suggested other institutional arrangements and human activities. Environmental interventions at Churn Creek did not have the outcomes their proponents desired. Rather than a gigantic National Park, the area became a Provincial Protected Area with a working ranch inside. Even when the bureaucrats adapted to accept this new compromise, developing multi-stakeholder management planning sessions, the struggle over control over territory continued. There are more government and scientific programs, but each new set of practices encounters complex relations and new challenges. Territories are never fully brought under control. The story of Churn is not a linear story of “governmentality rising” (2007, 32). The outcomes are always negotiated among many people and mediated by the specifics of the place.

Zimmerer notes that scholars have “increasingly sought to elucidate how the establishment of these conservation areas is both incorporated into the everyday lives of persons who live in and near them and, often in the same instances, contested due to disputes over the location, coverage, and management of these territories” (2006b, 65). The Churn region was initially contested and the working ranch meant to assuage ranchers’ concerns. The long ranching history and culture of the region are represented in practice in the operations of the Empire Valley. However, interviewees of all backgrounds agreed that the CCPA is a difficult place to run a ranch. Only one family put forward a bid – an energetic couple who are interested in ongoing innovation and environmental management practices. Still, they live in challenging circumstances, in a ranch overrun by visitors and yet where their operations are relatively heavily scrutinized.
Since the area was remapped as a site of ecological concern, conservationists have shown adaptability and persistence. Working within a fragile peace since the conflicts at Churn, conservationists have sought to treat conservation as scientific agenda of rational management. Plans for a national park have moved to the South Okanagan. As well, ecological science – including monitoring at exclosures – continues to move ahead in the protected area. Recently, a new coalition of conservationists developed to help protect the CCPA, and to support BC Parks in managing the region according to the principles established in the Management Plan. Conservation activities have reframed the social meaning of the landscape. Churn Creek has been run under its current management plan since 2001; many more years are needed to understand the long-term significance of its framing as a space of conservation. Still, conservationists have succeeded in changing the landscape. A scientific discourse of eco-zones and grassland ecology is inherently very political, resulting in much social reorganization. Their interventions have rearranged the rights of users, but it is unclear whether their activities have led to an overall increase in environmental protection. The idea of rational, ecological management of nature has produced many social consequences.

In all, a close analysis of a protected area in terms of peoples’ activities and the specific landscape conditions demonstrates that state planning discourses produce the idea of order, but that order is always temporary and unstable. At Churn, new initiatives often appear as adjustments to the model, as if each new initiative will somehow solve the problem and create a more idealized form of the order state planners initially sought. In this chapter, however, I have argued (following John Law) that change and disorder is a basic fact of social life. Examined in close material detail, state practices are only part of what happens at Churn Creek, even though the whole area is framed as a state space. However, conservation functions by producing the idea of order in a landscape largely unruly and unquantifiable. Conservation is not the achievement of a rationalized human-nature order, but the production of that ideal in discourse and the practices undertaken in its name. The complex, specific ways in which people in a place respond to conservation is an equally important, fleshing out a story of open-endedness and constant change, rather than top-down state domination.
Chapter 7

Conclusions: The Grassland Debates

Introduction

As a conservation space, the middle Fraser is an unlikely and even resistant area. Although by Canadian or even provincial standards it is not extraordinarily remote, being just five hours north of Vancouver, it is bypassed by major highways and is not a major tourist destination. The landscape is dramatic – wide open grassland steppes above the river canyon – but unfamiliar to many nature lovers, particularly those in the Lower Mainland with attachments to mountain, forest, and coastal landscapes. Furthermore, many locals are wary of outside intervention. There is a high proportion of private property in the area, with attached Crown land. State capacity for monitoring and regulation is low. Early encounters with the middle Fraser suggest that it is a frontier landscape, a region with strong attachments to pioneer history and ranching culture.

There is, however, a long history of conservation activity in the region. Naturalists visited the area as early as the 1930s and environmental continued through the 20th century and accelerated near its end. There are now three protected areas in the region: Junction Sheep Range, Edge Hills, and Churn Creek. The Land Conservancy of BC (TLC) also owns a large property on the west side of the Fraser River: Talking Mountain Ranch. Now, within the overarching compromise of “working ranches for conservation,” there are also many conservation activities on active, private ranches and their Crown grazing land. There are exclosures for monitoring, new ecological regulations under the Forest and Range Practices Act, and workshops that instruct ranchers on ecological monitoring. These practices seek to improve or maintain grassland health in the region.

My thesis explored the creation of a conservation territory in a rural landscape. Initially, I sought to answer two research questions: (a) how does scientific conservation
develop, travel through networks, and extend over a rural landscape; and b) how do different people – conservationists, ranchers, and Aboriginal community members – relate to subsequent changes. However, it became apparent to me that the separation between conservation knowledge and different social perspectives was a false one. That conservation knowledge is produced in constant exchange with different people, the place, and many other non-human entities – these were central conclusions within my thesis. Conservation cannot “extend” over the middle Fraser, as it is configured by relations among people, nature, and place.

As I described in the thesis introduction, this is a regional study. I set out to explore conservation and social change in a small, extraordinary slip of the world. It was my main goal to reflect, in detail, the complexity of these issues in the region. I draw on literatures on the environmental and historical geography of British Columbia, on nature and state power, and the role and function of social networks. However, my study is not theoretically ambitious; I am interested in these literatures as they elucidate the place-specific socio-natural relations that animate the study. I believe that broad conclusions on knowledge or state power are outside the scope of the work, and would not have reflected the responsibility I felt to the rich complexity of place.

In these conclusions, I address the thesis’s two central themes. First, I explore the relationship between conservation and governmentality. Ecological ideas, travelling though academic-bureaucratic networks, result in concrete changes in a rural landscape. At the same time, these changes are always partial, and governmental programs often develop in response to the agency of local people and many non-human entities. Second, I explore how different social groups respond to conservation. I do not describe what “should” happen within grassland allocation and use, instead emphasizing intellectual accommodations for conservationists advocating environmental protection on rural landscapes. This emphasis on governmentality suggests that scientific knowledge and rational planning are intensely political, significant forces of deep and widespread change.

Overall, I suggest that larger processes of knowledge development and bureaucratic practice better include some social groups than others. I hope that attention to how these processes work contributes to understandings of why social conflict persists
in an era when conservationists emphasize multiple social uses and values of rural landscapes. After this two-part analysis, I conclude that conflict will always be part of grassland politics. There will be no arrival at a stable, permanent compromise. There is no transcendence of process, which is why knowledge and governmental practices matter so much. A key goal for all involved, therefore, is to try to work within ongoing conflict, negotiation, and accommodation for equitable and ecologically sustainable outcomes.

**Conservation and Power**

The period between 1980 and 2000 was the global “biodiversity phase” (Guha 2000; Zimmerer 2004) for conservationists, which translated into protected area advocacy and new scientific research agendas. In BC, conservationists focused their attention on Churn Creek and federal and provincial governments remapped the space as a rare ecological region, an area of provincial, national, and global significance. When the time came to negotiate regional land use at the Commission on Resources and Environment (CORE), conservationists brought a national park plan to the table. Concurrently, conservationists developed new research programs and 200 new grassland exclosures were installed in BC’s grasslands. These formed the basis of provincial monitoring and became important sites for the production and dissemination of grassland knowledge. Placed on Crown range used for grazing, exclosures were assertions of ecological possibility. By raising questions about what happens on grasslands when grazing is controlled, exclosures allowed ecologists to explore the idea of “natural” change in new ways. These grasslands were no longer simply cattle range. Protected areas and new research programs were two clear examples of how new ecological ideas translate into interventions in a rural landscape.

Grassland conservation is a way of re-ordering human-nature relationships, translating them into objects of knowledge and intervention. In Chapter 2, I described how, over time, different grassland entities became subject to new types of state and scientific knowledge: cattle and characteristics of range productivity in the 1930s; wildlife-livestock interactions in the 1970s; and endangered species and biodiversity in
the 1980s and 90s. By the late 1990s and 2000s, the era of the “working ranches for conservation” compromise, ranchers’ environmental subjectivities are objects of conservationists’ attentions. Ranchers become integrated into state scientific practice; this is what Agrawal calls the creation of “environmental subjects” (2005, chap. 6). Thus, state and scientific knowledge enables all manner of intervention.

Over its many eras, grassland conservationists have regularly sought neutrality and emphasized reason and research when conflict arises. Contemporary grassland conservation is pragmatic, focusing on scientific knowledge and mapping projects to elevate the status of grasslands provincially. However, over time, new initiatives proliferate. More and more people get their information about grasslands from academic-bureaucratic networks; these networks are resilient, dynamic, and strong. As a result, grassland conservation significantly reorganizes the landscape and the lives of people there within. It extends the reach of government into a rural place. Ranchers often become only partly willing participants in activities they may find time-consuming, condescending, or politically ambiguous; there are rewards for participating in such processes but also disciplinary effects. Aboriginal community members, historically marginalized by bureaucratic processes, are currently being invited to participate in new planning and management initiatives. However, these processes reflect academic-bureaucratic assumptions and priorities, and when Aboriginal community members do not participate on these terms, the processes continue unabated. The social meaning of middle Fraser grasslands begins to change in ways outside the control of many people who live and work there.

However, a central argument of my thesis is that conservation does not simply unroll over the landscape and organize nature and human lives according to principles of science and rationality. “Governing does not arise as a fully realized project,” Stephanie Rutherford writes in an article about green governmentality, “but is debated, revised, fine-tuned and continuously in need of re-articulation” (2007, 300). Any order is temporary and partial. State simplifications such as the federal and provincial “eco-regions” maps of the Churn Creek region or the installation of exclosures do enable further practices. These simplifications simultaneously produce the idea of a state that is “above” and “encompassing of” a territory (cf. Ferguson and Gupta 2002, 995).
However, close examination of the material processes of conservation demonstrate that these simplifications are only part of the story. On the ground, governmental activities are part of a broader set of dynamic socio-natural processes. They effect real change, but in ongoing relation with many human and non-human entities.

Conservation is never a purely top-down process of control because, as Tanya Li writes, “programs are configured by the very forces they would contain” (2007, 282). This is evident at Churn Creek, where resistance by ranchers and its landscape forms – its irrigation pipes, industrial haul roads, and logging and mining activity – resulted in a strange compromise. There is a working ranch inside a protected area, the only one in the province. The fact that “programs are configured by the very forces they would contain” is also evident at scientific exclosures, where cattle, meadow voles, trees, and fire challenge previous state orderings. Scientists do not ignore these changes and proceed as if their program was perfect, but continue to adjust and develop new approaches. Science and political rationality develop and intensify through an ongoing cycle of disruption and accommodation; it is through this halting, haphazard process that new governmental knowledge extends into a rural landscape.

In these ways, while describing rationalizing processes of conservation, I also simultaneously sought to undermine the modernist idea that the world can be dominated, controlled, or manipulated in a straightforward way. As physicist-sociologist Andrew Pickering suggested in a 2008 interview, modernity rests on an “ontology of the world as knowable and dominatable,” but that “there’s also this different ontology of the world as a place of becoming, revealing, open-endedness, etcetera, etcetera,” and suggests that the latter is “more fundamental” than the former. In my thesis, I argued that conservationists’ inputs are one set of actions among many. This is a relational view of agency and knowledge, based on now well-known ideas within Actor-Network Theory. Actor-Network Theory shows that, among networks, meanings are created and performed, rather than pre-existing. In ANT, meaning is “always an effect or an outcome of the wider system of relations of which an entity is only a part” (Barnes 2001, 528). By demonstrating conservation’s mixed and partial outcomes, my thesis aims to situate this rationalist project within a broader of context great socio-natural complexity and uncertainty.
Continuing Social Conflict

Grasslands are working landscapes, traditional and unceded territories, and sites of rare, significant ecology. Here I reflect on what these different valuations mean for conservationists who intervene in BC’s rural landscapes. This reflection is based in part on my own experience as an environmental advocate, in ways I soon explain. It is not the purpose of my thesis to describe what “should” happen with grassland distribution and use. There are difficult trade-offs to be made between different uses and many practical challenges that any new initiative will face. The people who spend their daily lives negotiating grassland politics are better versed in these limiting factors than I am. In this section, I situate grassland conservation within larger politics of resource use and gesture toward some of the intellectual accommodations that are necessary in this new era of integrated conservation, as rural landscapes become “conservation territories.”

Throughout the thesis, I have noted that I do not seek to prescribe interventions. This work does not translate directly into a policy prescription or an argument about specific land reallocation or management change. However, I do not maintain that this work is politically neutral. I recognize that, though I do not prescribe certain types of interventions, the work is an intervention itself. Specifically, after many years as a dogmatic, urban-based environmentalist, I wanted to challenge the hubris of such a position. I wanted to highlight the importance of local circumstance and perspective in the conservation politics of a specific place, and to challenge the idea that any single social group could simply transform a place in the image of their ideas. Conservationists were the main target of this analysis but the argument can extend to all participants. This underlying ethic informed my research approach. I began my research interviews in the middle Fraser, wanting to know, in detail, how local people understood the landscape’s social meaning. That I later assembled the work to reflect different social perspectives and detailed, grounded processes of conservation and change further reflects my underlying concern with complexity and multiple meanings. The outcome of this

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62 For example, conservation convenants that bind title appear an ideal way to protect contiguous grasslands via the large property sizes of ranches but, as I described in Chapter 2, there is currently a ban on new covenants in the Agricultural Land Reserve (within which fall most middle Fraser grasslands). New conservation initiatives on working ranches already exist, and to develop new programs requires time and resources that are scarce for both ranchers and many of the conservationists who might undertake them.
intervention is uncertain; I cannot predict how the thesis will circulate or be interpreted and understood. Still, it holds a strong message about environmental politics in this rural landscape.

*Toward Mixed-Use Conservation Landscapes*

Many years ago, I joined an activist camp in a forest a few hours north of Vancouver. An environmental organization had rallied people to come up to protest stop logging and road-building. Among other ecological values, the region was critical spotted owl habitat and, one evening, we left our camp and drove down the highway to an area where one activist said he had seen a spotted owl. A dozen of us walked down a trail to a shadowy grove, and then the activist produced a live mouse from inside a plastic coffee cup. He put the mouse on the narrow branch of a shrub, and the mouse hung upside down. We all stood back about ten feet and waited for the owl. I remember standing in the dim forest, looking around at us in all our yellow raingear. The mouse bobbed on its branch but soon found footing and began to climb down. The activist ran forward and put it back up on the branch. We waited for the spotted owls, which of course never came. When we returned to the camp, the organization’s signs had been torn down and were covered with boot prints. A man beside me said, “Knuckle-draggers” and began taking pictures.

The whole outfits of purple polar fleece that I had are no longer in fashion even in the activist’s world of anti-fashion. That protest camp may have been nearing the end of simpler times for us “enviros” but I think change was for the better. When I stood there, watching the mouse on the branch, I felt odd. When the man said, “Knuckle-draggers,” I felt outright uncomfortable. Even at that age, I didn’t feel more evolved than other people, even if I disagreed with them. It was no longer an abstract case of “logging”; real people worked there. (At the time, I knew that the whole area was Aboriginal peoples’ traditional territory, though without knowing specifically which nation had occupied it or why they did no longer.) That night, we squatted beside our camp stoves in the dripping forest and I felt ill at ease. Were the forestry workers going to show up? What would I say if they spoke to me?
We activists had set ourselves up to police a line between nature and culture, wilderness and civilization. Morally dogmatic and politically naïve, I thought that the best way to protect nature was through adversarial activism. Once I was at the camp, though, the story felt more complicated. My discomfort was an early disruption of my eco-ideology. I describe it because I believe I am an artifact of the transitions within environmentalism: the shift away from uncritical wilderness advocacy toward recognition of the multiple social values on rural landscapes. Whether by ideological change or by necessity, many conservationists now seek to promote environmental protection on working landscapes. This is a global trend (cf. Zimmerer 2000, 2006a), and one evident in BC, where even members of the historically deep green eco-activists Western Canada Wilderness Committee now holds rallies for “endangered old-growth forests” and “sustainable forestry jobs” (Ancient Forest Alliance 2010). What are the consequences of this shift? How does this new perspective on conservation merge or come in conflict with perspectives of other social groups? What additional challenges do conservationists face as a result of the unique colonial history of BC?

In my thesis, I argue that conflict and challenges to collaboration arise because some ranchers and Aboriginal community members are wary of the structures of rationalization within conservation is part. Ranchers see similarities between conservation and past bureaucratic interventions, and neither group perceives bureaucracy as neutral. Ranchers called attention to the how past interventions had not met the stated objectives but rearranged the rights of land users. Even when they agreed with an initiative’s objectives, they were skeptical about how the processes would unfold over time. They perceived state practices as biased in favour of scientific ideas and away from other knowledge of the landscape. Aboriginal community members did not engage as explicitly with the politics of grassland conservation; the issues of historic wrongs and contemporary land rights were fundamental concerns. Interviewees often spoke of past injustices, of diseases that destroyed whole villages and job loss due to ranch mechanization. Many emphasized issues of land title and resource rights, such as the status of a land claim. Aboriginal land use histories and contemporary claims are increasingly routed through bureaucratic networks. However, these networks have not merged with those of grassland conservation.
**Working Landscapes: Ranching and Grassland Conservation**

In my research, I interviewed ranchers first and heard about their mistrust of conservation, their wariness toward the new scientific and bureaucratic processes on grasslands. After these interviews, I wondered if conservationists were the kind of ideologues that I had been, unaware of other social values and perspectives, seeking nature protection at all costs, and imposing their views on a rural landscape. At the same time, it was difficult to locate these conflicts. Ranchers sometimes spoke – usually not by name – of an overzealous government official or a “clueless” ecologist; however, they were respectful of many conservationists and seemed to believe they could collaborate. Then, when I met conservationists, I saw that they were conscientious and well aware of the multiple uses of grasslands. They were not politically naïve, as I had been. So what caused the conflicts? Where, specifically, were problems located?

In my thesis, I argued that these conflicts must be situated in broader understandings of environmental knowledge and bureaucratic process. In BC, rural workers and producers have often borne the burden of changing urban ideals. New ecological ideas change how land and resources are used, and it is often rural people whose livelihoods and daily lives must adjust as a result, and adjust again as new ideas develop. In grasslands, ranchers are wary of people who make new demands, particularly when these demands come without offers of support. New environmental measures have very direct impacts on peoples’ lives, adding burdens in already straightened circumstances. Furthermore, new social understandings of grasslands have unexpected impacts over the longer term, as more and more people become invested in the new meanings of these spaces. My thesis describes how ecological ideas translate into real social change, often in unexpected ways. What will happen as more university students and researchers, government officials, environmentalists, and members of the non-ranching public start to value grasslands as ecological spaces? What will this shift in social perspective mean for ranchers? We are at the early stages of a growing public awareness about grasslands’ ecological significance. Already, though, some ranchers are
concerned that new ideas are changing grasslands’ social meaning in ways outside their control.

“If you eat,” read a rancher’s bumper sticker, “You are involved in agriculture.” The rancher felt the need to assert the significance of agriculture in peoples’ daily lives. The bumper sticker suggests that food producers are not a special interest group but an essential part of sustaining human life. I think that this awareness is a critical part of the consciousness of conservationists and the broader public. The landscape cannot be all wilderness parks. As BC’s population – both rural and urban – rely on necessarily resource consumption, we need models of sustainable working landscapes. As conservationists make demands on resource producers, they must simultaneously consider what support might be needed. They could also recognize that changing ideas about nature often travel circuitous routes and translate into demands. Thus, the burden of adaptation falls differently on resource producers than it does on conservationists. These are important insights as conservationists continue to advocate new forms of environmental protection on working landscapes.

The “working ranches for conservation” compromise is an abstract idea, a safe discursive zone in the contested world of grassland politics. It is an ideal made neutral by its generality. Ranches can be examples of new integrated conservation, where livelihood and ecological sustainability are conjoined. However, the ideal becomes disaggregated in practice; not all ranches can be models of sustainable working landscapes. This disaggregation does not depend solely on the management practices of the individual rancher, though these are important. As I described briefly in Chapter 2, the ecology of individual ranges and the specifics of beef production are clearly relevant. Certain grassland ecosystems may be more significant habitat and/or vulnerable than others, and may be candidates for protection outside livestock grazing. Furthermore, in the larger picture of rural conservation, the economic processes of meat production are important. The industry hopes to restructure toward a more BC-based industry, with local feedlots and abattoirs, targeted toward BC consumers (Government of BC 2009a). What would be the environmental consequences of such a shift? Research into the impacts of the commodity chain would provide more insight into where and how sustainability can be advanced. This work is ongoing in the provincial government and at the BC Cattlemen’s
Association, in partnership with academia and NGOs (Government of BC 2009a, 3). In this era of upheaval and change in BC’s ranching industry, new economic forms and on-ranch practices develop. The outcomes of these changes are yet to be known.

Colonialism, Redress and Grassland Conservation

In 1881, when Reserve Commissioner Peter O’Reilly travelled the region to create reserves, much of the land had already been pre-emted by ranches. As is the case in almost all of BC, Aboriginal people never signed treaties or ceded title to their land. It is now clear that this unjust system of land tenure requires revision, and land and resources will be reallocated back to Aboriginal peoples. The treaty process is the primary vehicle for addressing post-colonial land and resource reallocation in the area but treaty agreements for many communities appear distant prospects. A February 2009 offer by the federal and provincial negotiators to the NStQ (the Treaty Society for the Northern Secwepemc) was rejected; in June 2009, the NStQ made a counter offer for roughly ten times the land in the governments’ offer and more than 3.5 times the amount of cash (MacInnis 2009a, 1; Silver 2009). Meanwhile, in large part in response to court cases such as Delgamuukw v. British Columbia, Haida Nation v. British Columbia, and Taku River Tlingit v British Columbia, new institutions have proliferated. Among Aboriginal leaders and community member there is much uncertainty about whether these processes will translate into real change, and many people are ambivalent about working within the bureaucratic systems they have spent years trying to fight.

Once after an interview, I sent an Aboriginal interviewee a story I had written. The story included some small details she had raised; I wrote it as a process of reflecting on our discussion (i.e. not for broader circulation). She wrote back that she liked the phrase, “Left standing in this misunderstanding.” In the story, the phrase arose as the character felt misunderstood, unable to explain himself, and watched his interlocutors drive away. The physical feeling of being trapped in other peoples’ misconceptions was something that resonated with this interviewee. In Chapter 4, I described how a woman felt that, when she spoke at a large public meeting, people were looking at her thinking, “Just an Indian” (2008). “Colonization runs deep,” she said. I had not thought about the
meeting’s format, but if I had, I probably would have assumed it was inclusive and open. Meanwhile, this woman felt a sense of unease and dislocation when she spoke. Aboriginal people are now invited to participate in many bureaucratic processes, but to do so must navigate difficult emotions and contradictory allegiances.

Contemporary resource politics that proceed on assumptions of neutral and equality miss a central point: bureaucracy is not an open, neutral process of “rational” administration. It does not invite equal, open participation and weigh different perspectives and claims evenly, one against another. Historically, bureaucracy reflected broader social values of settler society and resulted in a massive reordering of Aboriginal lives. The burden of accommodation and change lay with Aboriginal peoples. In the 1993 Cariboo-Chilcotin Justice Inquiry in Williams Lake, Judge Anthony Sarich soon found that Aboriginal peoples’ concerns (“complaints”) were not simply about the court system and police but “about all non-native authority structures bearing on their lives” (1993, 26). “These complaints are long-standing and insistent,” he wrote. “They are a product of a conflict of cultural values and beliefs and are driven by the past and present conduct of non-native authority figures. And these complaints go back to the first contact with Europeans” (Sarich 1993, 26). The testimonies Sarich heard reflected a perspectives on problematic Aboriginal-settler society relations that could not be confined to a single issue. Such was the case with the grassland debates; for Aboriginal peoples I interviewed, issues of colonial injustice arose at many points. Colonial history and contemporary resource politics are intertwined.

*Grassland Conservation and Aboriginal Title*

In an imagined work plan for grassland conservation in BC, different organizations can do different things. This leaves an important question: who will advocate an agenda for grassland protection that addresses the historic injustices of colonial resettlement? Some conservationists and environmental organizations will have neither the will nor the capacity to develop collaborative projects with Aboriginal communities. Conservationists may also be wary of alienating ranchers, who are concerned about loss of land through the treaty process. However, we need advocates
who see colonial redress and ecological protection as important political aims. These two aims are not always mutually supportive. As land is redistributed, Aboriginal people will be make decisions about resource use and development; conservationists may have to negotiate contradictory commitments. Conservationists and ranchers have developed the “working ranches for conservation” compromise as an overarching framework within which areas of mutual agreement and support can be cultivated. What are areas of overlap and common aim between conservationists and Aboriginal peoples? How can the issues of Aboriginal title and grassland conservation in the middle Fraser be made to speak to one another in ongoing ways? This is complex and case-specific; it may involve, for example, proposing co-management of protected areas (as one Aboriginal interviewee advocated in the case of Churn Creek), supporting ranch management on reserves, collaborating on restoration projects and/or comprehensively consulting Aboriginal peoples about future initiatives on Crown range. Of course, specific examples are case specific, dependent on local circumstances. An awareness of how Aboriginal peoples may experience bureaucratic processes within a broader historical understanding of dispossession and marginalization might be supportive in this endeavour. At the same time, as I next describe, long term relationship-building may be key in developing productive, mutually beneficial arrangements involving conservationists and Aboriginal community members.

Research Gaps

 Seeking a balanced perspective on grassland politics, I set out to interview different social groups. This is a “stakeholder” approach to land politics, which assumes a neutral arena of participation and information-sharing. I set out to conduct information interviews, and proceeded to contact people on the list I had developed. I was persistent to the degree I felt was appropriate. However, several Aboriginal community members did not return my phone calls or respond to emails. I visited the band and treaty offices when I was in the area. I remember phoning one Treaty Coordinator to request an interview. She was reticent and said she would meet me only with other members of her community’s treaty-making team. This was in contrast to the conservationists who met
me freely and shared information more openly. After my research, I was left with the sense that I had not done enough, as I did not interview key people from certain middle Fraser communities.

In particular, the input of the Canoe Creek chief, land manager, and community members (especially those who ran the haying operation) would be critical to an in-depth analysis of the Aboriginal perspectives on the Churn Creek Protected Area. Why did the shared operations (i.e. between members of the Canoe Creek community and the Holmes family) break down? What does the NStQ’s counter-offer to federal and provincial governments envision for Churn Creek? As I have argued throughout the thesis, integrated conservation on rural landscapes – the creation of new “conservation territories” – takes on an added dimension in post-colonial BC. These are not just working landscapes, but unceded traditional territories. However, I am at this time unable to fully address many important intersections of Aboriginal values and rights with protected area creation at Churn Creek.

I am critical of these gaps, and they have become source for further reflection. After my research, I questioned the information interview approach to research involving Aboriginal community members. I saw I had structured the project based around research questions developed before the interviews began, and did not know the kind of work that might be useful to Aboriginal communities in the region. Since completing my research, I have reflected on opportunities for research that develops in response to questions or information needs of individual communities. At the same time, I have begun to question my role as a researcher. I have found it meaningful to work in support of other projects, such as developing a manual and workshops for Aboriginal community members to conduct historical research on their reserve lands and traditional territories. I hope to continue to work in a supporting role and to pursue research and writing projects if they develop naturally from these undertakings.

Environmental Protection

On a site just north of Crow’s Bar, there are Aboriginal petroglyphs carved in a low black riverside stone (Image 7.1). The images show people, deer, and other images.
All around lie the cobbles left by placer miners, as well as a storage shed built into the hillside, and remnants of tools and sluice boxes. There is a red, rusted, abandoned car with bullet holes in the frame and no doors. This site lies on the riverbank near the winter range of the O.K. Ranch, one of the largest ranches in the middle Fraser. It is also a site of ecotourism; a Yale-based rafting company regularly stops there to show its clients. A chronological history of the region, such as the one I provided in the introduction, describes changing histories as if they are eras, one passing cleanly into the next. Being out in the landscape suggests that many human uses and values exist concurrently, in complex negotiation with one another and the specifics of the place.

Image 7.1: Petroglyphs near Crow’s Bar

In travelling the middle Fraser, I often wondered – what physical remnants will these current grassland debates? The landscape will change as a result of contemporary politics. I imagined visiting in thirty years. Will there still be ranching? What lands will
be returned to Aboriginal peoples and how might they decide to use it? Will Churn Creek remain a provincial protected area? As I asked myself these questions, I always returned to a strong hope that the middle Fraser will retain its grasslands. I hoped simultaneously that the social groups presently involved in the grassland debates in the region could develop productive, working compromises to sustain livelihoods and the fragile regional ecology. Considering the loss of these grasslands to subdivision and development, I often felt the sense of an imagined future loss that was familiar to me from my earlier days as a wilderness advocate. I strongly related to the conservationists who sought different forms of environmental protection, and spoke of the significance of middle Fraser grasslands. I had the strong affective sense, as I know many conservationists do, that these landscapes were worth protecting.

In this thesis, I have described the many challenges conservationists face. Still, I often think of one conservationist who lives in the Cariboo-Chilcotin and works closely with many government agencies, Aboriginal communities, ranchers, and NGOs. This person knows the landscape intimately and is a strong advocate for grassland protection. At the same time, he is well-respected by ranchers and the broader conservation community; I heard only respectful comments about him. Work in the hands-on, day-to-day negotiations of the grassland debates is a fraught, challenging, and highly politicized undertaking and yet this conservationist is able to carefully navigate many different interactions and political arenas. I began to see that he embodies a key attribute of a successful conservationist in a contested, emerging conservation territory: the ability to build relationships. What are the components of this ability? This is a fascinating question, the root of a potential study on people who are sources of social connectivity in resource politics. Still, from research and my limited experiences with BC resource politics, I believe that relationship building requires long term commitment to a place, open-mindedness to different perspectives, and an ability to work through conflicts in transparent ways.

In the end, resource politics are dynamic and political and will always involve conflicts; there is no stable, permanent compromise to be achieved. In the 1990s, the New Democratic Party developed CORE to resolve conflicts through multi-stakeholder planning and zoning, by developing land use plans that divided land among stakeholders.
However, conflicts did not disappear and often were entrenched (cf. Mou 2002; Reed 2003). The Churn Creek Protected Area compromise sought to establish a mixed use area to accommodate multiple demands, but management challenges and conflicts continued. The idea that land use conflicts can be settled by land use zoning overlooks the fact that conflicts are ideological and performed in ongoing ways as different people encounter each other at many sites. The grassland debates will always involve conflicts; the goal is not avoid such conflicts but, rather, to learn to work within them for equitable and ecologically sustainable outcomes.
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Appendices

Appendix A

Interviewee Consent Form (Sample)

THE UNIVERSITY OF BRITISH COLUMBIA

CONSENT FORM FOR RESEARCH INTERVIEWS

To [INTERVIEWEE]:

The purpose of this letter is to invite you to participate in a research project called “Claiming the Range: Grassland Conservation in British Columbia.” The Principal Investigator for this study is Dr. Trevor Barnes, a professor in the Department of Geography at the University of British Columbia in Vancouver, Canada. This study will be the Doctor of Philosophy (PhD) thesis for the co-investigator Joanna Reid, a graduate student in the Department of Geography at the University of British Columbia. Ms. Reid will be conducting interviews for this project. If you have any questions about the research or the interview process, please feel free to ask Ms. Reid (telephone: [removed], email [removed]). For additional questions, you may contact Dr. Trevor Barnes (telephone [removed], email [removed]). The project is funded by a grant from the UBC Faculty of Graduate Studies.

The purpose of this project is to examine how grassland ecology and ranching have come together in different ways at different points in time in BC. As well, this project examines the recent ways in which people have tried to conserve grasslands in the Fraser Canyon (between
Lillooet and Williams Lake), particularly through stewardship, research, and protected areas. The project also examines how First Nations have participated in these conservation initiatives and/or been affected by them. The research results, using group data only, will be shared in academic publications and in presentations at academic conferences.

Research Interviews
The research for this project includes a total of about forty interviews with members of First Nations, ranching, government, and grassland conservation communities. The interviews will take place between June and December 2007. You have been invited to participate in this study because of your position as [POSITION], your work on protected areas, your involvement with the Grasslands Conservation Council, and your experience in range science and conservation.

Confidentiality
If you agree to participate in this research, you will be interviewed. This interview will last between forty-five minutes and one and a half hours. Information that you provide during the interview will be used in Ms. Reid’s PhD thesis and in scholarly articles. However, your identity and any details that could be used to identify you will not be released in any publication and will remain confidential. All materials that are collected during the course of the study, including audio recordings and transcripts of your interview, and any notes taken during the interview will be used only by Ms. Reid. Only Ms. Reid and Dr. Barnes will have access to these materials. These materials will be stored in a locked file cabinet in Ms. Reid office, and computer files will be password protected.

The Interview Process
You are in no way obligated to agree to be interviewed. If you agree to be interviewed and during the interview do not wish to continue, you are under no obligation to finish the interview. You may also request that all notes collected during the interview and any audiotape of the interview are destroyed. If you decide to be interviewed and feel uncomfortable being audio-taped, please let Ms. Reid know, and she will not record the interview. Furthermore, if you have any questions or concerns about your rights as a research subject or specifically how you have
been treated in the course of the interview, you may telephone the University of British Columbia office of Research Services at [removed].

Your signature below indicates that you have received a copy of this consent form, that you read and understood the form, and that you agree to be interviewed for this study.

_______________________________________
Printed name of Interviewee

_______________________________________    _____________
Signature of Interviewee                        Date
Appendix B
The Gesture (Short Story)

That summer two Indian boys, teenagers, got themselves in a smash-up on the road down south of our ranch. Their bodies hung in a tree for three full days, mainly because the police did such a half-assed job looking. The car was a rusty reserve beater and it spun out at the hairpin near the bridge. The boys flew through the air and ended caught up in the branches of one of those old man pine trees, with roots as knobbly as swollen old fingers. Those trees been up against all kinds of drought, snow, not to mention the canyon wind, so holding a couple of bodies up for a few days must’ve felt like light work.

The wind here is really something. When the wind stops blowing, people fall over. That’s the first thing you got to know for anything else I say to make sense. The other thing is you got to be able to picture the river. The river glides on through like a fat snake minding its business when along the banks all kinds of people and animals are near dead from being so parched. Especially now, at the end of summer, when all the cows are rattling around in the pebbles where the streams used to be.

I tell you, that river is smug. When the gold miners were first up here, they didn’t have refrigerators for their meat so they used to tie up live sturgeon at the bank, cutting off fat steaks to sizzle on the fire. Those dinosaur fish stayed all hurt and trapped in the dark silt while folks onshore warmed themselves with flesh and fire. I know it’s not the river’s fault that it kept on flowing past, tearing at the scales of fish big as two men. Rivers don’t stop for no one. But still. You gotta know that ours isn’t one of those twinkling blue water affairs like in Ireland or the Garden of Eden.

Indians on the coast sometimes buried people in trees, in coffins on platforms way up in the branches like a crow’s nest on a ship, as if all set for look-out. Around here, though, they dug into the hard-packed dust and laid bones in the ground. The accident wasn’t news because kids from the reserve were always doing things like that, driving the backroads all breakneck – reckless or drunk or both in smashed up cars. People were mad, though, about them being hung out all that time, and it made the newspaper.
I was reading the newspaper when my dad came into the kitchen. He brought the paper from town when he went in last week to judge the regional livestock competitions. In the end, the families found them and they had to use a stepladder to bring the boys down. I looked at the pictures, sad blurry shots of kids with mussed-up hair. I knew one of them. He’d helped out at the ranch during haying season. He’d seemed a quiet kid, with eyes so dark they were near black.

“People are pissed about that,” my dad said, looking over my shoulder. “Can’t say I blame them, eh?” He poured water and grinds into the big metal kettle and set it on the stove to boil into the thick black coffee that fills his thermos and stains his teeth. He leaned back against the counter, crossed his ankles, and looked at me.

“What’re you doing today?” he said. “Nope, actually, I don’t want to hear it. I got something better for you. I need you to go check on the site.”

“What?” I said. “By myself?”

“Yep,” he said. “You can take the screamer.”

The screamer was a wrecked truck that my brothers pulled up from a steep canyon wall. The roof was caved in, but they lay on the seats and kicked it back out again. It broke down pretty regular, and the brakes squealed because of all the dust and sand. But it worked. Seeing as I was still pretty much a kid, the chance to drive the screamer anywhere made for an adventure. I looked around the kitchen and out through the window to our alfalfa fields on the other side of the river. There wasn’t much around here to be done except chores, anyway.


That’s how I found myself there that day, crossed over the river and way up in the north end of the ranch by the Indian reserve, supposed to be counting plants and whatnot. When I stopped the truck, a cloud of orange dust swept past like a ghost racer taking the lead.

The site was a fenced-in area where the cows weren’t supposed to graze. Ministry of Environment people were setting these sites all up and down the canyon, trying to figure out what’d happen to the grasslands without cows roaming around with their sharp hooves. My dad didn’t want the government folks traipsing in and out of our property in their jeeps, bringing in weeds on their tires, so he said he’d take care of it himself.
“Not much of a deal,” he said. “I do the work and they put their names on all the reports.”

He came to like it, though, because watching the grassland change was slow but satisfying. Things took a long time to grow in the dry, dusty heat.

“It’ll probably take thirty years before you really see much change,” the Ministry woman said, “Perhaps fifty years before you get full vegetation cover.”

Actually, like most things the government says, that was at best only part true. The site was changing all the time, even with the time of day. Leaves and flowers turned with the sun and the plants stood taller with a bit of rain. All the bugs laid low in the hot afternoon sun, and got busy around dinnertime, flitting and humming about. After about a year of looking after the site, we found a sharp-tailed grouse nest, cosied right up underneath a sturdy tuft of blue bunchgrass. My dad just wrote it in the book and told me to keep out of that part of the site from then on, but I could tell he felt glad.

I dropped my equipment over the fence: the book, measuring tape, and a one-yard striped pole. I climbed in and looked over the plot. I knew every grass and shrub. I started gathering up some of the yellow, sun-bleached skeletons of dead plants, fallen all about themselves pretending bare soil was a battleground.

“Hey, Jones!” a voice said. When I looked up, I saw an Indian boy up sitting on the fence at the other end of the site, only about five yards away. I knew he was one of the Sam kids, maybe the second oldest. He was looking at his lap, rolling a cigarette, tearing the tobacco thin so it would lie right in the papers. I wondered how long he’d been sitting there.

“Yeah, what?” I said. “What are you doing here?”

“Just checking on this area here,” he said. “Making sure there’s the right number of blades of grass growing in all the right directions.” He licked the papers and sealed his smoke, twisting the ends.

“This is our property,” I said.

“Nope,” he said. “Your lot ends about ten yards up that way. This is Crown grazing land if it’s anything. So what’re you doing here?” He pointed at my equipment. “Are you really counting grass?”
I looked down at the pile I had gathered at my feet, a whole nest of dried grass and twigs. “Something like that,” I said. When he didn’t say anything, I said: “Government types want to see what grassland looks like without cows eating on it.”

“You don’t look like a government man,” he said, smiling and lighting his cigarette in a cupped hand.

I shrugged.

“Last week I saw a bighorn in here, eating,” he said. “I thought, ‘the Jones family’s got themselves a pet sheep.’ Then he just jumped right out again.”

“Yeah?” I said. I thought about that for a moment. The sheep are a pain, getting into everything nowadays. We laugh when we see them licking at the same salt block as our cows because everyone’s all fluttering about how they’re an endangered species, sensitive to humans.

“Well, that’s okay, I guess, eh?” I said. “Sheep are part of nature so that’s alright.”

“Is that right,” he said, raising his eyebrows. “Huh.”

We both looked away, down toward the river at its annual laziest.

“I’m sorry about the boys,” I said, then. “That was really sad.”

“Yeah,” he said, looking down.

With that, he turned around, hopped off the fence, hitched his pants up, and wandered back toward the reserve. I kneeled and opened the book to see about starting back into work. When I looked up again, he was gone and the whole reserve skyline of low, cheap-made houses was smeared away in the yellow glare of the almost noon sun. All I could see was the square white church tower above it all.

Right then, I smelled smoke. At that time of year, the whole canyon is like a giant tinder pile and I knew to get far away from fire as fast as I could. At first, though, the smell was small and pretty, like the light smoke of burning sage the Indians think cleans away bad spirits. It didn’t take long to see that the smoke was coming from inside the Site. I scrambled through the brush and tried to stamp out the fire, but it just kept smoldering, spreading sideways from the rubber soles of my sneakers. I could see small flames climbing right up inside the blue bunchgrass.

“Damn!” I shouted.
I picked up my gear, jumped the fence, and ran back to the truck. As I slammed the door, I could see red and orange crackling through the sage. The last thing that I saw before I drove off was our grouse, flapping straight up out of the smoke. By the time I made it over the bridge to our ranch house, the fire was ripping through all the grasslands on that side of the river. My family came down from the fields and corrals and watched, safe with the river between us and the flames. By the time the helicopters flew over to drop great buckets of water, the fire had even burned above the treeline and turned the local timber merchant’s lot into charcoal. The fire died down with a sizzle at the south end when it hit the neighbour’s irrigation pipes.

That night at dinner I tried to tell my dad about our grouse flying out but he didn’t let me finish.

“For Christsakes,” he said, looking down. “Some people experienced much worse.”

His voice sounded tight as if he were holding in a cough. Then he went out to see about a couple of cows that’d gone missing down in the gulley. He didn’t finish his dinner. Most nights he has two helpings.

No one knew about the Sam boy except me and my dad and he didn’t want us to tell. A couple years later, he got over being so mad about his grazing land. Every so often, he’d mention it to me when we were alone in the truck, or out in the fields doing the haying.

“Good thing the wind was blowing that way,” he said, one time. “Otherwise he’d have burned up his own reserve.”

“Probably all right in the end,” he said, another time. “Indians been fire-setting since long before ranchers showed up here.”

He laughed, but not because it was funny, and turned on the tractor again and then we couldn’t even hear ourselves think over the noise of the engine.