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REMAKING NATURE IN MONTANA: TOPOPHILIC CONSIDERATIONS OF WOLVES AND WOLF TRAPPING

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TOPOPHILIC CONSIDERATIONS OF WOLVES AND WOLF TRAPPING

By

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Abstract

In 2011, after nearly forty years of federal protection, the gray wolf was removed from the Endangered Species List in Montana and its management entrusted to the Montana Fish, Wildlife & Parks. The implementation of public trapping seasons in 2012 as a method to control wolf populations has further inflamed an already embroiled debate. The purpose of this research was to investigate how the presence of wolves and wolf trapping impacts human attachments to landscapes of "nature" in Montana by focusing on the following questions: What are the public's social constructions of wolves? What are the public's social constructions of wolf trapping? How do these social constructions impinge upon and remake people's attachments to nature?

This research is guided by four geographical concepts: landscape, nature, wilderness, and topophilia. Nature is understood as the non-human environment (e.g., rivers, trees) but also as a culturally mediated knowledge, an idea that is used to describe and construct the natural landscape. Wilderness, though closely related to nature, is regarded as a symbolic idea that serves to transform nature into a more pure or raw state. While these landscapes are certainly full of non-human elements, what is felt and experienced is profoundly human. It is these emotions and attachments that transform the non-human world into what we call 'nature' and 'wilderness'. The concept 'topophilia' is used to refer to these bonds with nature as a way to understand how wolves and wolf traps remake nature in Montana.

A discourse analysis was conducted of public discourse occurring in Missoula and Hamilton, Montana. The core assumptions of discourse analysis have roots in post-structuralism and social constructionist theory. While there is no clear agreement on the relationship between these two bodies of theory, they each similarly claim that reality is a cultural product established through some form of discourse. Discourse analysis is used to look at how the world is made meaningful by identifying and investigating claims of truth and knowledge. This was achieved by collecting letters to the editor, guest columns, and online comments from the major newspapers in each study site between 5/9/2012 and 2/28/2014. Data were imported into NVivo, thematically coded, and analyzed for patterns.

Results reveal that people construct wolves and traps in vastly different ways which has important implications for what nature means in Montana. For some, wolves are a critical component of nature and serve to transform it into a seemingly more balanced and wild state. For others, wolves are constructed as cold blooded killers and a plague force that jeopardize nature. Trapping, then, is framed as an essential tool to restoring human control over a landscape perceived as infested with wolves and restoring game herds to sufficient levels for public harvest. Still others frame trapping as a dangerous threat to their safety, kids, and pets, creating a landscape of fear and apprehension. These diverging constructions and topophilic natures are indicative of an issue that has haunted the West for the better part of two decades, and continues to pose a significant challenge for natural resource and wildlife managers. By describing how people construct knowledge about wolves and wolf trapping, these findings may serve as a useful guide to understanding the social dimensions of wolf management and recovery and help managers navigate policy in a landscape of conflict.

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Chapter One: Introduction

Problem Statement

Gray wolves (*Canis lupus*) are powerful animals that evoke strong emotions and a range of mental images. For some, wolves are critical to ecosystem health, for others they are a symbol of governmental overreach threatening their livelihoods and cultural values. It is these conflicting meanings, among others, that have become the source of contentious sentiment that surrounds wolf recovery and management (Scarce 1998; Wilson 1997). In 2011, after nearly four decades of federal protection and management, gray wolves were removed from the United States Fish and Wildlife Service's (USFWS) list of threatened and/or endangered species known to occur in Montana via a U.S. congressional budget rider and their management entrusted to the Montana Fish, Wildlife & Parks (MFWP – Montana's fisheries and wildlife management agency). The implementation of public wolf trapping seasons by the MFWP as an additional method to control wolf populations and minimize perceived negative impacts (e.g., livestock depredation, dwindling game populations) has further inflamed an already embroiled debate (Associated Press 2012; Backus 2013; Boone 2014; Field & Stream 2012; Maughan 2013; Scott 2012). Trapping has a long history in Montana, but its continued practice has become a divisive topic. Advocates of trapping cite its utility as a management tool and its importance as a recreational activity, and cultural heritage. Reasons for opposition include moral objections to killing animals, principles of fair-chase, and concerns with market-driven harvesting (Footloose Montana 2014; Organ et al. 2001; The Wildlife Society 2010). The use of wolf trapping as a management tool has compounded tensions surrounding wolves and trapping resulting in a landscape fraught with animosity, distrust, and interest groups anxious for action. As the debate over wolf recovery and management spreads across northwestern United States (Le 2011), and

trapping becomes an accepted management strategy, it is critical to understand what wolves and wolf trapping mean in Montana.

Statement of Purpose

The purpose of this study was to discern and analyze the various meanings of wolves and wolf trapping that are being constructed within Montana, and how they relate to human attachments to landscapes of nature. This was achieved through the analysis of local discourse related to wolves and wolf trapping with a focus on the socially constructed meanings of these phenomena and their implications for people's affective bonds to the natural landscapes they share with wolves and wolf trapping. Discourse from two western Montana communities, Missoula and Hamilton, was gathered from local newspapers and online forums. Both communities are surrounded by numerous established wolf packs and wolf trapping is often practiced in surrounding areas.

In this study, *discourse* is conceptualized as interrelated communications and texts that render the world comprehensible and meaningful (Foucault 1972; Phillips and Hardy 2002; Potter and Wetherell 1987). Within this definition, *text* is defined as any discourse which is recorded through some medium[1] such as writing, photography, or video in contrast to other forms of discourse which are not, such as dialogue or sign language. *Discourse analysis* is used to determine how these meanings come to be and how they construct reality (Waitt 2005; Wetherell, Taylor, and Yates 2001). Here, reality is understood as a social construction, the result of humans bestowing meaning upon the natural world (Berger and Luckman 1966; Greider and Garkovich 1994). Our access to reality is only through cultural filters, and meanings are constructed and reified through social discourse (Phillips and Jørgensen 2002). Thus, *social*

[1] This would also include post-structural notions of landscapes as "text" in that landscapes may be regarded as a historical account or record which geographers may access and investigate with particular analytical tools (for example see Cosgrove 1985 and Duncan and Duncan 2009).

constructions can be understood as meaningful interpretations of reality formed through discourse.

In an effort to investigate the meanings of wolves and wolf trapping, this analysis will focus on discourse within the first two seasons of public wolf trapping in Montana. While discourse related to trapping as a wildlife management tool and general practice existed prior to proposed implementation, the focus of this study is on wolf traps and trapping on the landscape, not the decision making process that has led to it; therefore, more general discourse concerning wildlife trapping that occurred prior to wolf management by Montana is not considered.

Research Questions

This research is guided by three overarching questions:

- What are the public's social constructions of wolves?
- What are the public's social constructions of wolf trapping?
- How do these social constructions impinge upon and remake people's attachments to nature in Montana?

Discourse that directly addresses how wolves and wolf trapping bear upon people's attachments to the landscapes they share with wolves is likely not prevalent. So, in addition to analyzing such cases as are presented, this study will use these constructions of wolves and wolf trapping to deduce their consequences upon human attachments to place. For example, if an individual expresses fear or disgust of trapping, it can be deduced that the implementation of wolf trapping likely has a negative impact upon their emotions and cultural attachments to the landscapes in which trapping occurs. This is because the landscape as they know and experience it is threatened. While the physical landscape itself continues to exist and fluctuate through human changes in policy, the ability to experience the landscape can be impacted through

changes in policy and management. For example, managers can choose to increase harvest quotas, or open and close particular hunting districts across Montana.

Significance

The politics surrounding wolf recovery and management are primarily a struggle between cultures and values (Nie 2001, 2002, 2003); at root it is a contest of symbols and meanings that is played out upon the landscape (Scarce 1998; Wilson 1997). It therefore requires analysis by a field of research concerned with human relations with the Earth; that field is geography. The management of wolves is a critical regional issue with wide-ranging implications and deserves to be addressed further and more clearly by geographers.

While some geographers have addressed the role of animals in symbolic landscapes and human identity, none of this work has explored social constructions of wolves or wolf trapping with respect to human attachments to nature. Emel (1998) has written about wolves from what she calls a left-green ecofeminist perspective, illustrating the European conquest of the West and the role of masculinity in the extirpation of wolves. Proctor (1998) investigated the "contested moral landscape" regarding the debate over a proposal to list and protect the spotted owl under the Endangered Species Act (ESA) in the Pacific Northwest. He remarks that, far from a debate about owls, this debate was rooted in moral oppositions over the "good of nature," transforming the owl's habitat, old growth forests, into a symbolic landscape of morality. Brownlow (2000) approached this topic from a social-physical perspective evaluating the proposal to reintroduce wolves in the Adirondack Mountains in New York noting that we must consider both the physical and symbolic landscapes in which wolves are reintroduced. Waley (2000) has written about the role of animal symbolism in the creation of space and meanings. He used a case study in Japan to exemplify how the presence of fish changed human experiences within a highly

urbanized area while also exemplifying this phenomenon within broader Japanese cultural values.

Database searches within the *Annals of the Association of American Geographers*, *The Professional Geographer*, *Progress in Human Geography*, and *American Geographical Society's Focus on Geography* for key words such as, "wolf trapping," "wolf tolerance," "wolf attitudes," "wolf perceptions," "carrying capacity," "wildlife management," "endangered species," "reintroduction," and "animal symbolism" yielded no relevant results. While this certainly does not encompass the entirety of geographic literature, these journals are considered to be among the more preeminent professional publications within the field of geography.

Although no studies on human-wolf relations have been published with an explicit focus on trapping in any field, research on human perceptions of wolves and wolf management has been conducted by researchers in various disciplines. Much of this work has been published in journals without a specific concentration on geography (e.g., *Human Dimensions of Wildlife*, *Society & Natural Resources*, *Biological Conservation*, C*onservation Letters*, *Wildlife Society Bulletin*). While these studies (most of them grounded in attitude theory and research) have produced information and knowledge that can be used to better understand, predict, and shape some of the human dimensions of wolf management, they often lack explanatory and descriptive data that are generally revealed through qualitative research (Shelley, Treves, and Naughton 2011). Additionally, because attempts to control or change attitudes toward wolves and wolf trapping would likely be met with little success (Bright and Manfredo 1996; Bruskotter, Vaske, Schmidt 2009; Lynn 2010; Meadow et al. 2005), developing additional knowledge that helps stakeholders and agencies navigate the conflicting meanings fueling the debate rather than trying to change them may lead to a more meaningful and productive discussion. A quote by Lynn

(2010, 77) aptly portrays this notion, "the point is not to predict or determinatively explain what people and organizations do. That is not possible with human and some other beings. Rather, the purpose is to reveal the discursive dynamic that constitutes, at least in part, our individual and collective stance toward wolves in the world." It is this intention to move beyond predictive and deterministic models utilized by previous research that is at the core of the methodology employed here.

The discourse surrounding wolf recovery and management is one of the most palpable stories of wildlife policy in recent history: it is liable to weigh heavily upon evaluations of the ESA and its continued use (Wilkinson 2011). Furthermore, the effectiveness of the ESA is limited by our understanding of human values, public opinions, political and policy processes, and communication. These factors often determine whether an endangered species is successfully recovered; it is not a question of science, but rather of values, ethics, and politics (Nie 2001). The wolf has become a symbol of the ESA and the federal government's ability to achieve its objectives. We possess the technical ability to recover the viability of wolves, but our ability to socially accept them is a critical part of the success or failure of their recovery. The future of environmental policy and the protection of similarly contentious wildlife species, such as the grizzly bear, will be shaped by the recovery of the wolf. As such, this study will provide some very specific insight into human relations with a reintroduced species that has not previously been addressed by biologists, natural resource managers, or geographers, which could prove extremely useful when considering future ESA recovery and/or reintroduction efforts.

This research is informed by geographical concepts such as human attachments to place (Tuan 1974) and human constructions of landscape and nature (Castree 2005; Castree and Braun1998; Daniels 1989; Duncan and Duncan 2009; Lewis 1979; Meinig 1979). As this study

will be qualitative in nature, drawing upon discursive methods rooted in post-structural theory, it will provide a unique perspective that has been only minimally utilized by previous scholars on this topic. Further knowledge about human-wolf relations could help identify commonalities among interest groups and prove valuable in helping managers navigate and possibly mollify the perpetual tension surrounding wolves that continues to haunt the West (Shelley, Treves, and Naughton 2011). Understanding how society experiences nature, the environment, and landscape is critical for effective planning and design of the world we share with other humans and non-humans (Lowenthal 1968). This knowledge could be used by agencies such as the MFWP that are responsible for managing wildlife and must take into consideration the myriad of values that sometimes conflict, particularly related to predator management.

Chapter Two: Background and Literature Review

In order to establish the context in which this research is situated, this chapter presents a brief overview of the history of wolf-human interactions in the American West up to the present time, an overview of the geographical grounded theoretical foundations of this thesis, and a detailed summary of previous research on human perceptions of wolves and wolf recovery and management.

A Brief History of Wolves in the American West

This section reviews the history of wolf-human interactions in the United States beginning with early Euro-American colonial and territorial expansions, later reintroduction efforts, the current state management era, wolf trapping, the ecology of wolves, and finally a short discussion of the significances of the presence of wolves in the landscape.

Early History of Wolves in the United States

The history of wolves since Europeans began to settle the North American continent has been dramatic, controversial, and not without plenty of blood being spilt both literally and figuratively. Gray wolves once roamed throughout large regions of North America, and concerning this research, in Idaho, Montana, Wyoming, South Dakota, and eastern sections of Washington and Oregon (Figure 1). As Euro-Americans began to move westward, wolves' natural prey such as bison and other ungulates were decimated. People began raising families in this new frontier and they altered their surroundings to fit their needs. With new settlers came new animals such as livestock which, because natural prey was scarcer due to increased human activity, became easy targets for wolves. This change in landscape effectively defined the wolf as undesired and out of place; wolves and humans could not survive together. With the closing of the American Frontier (Turner 1893), active predator control, including strychnine poisoning,

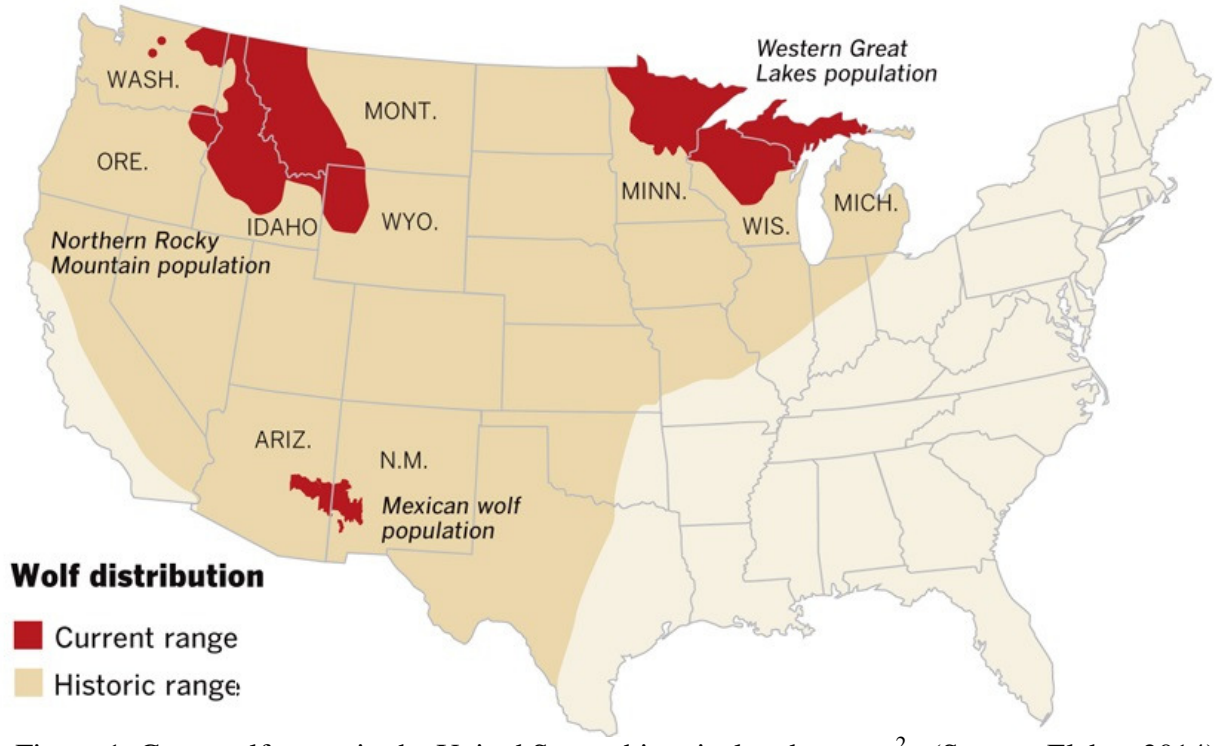

Figure 1. Gray wolf range in the United States, historical and current[2] (Source: Elebee 2014)

trapping, and shooting, became the norm across both private and public lands (e.g., national parks, national forests, rangelands) lasting through the 1920s. After the 1930s no recorded wolf packs existed within the U.S. portion of the Northern Rocky Mountains.[3] While there continued to be reports of wolves roaming throughout the western U.S. between 1927 and 1966, there were not enough to suggest the existence of established packs (USFWS 1987).

The Euro-Americans held very negative perceptions of wolves as evidenced in folk tales such as *The Boy Who Cried Wolf*, *Little Red Riding Hood*, *Peter and the Wolf*, and *The Three Little Pigs*. These perceptions were brought to North America from Europe and helped to fuel the wolves' extirpation from the United States. Wolves became the martyr of all predators, taking

[2] The historic range of gray wolves should extend east to include the southern Great Lakes region and the northeastern U.S. states.
[3] This research focuses only on wolves in the Northern Rocky Mountains, however, wolves continued to exist in far northern Minnesota and on Isle Royale in Michigan (USFWS 2011).

the blame for other feared species such as cougars and bears. They were therefore more zealously killed than any other animal (Emel 1998). Hatred and fear of wolves was so powerful that it was an honor to have killed one (Wilkinson 2011). However, as Americans' views of the natural environment began to change in the late 1960s through the 70s, public attitudes toward wolves began to shift from being focused on persecution to restoration (Bangs et al. 2009).

Protection, Reintroduction, and Recovery, 1970s – early 2000s

Gray wolves were listed as an endangered species immediately following the enactment of the ESA in 1973. This listing provided protection in the contiguous United States, but also conferred upon the USFWS responsibility for their recovery and management. In 1995, gray wolves were captured in Alberta, Canada, and reintroduced to Yellowstone National Park in Wyoming and central Idaho in an area composed of three wilderness areas; Frank Church-River of No Return, Selway-Bitterroot, and Gospel-Hump.[4] In the areas of reintroduction, largely because of staunch opposition from groups who feared that these new wolves would decimate their industries and livelihoods, the USFWS granted the reintroduced wolves significantly less protection than was afforded to non-reintroduced wolves (Bangs et al. 2009; Nie 2003; USFWS 1987).

Section 10(j) of the ESA authorizes the federal government to release populations of a listed species; such released populations are designated as experimental, non-essential and receive the same protection afforded to threatened species, a lower protection level than endangered. This designation was adopted in an effort to assuage the concerns of local interests as it allowed for troublemaking wolves to be dealt with and killed if deemed necessary. This designation permitted the USFWS to reintroduce wolves into a highly contentious sociopolitical

[4] By this time, wolves had already begun to repopulate Montana through natural dispersal. Indeed, a wolf pack was known to inhabit the Ninemile Valley in northwest Montana in 1989 (Bass 1992).

environment by providing flexible management and partially alleviating fears that may have led to widespread poaching. This move was highly controversial. Some totally opposed the reintroduction. Others disagreed with the experimental, non-essential designation stating that this would threaten the few scattered wolves that allegedly still existed in Yellowstone; wolves that had not been reintroduced through human efforts and were thus still afforded full protection under the ESA (Bangs et al. 2009; Nie 2003; USFWS 1987). However, after a series of lawsuits, the10th Circuit Court of Appeals ruled in favor of reintroduction (*Wyoming Farm Bureau Federation et al. v. Bruce Babbitt, Secretary of Department of Interior; et al.*).

Delisting, Litigation, and State Management, 2003 – present

In 2003, the USFWS reduced protection status from endangered to threatened[5] for all wolves within the Western Distinct Population Segment (DPS),[6] a region encompassing Montana, Idaho, Wyoming, Washington, Oregon, California, Nevada, and parts of Utah and Colorado (Figure 2). On February 27, 2008, the USFWS announced the establishment and immediate delisting of the Northern Rocky Mountain (NRM) DPS (Figure 3) from federal protection citing that population goals established in the original recovery plan had been met and exceeded. [7] This DPS includes wolves within Montana, Idaho, Wyoming, the eastern third of Washington and Oregon, and a small section of northern Utah. Shortly after this announcement, conservationists, animal rights activists, and other wolf advocates filed a lawsuit against the USFWS demanding that wolves be relisted under ESA protection (*Defenders of Wildlife v. Hall*).

[5] This designation provides authority for some state management agencies and the USFWS to take (kill, wound, trap, or move) individuals of a threatened species under circumstances specified in the ESA (USFWS 2003).
[6] A Distinct Population Segment is a species classification used by the USFWS for the purposes of species protection and management under the ESA. A population that is either discrete or significant may be considered a Distinct Population Segment (USFWS 1996).
[7] The population goals of the original recovery plan, approved in 1987, were to maintain at least 10 breeding pairs over 3 successive years within Montana, Idaho, and Wyoming for a total of 30 across all three states (USFWS 1987).

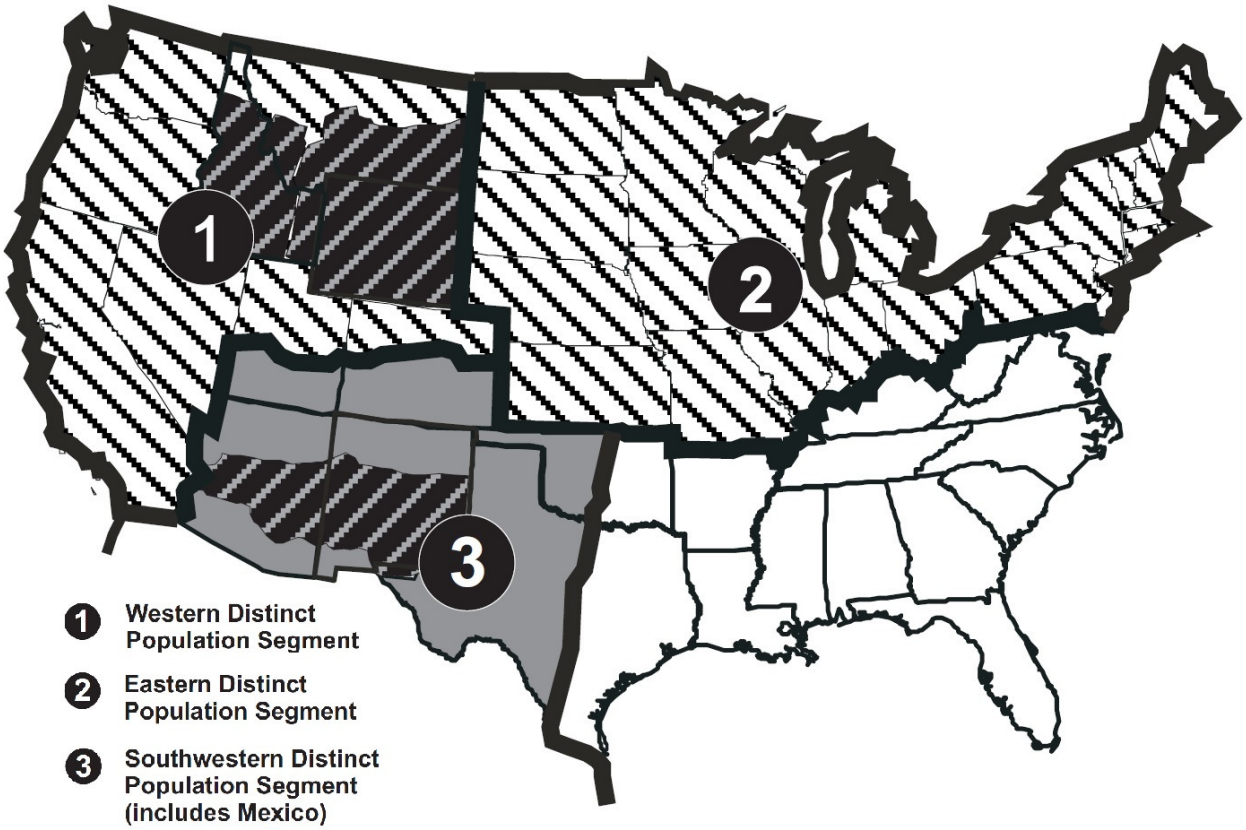

Figure 2. Map of the USFWS Gray Wolf Distinct Population Segments (Source: USFWS 2003)

In October 2008, U.S. District Judge Donald Molloy rescinded the USFWS decision to delist wolves from ESA protection citing that genetic exchange required for the perpetuity of the species, as outlined in a 1994 Environmental Impact Statement written by the USFWS prior to reintroduction, had not been met; the NRM wolf population was returned to ESA protection (*Defenders of Wildlife v. Hall*). On March 6, 2009, the Secretary of the Interior, Ken Salazar, announced that the USFWS would remove NRM wolves from federal protection in Montana and Idaho. The USFWS rule delisting NRM gray wolves in Montana an Idaho became official on May 4, 2009, and the first regulated wolf hunts began in September 2009 under the direction and management of the states. In 2010, Judge Molloy once again reinstated wolf protection citing that the decision to delist had been made based on political boundaries rather than science and

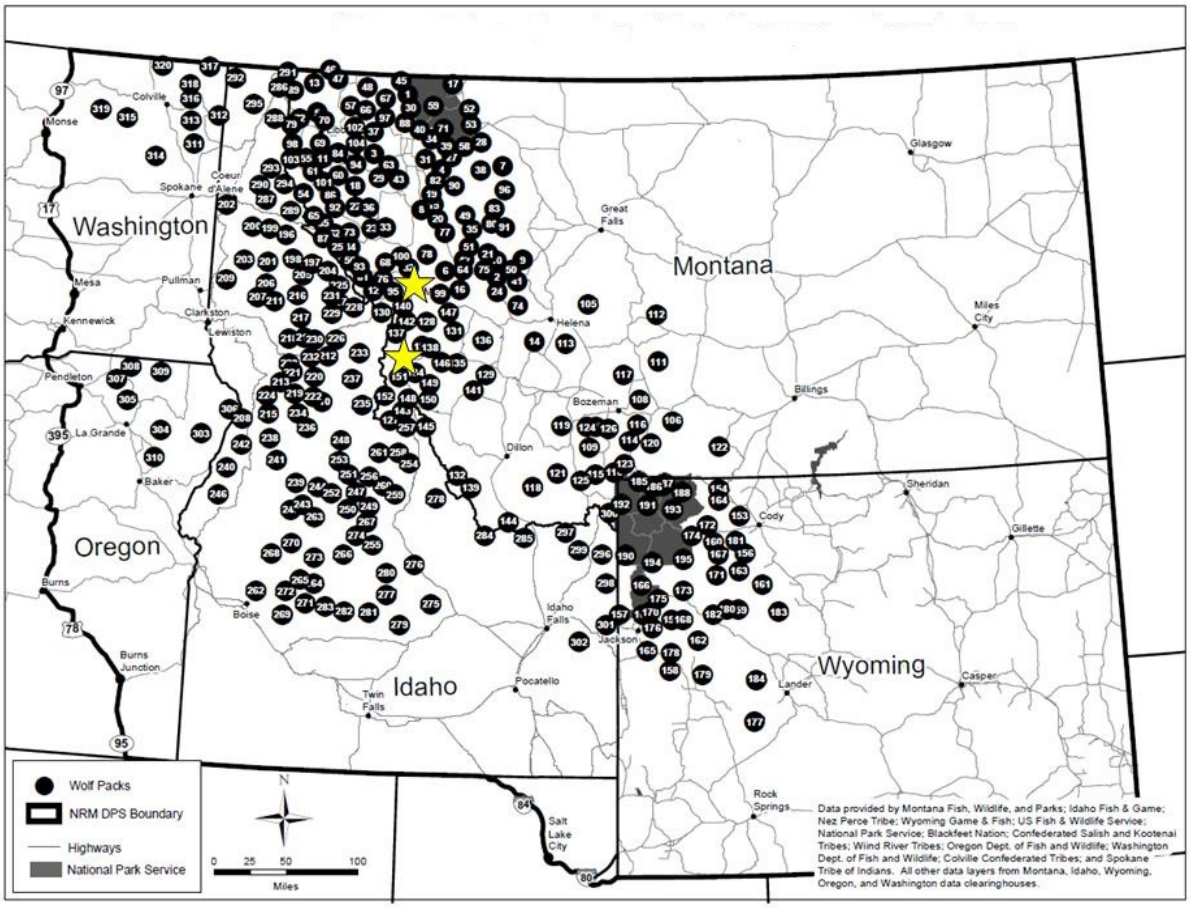

Figure 3. Wolf packs in the NRM (stars represent study sites; Source: USFWS et al. 2014)

therefore did not comply with delisting requirements as mandated by the ESA (*Defenders of Wildlife v. Salazar*).

Following Molloy's ruling, wolf hunts in Montana and Idaho were halted. On May 5, 2011, the NRM wolf population in Montana and Idaho was officially delisted through a legislative budget rider passed by Congress, an act that effectively prevents judicial review (IDFG Wolf management/status timeline; International Wolf Center 2015). This delisting removed ESA protections for wolves and entrusted their management to Montana and Idaho. Wolves were eventually delisted in Wyoming in 2012 following the approval of its management

plan. However, on September 24, 2014, the Federal District Court in Washington D.C. rescinded this delisting and returned wolves in Wyoming to ESA protection as an experimental, non-essential species. Judge Amy Berman Jackson ruled that, while wolves are not endangered or threatened in a significant portion of their range, the USFWS's decision to allow Wyoming to manage wolves without a binding promise to maintain the minimum number of wolves stated in Wyoming's recovery plan constituted an arbitrary and capricious action by the USFWS thus warranting their return to federal protection and management (Center for Biological Diversity 2014).

As part of the original recovery plan, at least 30 breeding pairs must exist across Montana, Idaho, and Wyoming. Theoretically, if each state maintains 10 breeding pairs of wolves, the biological intent of the USFWS recovery plan would be met. However, rules reissued since delisting state that if populations drop below 150 wolves and 15 breeding pairs over a three year period or 100 wolves and 10 breeding pairs at any time in either Montana, Idaho, or Wyoming, the USFWS can initiate a status review and appropriate management and reinstate ESA protection if it sees fit (MFWP 2002, 2011). Since delisting, all three states[8] have sought to reduce wolf populations to minimum required levels in an effort to minimize impacts upon livestock and game animals while maintaining their authority to manage wolves.

Idaho has implemented wolf hunting and trapping seasons since 2011. Montana implemented a hunting only season in 2011-12, and hunting and trapping seasons since 2012. Wyoming implemented hunting only seasons around Yellowstone and Teton National Parks in 2012-13 and 2013-14 while across the rest of the state wolves were able to be killed year round through various means under state management. The removal of wolves from federal control, and the implementation of state agency wolf management via hunting and trapping, has ignited

[8] Including Wyoming during its brief state management tenure.

emotions among different interest groups including ranchers, conservationists, hunters, environmentalists, and animal rights groups.

Wolf Trapping

Trapping has been part of human culture since the pre-historic age of our hunter-gatherer ancestors. Furbearers, animals that are harvested for their fur and other resources, provided the basic essentials for survival such as meat for food and fur for warmth (Organ et al. 2001). As human development progressed, furbearers became a marketed commodity. The first species to be commodified via trapping was the beaver. Beaver fur was taken from cured pelts and made into felt for hats. In the early 1800s, The Missouri Fur Company established trapping posts along the Missouri and Yellowstone Rivers throughout eastern Montana. The early years of fur trading in the West relied upon native trapper/hunter systems in which Native-Americans would come to trading posts to sell their furs in the market. However, when the American Fur Company replaced the Missouri Fur Company in 1826, a new approach to fur trading was established. This new approach consisted of sending large groups of primarily non-native trappers to harvest furbearers throughout the year culminating in an annual meeting with company agents to trade furs for manufactured goods (Picton and Lonner 2008).

As evidenced by its deep-rooted history in Euro-American westward expansion, trapping has a longstanding heritage in the West. Successful trappers must possess great knowledge of the land, flora, and fauna. As such; trapping provides opportunities for promoting stewardship values. Trapping is also practiced for recreation and as an outdoor lifestyle, and for some, as livelihood (The Wildlife Society 2010). Trapping continues in Montana and Idaho as a state-regulated activity managed as a recreational activity and management tool by the Montana Fish Wildlife and Parks (MFWP) and the Idaho Department of Fish and Game (IDFG). Today,

trapping occurs across private and public lands throughout both Montana and Idaho (Montana Fish, Wildlife & Parks. Wolf trapping certification classes.).

Trapping has been used to manage furbearing populations such as beaver, coyote, bobcat, and marten, among many others. In some places, trapping has been used to protect other species. For example, predators such as foxes and coyotes have been trapped in efforts to protect animals such as sea turtles, black-footed ferrets, and whooping cranes among other rare species (The Wildlife Society 2010). Trapping has also been utilized as a method to protect livestock and agricultural lands (Montana Fish, Wildlife & Parks. Wolf trapping certification classes.).

Trapping was one of many methods used to eradicate wolves from the West in the early 1900s. However, since the ESA listing of wolves, wolf trapping has been absent from the landscape until Idaho implemented the first post-ESA wolf trapping season in 2011. Currently, annual trapping is used as a management strategy for wolf populations in Montana and Idaho. Using trapping alongside other management tools such as hunting, state wildlife agencies hope to bring wolf populations into balance with the habitat (and prey) as well as with the values and tolerances of local residents (IDFG 2014; Montana Fish, Wildlife & Parks. Wolf trapping certification classes.). While wolf trapping was allowed in Wyoming, it was not regulated as an annual harvest as in Montana and Idaho. All wolf trappers in Montana and Idaho must attend a wolf trapping certification class and purchase a license. The wolf trapping classes cover topics such as: trapping ethics, trapping regulations, wolf management, wolf habits & behavior, equipment and techniques, caring for a harvested wolf, and reporting requirements (IDFG 2014; Montana Fish, Wildlife & Parks. Wolf trapping certification classes.).

As trapping continues throughout parts of the West, it remains a divisive issue. Reasons for opposing trapping are varied. Some oppose it entirely citing moral objections to killing

animals, whereas others may only disagree with some aspects of it such as certain methods of trapping (The Wildlife Society 2010). When the tensions surrounding trapping coalesce with those relating to wolves, reactions and emotions are sparked. For instance, when the decision to allow wolf trapping in Montana was announced, protestors took to the streets throughout some cities (such as Missoula) in an uproar, displaying stuffed toy dogs in traps and likening trapping to torture and traps to landmines (Beechie 2012; Chaney 2012).

What differentiates wolf trapping from other furbearer trapping is not necessarily the activity itself, but the combined discordance of perceptions and concerns regarding both trapping and wolves. As hunting is another widely utilized wolf management strategy, it must be recognized that wolf hunting is wholly dissimilar from wolf trapping. While some hunters support trapping as a viable activity, others are adamantly against trapping in general. Footloose Montana, a group that opposes trapping on public lands, is one such example. Though not strictly a hunter group, a portion of their members do identify as hunters, claiming that trapping often entails baiting, non-target catches, and methods of killing such as drowning, strangling, and crushing, all of which conflict with the hunter ethics of fair-chase. Others cite the commodity aspect claiming that hunters kill only for food whereas trappers often kill to procure pelts to sell, arguing that the market-driven commodification of furbearers conflicts with principles of conservation which many hunters espouse (Footloose Montana 2014).

Ecological Role

Previous scientific studies have shown wolves to play a crucial role in the biological community, such as controlling populations of large herbivores. Within the setting of Isle Royale, moose populations and wolf populations have fluctuated correspondingly which, as David Mech claims, may signify a natural rise and fall in predator-prey populations. Interactions

between predator and prey species have been instrumental in the development of each species, thus the absence of these relationships may promote ecosystem imbalance. Wolves also contribute to stronger ungulate populations and a more robust biological community by targeting weaker or sick animals (easier prey to catch), often regarded as a method of efficient population control (Mech 1970; MFWP 2002).

The ecological benefits of reintroducing wolves into their former territory may act as an effective method of passive restoration (Ripple and Beschta 2007). Within the Greater Yellowstone Area, cottonwood and aspen trees experienced sharp declines in numbers during the 20th century. This decline is often attributed to high numbers of elk and other ungulates that have grown in density with limited ranges of movement across the landscape. Cottonwood and aspen trees are species of plants that promote ideal ecological conditions for beaver, which also are seen as important to ecosystem integrity in many ways. Since the reintroduction of wolves, these woody browse plants have increased in numbers providing suitable habitats for a growing beaver population (Painter and Ripple 2012; Wilkinson 2011), which interestingly, are also a target prey species for wolves (Soulé and Noss 1998).

The Wildlands Network, a non-governmental organization that promotes environmental conservation throughout North America, identified the wolf as an important focal species because of its ecological role and because the habitat required for wolves is associated with the same factors that promote healthy overall ecological conditions (Nie 2001, 2003). Reintroducing large predators into their former territories may promote ecosystem resiliency and other healthy ecological conditions (Ripple and Beschta 2012). Wolves have also been identified as a key species in rewilding efforts, not only for their role in ecological communities, but for their symbolic presence as well. An approach or concept that is rooted in conservation biology,

rewilding seeks to restore ecological integrity across broad regions (such as the Northern Rocky Mountains and Great Plains). The three major characteristics of rewilding are large protected core reserves of land, connectivity between these core lands, and the existence of large predators such as wolves, cougars, and bears for the regulatory roles that they play in ecological systems (Soulé and Noss 1998). In short, wolves are considered by some as an important keystone predator and an essential component to maintaining healthy ecosystems.

Wolves in the Landscape

Wolves were eradicated from the landscape because their existence was no longer welcomed. Bringing wolves back into the landscape assumes that there is a physical and cultural space that will welcome their existence and allow their survival (Brownlow 2000). Wolf depredations related to cattle, sheep, dogs, and other animals have increased steadily since wolves were reintroduced in 1995 (Table 1), and efforts to mitigate these effects have led to hiring specialized hunters to track down and kill wolf packs (Barker 2013). Some individuals have deployed defensive methods of wolf control such as electrified fences, sirens, flashing lights, and guarding livestock throughout the night (Wilkinson 2011). The presence of wolves in the landscape has altered human activities, either through trying to get rid of wolves or in trying to coexist with them. This can be observed on a physical scale (e.g., new fences, lost livestock, new traps, dead wolves) as well as an intangible scale (e.g., loss of a sense of safety, heightened apprehension, vilification). The continued recovery and management of wolves infuses meanings into the landscape that can reinforce or alter human constructions of wolves and the landscapes they share.

Meanings of landscape dictate what actions, animals, uses, and other activities are suitable and acceptable, and these are generally determined through social processes. These

Table 1. NRM Wolf Depredations by state 1987-2014

(Within the NRM Federal Recovery Area only; does not include Oregon, Washington, or Utah. See Table 7c.)

YEAR	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	TOTAL
Montana																													
cattle	6	0	3	5	2	1	0	6	3	10	19	10	20	14	12	20	24	36	23	32	75	77	97	87	74	67	50	37	810
sheep	10	0	0	0	2	0	0	0	0	13	41	0	25	7	50	84	86	91	33	4	27	111	202	64	11	37	24	8	930
other[3]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	0	3	2	2	14	16	6	11	1	3	4	1	72
dogs	0	0	0	1	0	0	0	0	4	1	0	1	2	5	2	5	1	4	1	4	3	2	4	2	2	1	0	1	46
wolves moved	0	0	4	0	3	0	0	2	8	22	20	0	14	6	17	0	0	0	0	0	0	0	0	0	0	0	0	0	96
wolves killed[2]	4	0	1	1	0	0	0	0	0	5	18	4	19	7	8	26	34	40	35	53	73	110	145	141	64	108	75	57	1028
Wyoming																													
cattle									0	0	2	2	2	3	18	23	34	75	54	123	55	41	20	26	35	44	41	56	654
sheep									0	0	56	7	0	25	34	0	7	18	27	38	16	26	195	33	30	112	33	6	663
other[3]									0	0	0	0	1	0	0	0	10	2	0	1	0	0	0	1	1	1	1	0	18
dogs									0	0	0	3	6	6	2	0	0	2	1	0	2	0	7	0	1	3	1	0	34
wolves moved									0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
wolves killed[2]									0	0	2	3	1	2	4	6	18	29	41	44	63	46	32	40	37	43	33	37	481
Idaho																													
cattle									0	1	1	9	11	15	10	9	6	19	20	29	53	96	75	75	71	73	46	43	662
sheep									0	24	29	5	64	48	54	15	118	161	184	205	170	218	324	148	121	312	413	100	2713
other[3]									0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	5	0	1	1	12
dogs									0	1	4	1	7	0	2	4	5	3	9	4	8	12	13	0	6	2	5	3	89
wolves moved									0	1	0	3	5	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	20
wolves killed[2]									0	1	1	0	3	11	7	14	7	17	27	45	50	108	93	78	63	73	94	67	759
Total, 3 States																													
cattle	6	0	3	5	2	1	0	6	3	11	22	21	33	32	40	52	64	130	97	184	183	214	192	188	180	184	137	136	2126
sheep	10	0	0	0	2	0	0	0	0	37	126	12	89	80	138	99	211	270	244	247	213	355	721	245	162	461	470	114	4306
other[3]	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	5	10	5	2	3	14	17	7	15	7	4	6	2	102
dogs	0	0	0	1	0	0	0	0	4	2	4	5	15	11	6	9	6	9	11	8	13	14	24	2	9	6	6	4	169
wolves moved	0	0	4	0	3	0	0	2	8	23	21	3	19	16	18	0	0	0	0	0	0	0	0	0	0	0	0	0	117
wolves killed[2]	4	0	1	1	0	0	0	0	0	6	21	7	23	20	19	46	59	86	103	142	186	264	270	259	164	224	202	161	2268

1 Numbers of animals confirmed killed by wolves in calendar year. Excludes Oregon and Washington. See Table 7c.

2 Includes wolves legally shot by livestock owners. Others killed in government control efforts.

3 Total livestock other than cattle and sheep confirmed killed by wolves 1987 - 2014: 28 llamas, 39 goats, 24 horses, 4 miniature horses, 3 shetland ponies, 3 domestic bison, 1 donkey See Interagency Report narrative for compensation paid in each state.

(Source: USFWS et al. 2014)

meanings will often change over time, and what is not acceptable at one point may be totally acceptable at another time (Brownlow 2000). Throughout the U.S., social processes (e.g., policy, public meetings, and regulations) often define how a landscape is used. Ensuring that the wolf has a landscape in which to exist in perpetuity requires understanding what wolves mean to people under new regulations and practices, such as wolf trapping.

Theoretical Foundations

Now that the history of wolves and trapping has been reviewed, discussion will now turn toward the theoretical and geographical roots of this thesis. This begins with a general discussion of post-structuralism and social constructionism, followed by nature as a social construction, and

finally attention to affective experience of landscape undergirded by Tuan's concept of topophilia.

Reality as a Cultural Phenomenon

The core assumptions of the methodology employed in this thesis (discourse analysis) have roots in post-structuralism and social constructionist theory. While there is no clear agreement about the relationship between these two bodies of theory, it is at least helpful to say that they are both highly influential with respect to discourse analysis (Phillips and Jørgensen 2002).

Post-structuralism is generally considered a reaction to structuralism (hence, the "post" label). Therefore, a brief discussion of structuralism must accompany any discussion of post-structuralism. Structuralism emphasizes the power of organization or an overarching system. A good example is Marx's "base and superstructure" principle in which the base (means of production) determines the superstructure (culture, institution, state, etc.). This is particularly evident in structural Marxism as purported by the likes of Althusser (2006).[9] In general, structuralist approaches seek to explain the world through universalizing structures, the thought being that cultural phenomena can only be understood through the systems that relate them. In contrast, post-structuralism claims that cultural phenomena can only be explained by considering the creation, assertion, and interpretation of different knowledges. For example, a structural approach may attempt to explain the conflicting meanings arising in the wolf debate as the byproduct of some overarching structure, such as regional economics, while a post-structural approach might see these meanings as products of cultural knowledge that can only be understood by investigating both the knowledge that has produced these meanings (e.g.,

[9] Marxist theory has not always been viewed from a strictly structural perspective, see Lukács' (1923) work on alienation and class consciousness for an example of Marxist humanism and Hartmann (1979) for an example of Marxist feminism.

discourse) and the meanings themselves (e.g., social constructions). Post-structuralism posits that meaning is not innate in language. A language means nothing to those uneducated to its use. It is only through repeated use of language that we begin to form a meaning of the language (Belsey 2002) In this way, post-structuralism conceives reality not as some exoteric phenomenon which can be measured and analyzed objectively (as in structuralism), but rather as a situated understanding of the world that is subject to cultural interpretations, a notion which is further elaborated upon in social constructionist thought.

Social constructionism is a theory which states that all knowledge or truth is established through social interaction. Over time, representations of these interactions are constructed and reinforced through repetition and habituation. From this, come "appropriate" actors and roles for each member of society. As new generations of society are born into these roles, without knowledge of where or how these roles originated, interactions become institutionalized and embedded into the social fabric (Berger and Luckmann 1966). This process of knowledge construction may be easily forgotten. When this occurs it becomes institutionalized. Through a social constructionist lens, knowledge of the world is not a direct reflection of reality, but rather, a social construction produced and maintained through social processes.

From post-structuralism we understand that meaning is not innate in texts, only through the repeated use of texts is meaning produced (Belsey 2002). Continuing along this thread of thought, Greider and Garkovich (1994) state that meanings are not innate in nature but are produced through social processes that define what our relationship with nature should be – nature is a social construction. Furthermore, Wilson (1997) maintains that meaning is not innate in "wolves;" rather, wolves are used to symbolize what different social groups define to be

"correct" or "proper" (455). It is within this realm of thought that a discursive analysis is most useful.

From this theoretical framework we cannot access reality as external to society, we can only access knowledge *of* reality as produced through social processes. For example, while there are still undiscovered wonders in our universe that exist beyond our human reach, once we take a photo of a nebula, land a rover on a planet, or name a star, it becomes subject to social knowledge. While these phenomena (nebulae, planets, stars) of course exist regardless of whether we acknowledge them or not, our acknowledgement of them either through photography, names, or otherwise creates signifiers, socially created symbols that render these phenomena comprehensible and meaningful to us.

The Social Construction of Nature

The works of Berger and Luckmann, particularly their book *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* (1966), are fundamental to any discussion about the social construction of nature. They claim that there is no intrinsic meaning in the physical world; we only come to know, understand, and experience the world through a cultural filter. Reality "as we know it" is a product of social processes that become habituated into society and make the world meaningful; it is a social construction formed through discourse. Likewise, nature is a social construction.

There is no inherent meaning in nature. Nature, as we know it is a symbolic landscape produced through social processes; it reflects and defines our image of ourselves and our bond with itself (Greider and Garkovich 1994). While the landscapes we typically denote as "nature" or "natural" are certainly full of non-human elements (e.g., wolves, trees, rivers), what is felt and experienced in nature is profoundly human. It is these human emotions and experiences that

transform the physical landscape into what we call nature (Cronon 1996a, 1996b). In this thesis, Castree's (2005) use of the term *nature* is used here to refer to the non-human world, including such phenomena as forests, lakes, birds, trees, and other things that are generally and implicitly accepted as "natural."

Our perceptions of the world are derived from our knowledge and representations of it (e.g., paintings, photographs, books, news reports, scientific studies). There are a plethora of nature representations, many of which conflict and compete for our attention. These representations mediate how we understand nature and what we think it should look like (Castree 2005). Our understandings and perceptions of nature are not our own, they are shaped and influenced by what others say about it as well.

Cosgrove (1985) and Mitchell (2005) describe landscape as a visual power of composition, a "way of seeing" that is ideologically infused. Similarly, DeLuca and Demo (2000) investigate how images of nature have been constructed in Yosemite National Park through landscape photography. They claim that Carleton Watkins' 1860s photographs of Yosemite Valley have created a way of seeing nature in America that continues to survive today, often through environmentalist claims for preservation. While these photographs did in fact play a role in the creation of Yosemite National Park, they take the argument further by claiming that these photographs are not only representations of nature, but constitutive of nature; they create an idea of nature through its representation. While Yosemite Falls, Half Dome, El Capitan, and all of the other physical features exist at a material level regardless of photographs, these photographs create and imbue iconic meanings to these features through photographic composition, they present a particular vision of the landscape, visions that have effects. One of the more apparent examples of this is that his photographs depict a vision of Yosemite devoid of

people even though the Ahwahneechee people had inhabited the valley less than 10 years prior. This erasure of the Ahwahneechee people, they argue, contributes to the myth of Yosemite as "Edenic" or a "pristine paradise" sheltered from human impacts. This removal of Indian presence along with notions of a pristine uninhabited wilderness exemplifies the constructedness of nature. One of the more dismal effects of this view of nature, beyond the continued subjugation of Indians, is that this removal of humans from nature creates an existential paradox wherein if the mere presence of humans spoils nature our only recourse is suicide to protect nature from ourselves (Cronon 1996b). Such an dramatic interpretation sheds light on the value of studying nature as a social construction by revealing the absurd consequences of some perspectives and opening up dialogue for critical reflection.

Although the substance and scope of investigations by geographers who have studied the social construction of nature is fairly broad, they share a common concern that our ideas of nature are really just ideas while too often we confuse these ideas with what really is "out there," independent of us. Castree (2005) identified three main branches of this work: myths (Demeritt 2002; Fairhead and Leach 1996; Forsyth 2003), hegemony (Moore 1996), and discourse (Cronon 1996a; Guha 1994; Wilson 1992). It is the latter of these, discourse, that relates most directly to the idea of a discursive production of nature. Without going into too much detail prior to the following theoretical discussion, discourse can roughly be understood as language or communication that is used as a mechanism to transform the vapid physical world into a meaningful world of symbols and values (Cosgrove and Jackson 1987). Geographers interested in the discursive production of nature do not assume that a singular reality of nature exists, but instead seek to reveal the plurality of nature as produced through discourse. There are multiple natures born out of a myriad of competing representations. These representations determine what

is perceptible as nature. Our understandings and perceptions of nature are a product of discourse.[10]

For some that still adhere to the traditional "nature versus culture" dichotomy, this notion of a socially constructed nature signifies the end of nature. This line of thinking often leads one to believe that nature must be protected from human impacts. For others though, nature is not something that needs to be protected, but rather an ideal that has effects. From this perspective, one seeks to understand how social constructions of nature are created, who creates them, and what are the social and ecological consequences (Castree and Braun 1998).

For the purposes of this thesis, nature is regarded as a social construction. This is not meant to deny the reality or importance of the non-human[11] elements that continue to exist in nature regardless of how we think of them (e.g., rivers, wolves, trees). Rather, it is argued that because we cannot know nature apart from culture, our understandings of it are always culturally mediated. Nature is not strictly natural. In fact, our perceptions of nature have undergone many shifts throughout history. Only in the mid 20th century and up to the present day has nature taken on such a strong meaning so as to motivate the U.S. government to set aside large tracts of land to preserve its existence. Nature is not so much a non-human place separate from humans but rather a non-human place where we often have profoundly human experiences, experiences that are undergirded by cultural values (not everyone experiences nature the same way). Nature "as we know it" is a cultural phenomenon.

Topophilia: The Experience of Landscape

The term *landscape* is derived from the German word *landschaft* which generally refers to the shape of the land or the extent of a piece of land (Duncan and Duncan 2009). However,

[10] Even though personal experiences and observations shape our understandings of nature, they are still informed by discourse because we ourselves cannot exist outside of a discursive reality.
[11] Refer to Castree's (2005) definition cited above.

when approached from a cultural geographical perspective, landscape has come to be understood as much more than just a region of land. Landscapes can be thought of as material idealizations, simultaneously physical and symbolic (Daniels 1989). Lewis (1979) claims that many of the physical[12] landscapes in the United States have been altered by man effectively transforming them into human landscapes which have cultural meanings.

Landscapes are not simply what we see, hear, or smell, but also the thoughts, images, and feelings within our minds (Meinig 1979). For example, "downtown," "main street," "suburbia," or "the beach" are terms that are used broadly across the World; they usually do not refer to any specific place, but rather, to constructed ideals ingrained in cultural values (Duncan and Duncan 2009). Nature, too, is an ideal rooted in cultural values.

While we may like to think of Yellowstone National Park as a natural landscape protected from human intrusion, one could hardly argue that it has not been transformed by humans. Indeed, evidence of human presence is apparent as roads and other facilities that would otherwise not exist and are certainly not the part of the natural landscape that visitors seek to experience (people do not travel across the country to stare at wooden pathways or vault toilets). Although the presence of humans is not necessarily synonymous with intrusion, the presence of humans in Yellowstone is undeniable. While visitors usually come to experience the unique physical attributes such as geologic features, wild animals, and rugged terrain, it is also a cultural experience of America's wilderness, the nation's first national park.[13] For example, many wolf watchers in the Lamar Valley of Yellowstone have described their experience as "authentic," citing the ability to see wolves in their own habitat as opposed to a zoo. Others, however, have expressed less enthusiasm because the wolves have been handled by humans (e.g., wearing

[12] This refers to the biophysical realms of the world. For example, the non-human.
[13] Bogdkhan Uul in Mongolia was first protected in the 1500s by the Ming Dynasty and officially established by the Mongolian government in 1778 making it the oldest national park in the world (Bedford 2009).

collars for monitoring and management) seemingly rendering them less wild than wolves in the backcountry away from the prying eyes of humans (Montag, Patterson, Freimund 2005). These differing interpretations of viewing wolves in Yellowstone draws attention to the underlying cultural lens through which nature is experienced. Yellowstone is renowned for its physical landscape but it is not experienced in a vacuum devoid of cultural values or meanings. In fact, these cultural values are *central* to Yellowstone's perceived natural beauty.

In 1974, the prominent geographer Yi-Fu Tuan demonstrated how cultural meanings of landscape change. He states that *wilderness* has been associated with many meanings throughout history. Negative connotations of wilderness can evoke stories of demons and desolate land condemned by God. For many pioneers, wilderness was seen as an obstacle to overcome, a constant threat to their livelihoods that must be tamed. However, as human development progressed and population increased, there was a growing concern, mostly within the literary and artistic communities, that the American wilderness was quickly disappearing. During the mid-1800s some individuals spoke out and called for its preservation, eventually leading to the creation of Yellowstone National Park in 1872.[14] Since this time, wilderness has been associated with such human experiences as harmony, peace, and refuge. However, the irony in preserving wilderness, Tuan argues, is the fact that wilderness only exists in the mind, it is only an ideal imbued upon the physical. The landscapes we typically designate as wilderness are simply spaces we can allow our ideas of wilderness to exist, and thus, experience. This notion is further reinforced by Cronon (1996a, 1996b) who claims that wilderness and nature are not strictly non-human domains (though there are certainly non-human elements), but rather places of cultural experiences where what we might call the "wilderness experience" exists.

[14] I do not refer to wilderness as defined by the Wilderness Act of 1964, rather, the idea of wilderness which Tuan and Cronon speak of.

The symbolism associated with meanings of landscape significantly influences human understandings of spaces and places. These understandings are not just functional, but emotional as well. Tuan uses the term *topophilia* (from Greek *topos* "place" and *philia* "love of") to refer to these emotional bonds with a place. He states that, when compelling, topophilia can transform a physical environment into an emotionally charged landscape holding many meanings and symbols. Landscapes are not just the material components (e.g., sky, land, sea), but also the visual and aesthetic components that give way to human experiences and affective emotions. For Tuan, then, landscapes only become meaningful human landscapes through the feelings and emotional attachments that we have to them.

Animals play a critical role in the human experience of landscapes. In a highly urbanized area in Japan there is a stream named Komatsugawa Shinsui Kōen ("affection-for-water" park). This stream was an artificial creation engineered to look as natural as possible. However, this steam lacked a critical element in natural systems; there were no fish in the stream. The residents demanded that fish be released into the stream thereby completing the intended naturalistic impression (Waley 2000). Similar to the fish, the wolf is a symbol that defines the landscape in different ways for different people. The reintroduction of wolves and the subsequent implementation of wolf trapping further perpetuate how wilderness is experienced. Thus, when considering the meanings of wolves and wolf trapping within the context of cultural landscapes, it is imperative to consider how these meanings influence people's attachments to these landscapes.

Main Geographical Insights

Landscape refers to the cultural meanings and values assigned to the physical environment. These values and meanings set parameters for how people behave, relate,

experience, and live in landscape. In this way, landscapes are contested over not for their physical forms alone, but for their ability to affect people (Mitchell 2005). For example, what one group sees as valuable timber stock, another may see as pristine old growth wilderness. Each of these meanings have important consequences for how the land will be used and who will get to use it (Castree 2005, Willems-Braun 1997). From this perspective, landscape is a terrain of contested meanings. Similarly, the landscape of nature in Montana is a terrain of contested meanings.

The definition of nature used here is of the non-human environment such as rivers, trees, and mountains. Nature is also regarded as a social construction formed through discourse. It may be thought of as a socially mediated knowledge of the environment (Castree 2005, Castree and Braun 1998). Thus, nature is a term or idea that is used to both describe and construct the non-human world in ways that render it "natural," or "unnatural."

Wilderness too, is an idea. Though closely related to nature, wilderness can be distinguished from nature in important ways. Tuan (1974) describes wilderness in two ways. First, to describe not just natural landscapes, but raw nature, or, the antithesis of human dominated landscapes such as cities. Second, as a "state of mind." Similarly, William Cronon (1996a, 1996b) speaks of wilderness as a symbolic idea that is much more culturally infused than many can willing admit, a place where human experiences and emotions are often labeled "wilderness experiences." These experiences and emotions transform the non-human world into what we call "nature" and "wilderness." The concept topophilia is used here to refer to these cultural bonds with nature.

Previous Studies

The events surrounding wolf recovery and reintroduction have attracted much publicity and academic attention resulting in more than three decades of coverage and research. Human understandings of wolf recovery and management have been placed under the analytical lenses of many researchers and disciplines employing various methods ranging from strict statistical models to more conceptual and theoretically driven explanations. In this section I will consider one of the more prominent approaches to studying human perceptions wolves followed by a brief discussion of another approach that is more germane to this thesis.

An Attitude Approach

The term *attitude* is one of the oldest and obscure concepts in the social sciences, encompassing sometimes totally disparate research (Potter and Wetherell 1987). However, one of the more dominant views of an attitude refers to the position (favorable or unfavorable) that an individual expresses toward some object, subject, or other phenomena (Lutz 1990; Potter and Wetherell 1987). In other words, an attitude refers to an individual's tendency to express a particular evaluative stance toward some phenomenon.

Though different models of attitude theory vary in their conceptualization and labeling, in general, attitude models consist of the same basic components: cognition, affect, and connotation. Lutz (1990) describes these three different components: the cognitive component specifies an individual's beliefs about the particular phenomenon of interest (e.g., I believe wolves are critical to healthy ecosystems), affect refers to emotional responses such as feelings and moods toward the phenomenon (e.g., I value healthy ecosystems), and connotation includes the intended and actual behaviors regarding the phenomenon (e.g., I support wolf recovery). While there are models that consider attitudes in different ways, the commonly accepted view

describes an attitude as purely affective and the remaining components as inputs and outputs. Here, each of these components is conceived of as a causal chain in which cognitive factors are viewed as an antecedent to the attitude and connotations as an outcome (Lutz 1990). While there are different ideas about what an attitude is and how to model it, the dominant approach regards an attitude purely as a variable of emotion that is influenced by beliefs and knowledge which, in turn, determine an individual's intentions and behaviors.

There are three key ideas about attitudes that are especially relevant to attitude research. First, attitudes represent a tendency to respond or behave in a particular manner: thus, if an individual's attitude can be assessed, so too can their behavior be predicted. Second, attitudes are not inherited, they are learned, and, as such, are adjustable. Third, attitudes are internal responses, not directly observable characteristics (Lutz 1990). Attitudes are viewed as precursors to behavior. If an individual expresses a positive attitude toward wolves it can be expected that they would support wolf recovery. Because attitudes are thought of as learned predispositions, it follows that attitudes can be changed. However, because attitudes are internal constructs, they must be studied with specialized tools such as surveys which can measure specific characteristics of the phenomenon of interest in an attempt to reveal an individual's attitude.

For attitude researchers, people's thoughts and actions are determined (at least in part) by attitudes about or toward some phenomenon (Phillips and Jørgensen 2002). The goal of attitude research, then, is to determine where respondents position this phenomenon with regard to some measure of it (Potter and Wetherell 1987). For example, where an individual positions "wolf recovery" according to its "acceptability." The value of attitude research lies in the potential to improve educational outreach and change attitudes and behaviors (Phillips and Jørgensen 2002). Attitude surveys are used widely by natural resource managers who must navigate a diverse

myriad of groups and individuals to help them gain a better understanding of public opinions and serve as a basis for decision making (Bright and Manfredo 1996).

Attitudes are commonly measured using surveys that sample a portion of the population of interest. These attitude surveys typically employ quantitative and empirical methods relying heavily upon Likert scale models (or a similar method of scaled response) and statistical analyses. This method of research typically presents a participant with a questionnaire, often consisting of hypothetical statements, questions, or situations wherein the participant is instructed to indicate whether or not they agree or disagree (sometimes on a scale from 1 to 5) with the selected statement. The results are then used to model or extrapolate general attitudes toward wolves for particular social groups in a specified region. This approach has received attention from researchers in various fields – from acclaimed natural scientists attempting to understand how the public perceives wolf recovery to managers and wildlife agencies trying to predict how the public will react to wolf policy and management. Several examples of studies in which researchers have used attitude surveys to study human perceptions of wolves and wolf recovery and management are described below.

As wolf populations in Minnesota began to increase in the late 20th Century and into the early 21st, so too did conflicts between wolves and human interests (e.g., livestock). Chavez, Gese, and Krannich (2005) used a structured survey of 26 statements and a 5-point Likert scale to compare Minnesota rural landowners' attitudes toward wolves living within wolf range (who reported more negative experiences with wolf depredation) versus those outside wolf range (who presumably have had no experiences with wolf depredation). Both groups expressed negative attitudes toward wolves even with the added stipulation "if wolves do not disturb livestock often." The authors speculate that the lack of difference between the groups indicates that these

attitudes are fueled by strong cultural biases which persist regardless of the risk that wolves pose to livestock. Referring to the work of Kellert (1986) and Tremblay and Dunlap (1978), the authors speculate that wolves may not provide any value to rural residents or rural lifestyle as many rural residents express utilitarian attitudes toward the environment. Additionally, rural communities have long depicted wolves negatively due to conflicts between wolves and livestock as well as folklore arising from European immigrant roots (Fogleman 1989, Fritts et al. 2003). The authors suggest that further research needs to investigate how cultural and social biases shape perceptions and attitudes toward wolves, particularly in rural regions.

Bruskotter, Schmidt, Teel (2007) surveyed attitudes among urban residents, rural residents, and big game hunters in Utah to determine if and how public attitudes toward wolves had changed since reintroduction into Yellowstone and Idaho. Although there are currently no established wolf packs in Utah, there is sufficient habitat to support wolf populations (Switalski et al. 2002). Indeed, a wolf dispersing from YNP was caught in northern Utah in 2002 (Bruskotter, Schmidt, Teel 2007). However, restoration of wolf populations is largely influenced by human tolerance (Carroll et al. 2002) highlighting the importance of understanding public attitudes. The researchers in this study used an 11-point scale ranging from “strongly disagree” to “strongly agree” and compared their findings with a previous study (see La Vine 1995). They found that attitudes toward wolves did not change considerably between 1994 and 2003. While rural residents and big game hunters expressed less positive attitudes than urban residents and those who where not big game hunters, overall, the majority of respondents expressed positive attitudes toward wolves.

Following the first sighting of a wolf in Utah since the reintroduction, the Utah Division of Wildlife Resources (UDWR)[15] was tasked with developing a wolf management plan. Bruskotter, Vaske, and Schmidt (2009) conducted a study to assess the attitudes of residents in Utah toward lethal wolf control, in part, to help inform Utah's wolf management plan. They mailed surveys to Utah residents and measured responses on an 11-point scale ranging from "strongly disagree" to "strongly agree." Overall, non-lethal forms of control were more acceptable than lethal. However, a higher level of lethal control was more acceptable among respondents who identified with agricultural and hunting interests, and a lower acceptability among those who identified as environmentalists and wildlife advocates.

As wolf populations increase and the discussion over proper management conservation techniques turns toward lethal control, there is a growing interest over whether the same hunter ethics that have been used to conserve game animals such as deer and elk can apply to carnivore species such as wolves (Treves and Martin 2011). Treves and Martin (2011) used a 5-point Likert scale survey to measure hunter attitudes and the potential for hunter stewardship of wolves as game animals in Wisconsin and the U.S. Northern Rocky Mountains (Idaho, Montana, and Wyoming). They found no evidence that hunters would be stewards of wolves once a wolf harvest was permitted citing that hunters expressed no support for wolf conservation. They concluded that hunter attitudes may change with time but that management agencies cannot assume that hunters will conserve wolves as they have with other game species such as deer and elk.

In an effort to better understand how changes in individuals' attitudes, beliefs, and emotions toward wolves predicts their behavior, Treves, Naughton-Treves, and Shelley (2013)

[15] The UDWR was tasked with developing a wolf management plan by the Utah legislature (Bruskotter, Vaske, and Schmidt 2009).

conducted a longitudinal analysis of wolf attitudes of Wisconsin residents using a survey questionnaire and measured responses on a 5-point scale ranging from "strongly disagree" to "strongly agree." They found that Wisconsin residents living in wolf range expressed less tolerance of wolves over a period of shifting policy and increasing wolf presence.[16] Respondents became increasingly fearful, sensed more competition for game animals, became more inclined to poach wolves, and were more approving of lethal wolf control and wolf harvests.

Beyond the studies presented here, attitude surveys have also been used to reveal that members of the Ojibwe Tribe in Wisconsin hold more positive attitudes toward wolves than non-tribal members (Shelley, Treves, and Naughton 2011); and that Wisconsin residents generally support wolf damage compensation programs, except in the cases of lost hunting dogs on public lands (Treves et al. 2009), among others outside of the U.S. (see Karlsson & Sjöström 2007). The attitude approach provides insight into attitudes that individuals express about wolves and wolf management. Some researchers employing this approach attempt to explain what influences attitudes such as cognitive factors, emotions, political affiliations, geographic location, group associations, and personal experiences among others. Using attitude surveys, researchers can statistically differentiate between the attitudes expressed by individuals from different social groups, and what might influence their attitudes. Proponents of this approach claim that this knowledge could be used to predict and/or change public attitudes, intentions, and behaviors in ways that are valuable to natural resource professionals.

A Social Constructionist Approach

While attitude research has been the dominant approach to understanding human perceptions of wolves, there is another approach that is more suited to the focus of this study. Here, the social constructionist perspective used by previous researchers to study human

[16] 2001 – 2009

perspectives of wolves and wolf recovery and management is described. A social constructionist perspective posits that our knowledge of reality is not a direct reflection of a reality that is "out there," but is instead a product of cultural interpretations which are created and maintained through social interaction in everyday life (Phillips and Jørgensen 2002).

Greider and Garkovich (1994) state that landscapes are symbolic environments that reflect our own definitions of ourselves, created by us through the act of bestowing meaning upon the physical environment in an effort to define the appropriate relationships among ourselves and with the physical environment. They claim that meaning is not innate in nature; meanings are produced through social processes that define what our relationship with nature should be. The significance of reality is not taken for granted; it is thought of as a socially constructed process that signifies how we relate to our world. These social processes generally manifest in the form of policy making, planning processes, rules and regulations, public meetings, in newspapers, and general conversation, among others.

Wilson (1997) uses a social constructionist approach to argue that the struggle over wolf reintroduction was a struggle over symbolic meanings between opposing social groups. His research is largely composed of media accounts and previously published literature; a synthesis of past work arranged such that a coherent story begins to unfold. While Wilson's work is a critical advancement toward viewing the debate over wolves as an issue of symbolism and meanings, he largely frames the issue as occurring between two primary forces:

> Wolves, as elements of landscape, are powerful symbols that reflect the essence of what it means to be a member of a particular social movement. Viewed in this light, the controversy over wolf reintroductions is seen as a much larger struggle between environmentalists and wise users. At the root of the disagreement over wolves lie three social issues: (1) differential access to social power, (2) conflicting ideas about private property, and (3) fundamentally divergent beliefs about humankind's proper relationship with the natural environment (459).

> Nonetheless, it must be remembered that few, if any, environmental activists will suffer financial losses by wolf-related damage in the GYE [Greater Yellowstone Ecosystem] while many will accrue benefits through existence value. For environmentalists, the return of the wolf to Yellowstone is a low-risk, high-gain event, costing virtually nothing while imposing a unique vision of landscape on the GYE community (464).

Wilson claims that the struggle over wolves is at root not a natural or physical dilemma (though it does manifest physically), but a contest of symbols and values that are politically, economically, emotionally, and physically played out upon the landscape. Wilson claims that it is a conflict over symbology between two opposing groups, the "environmentalists" and the "wise users," driven by differential access to social power, conflicting ideas about private property, and divergent beliefs about humankind's proper relationship with the natural environment. Wolves, he claims, are the "symbolic nexus" where these three factors meet head-on in the battleground that is the Greater Yellowstone Ecosystem (GYE). However, this characterization could be seen as overly simplistic because it ignores the fact that not all environmentalists or wolf enthusiasts supported the wolf reintroduction. Some opposed the reintroduction on the basis that the lesser level of protection (section 10(j) experimental, non-essential status) was improper and illegal. Others opposed the reintroduction on the grounds that the reintroduced wolves would threaten the legal protection of the handful of wolves that already roamed the GYE which were thus entitled to the full protection afforded by the ESA (Bangs et al. 2009; Nie 2003; USFWS 1987). Scarce (1998) draws attention to this issue as well stating that the characterization between the extractive-versus-preservationist camps by the media during the time of reintroduction efforts was rather rudimentary.

Scarce (1998) picks up where Wilson leaves off, going beyond the media and published materials to engage directly with the residents in the GYE. He conducted 40 interviews with various residents living within the GYE that included biologists, teachers, business owners,

artists, outdoor outfitters, ranchers, and environmental activists among others. He used grounded theory which requires the researcher to build theory from data rather than testing existing theories. In this way, Scarce's approach is vastly different from many other wolf studies in that he did not begin from existing theories and instead used interviews to iteratively develop results. Using these methods, Scarce identified and analyzed multiple social constructions of wolves among residents and how they conflicted with each other. Scarce observed that local concerns went much deeper than economics. For example, some expressed concern that wolves would have the potential to destroy their lifestyle, their ability to make a living, the labor and expertise that their livestock represent, and that no monetary compensation could replace these things. In some cases, respondents viewed wolves as ecologically necessary, an example of good governmental policy correcting a mistake, and a species whose behavior continues to be debated scientifically. Others viewed wolves as, immoral, non-native, illegal, and the physical manifestation of federal authority in straight defiance of local opinions. Scarce claims that it is these conflicting constructions of wolves that continues to fuel the debate and that until Yellowstone authorities understand and recognize these other constructions, the tension over wolves will persist. Scarce's research suggests that there are not just two constructions of wolves occurring as Wilson (1997) seemed to imply, but rather there are multiple constructions occurring.

A social constructionist approach examines how human perspectives of wolves are formed, maintained, and changed through symbols and meaning. Reality is not taken for granted; it is assumed that reality must be created and maintained through social interaction. According to Scarce (1998), a social constructionist regards meaning as a facsimile of reality. The meaning of something is the only relevant factor for understanding reality; or in his words, "what some

phenomenon means is what some phenomenon is" (28). The reality of a phenomenon is understood as necessarily subjective relative to the meaning bestowed upon it. Perspectives of wolves are not conceived of as correct or wrong, but rather as differential social preferences that interact, compete, vilify, and ennoble each other. Language and discourse are particularly central to this theory as they allow different meanings to spread, move, flow, change, respond, transform, reproduce, and be shared.

Attitudes versus Social Constructions

Attitude research investigates how people internally evaluate phenomena (the mental evaluative process that occurs within oneself). However, the trouble with this is that attitudes are not an obvious trait. Therefore, specialized surveys are used to measure select variables in an effort to replicate this evaluative process in a recordable setting. Indeed, one of the principal assumptions about attitude theory is that humans process and analyze the world in a rational manner, and as such, can be reduced to a measurable variables (Patterson & Williams 2005). The value of this model lies in its potential to predict and possibly change attitudes (Phillips and Jørgensen 2002) (for example, see Bruskotter, Vaske, & Schmidt 2009; Naughton-Treves, Grossberg, & Treves; 2003; Treves et al. 2009; Treves & Martin 2011; Treves, Naughton-Treves, & Shelly 2013). However, attitude research can be seen as suffering from three major problems. First, attitude theory does not account for social interaction. Second, attitude research assumes that attitudes can be measured consistently regardless of context or environment. Third, successfully predicting and changing attitudes are next to impossible. This is supported by claims from sources which are elaborated upon below.

Social constructionists claim that attitude theory views attitudes as individual entities without any regard for the role that social interaction plays in what people think and how they

behave. In doing so, they criticize the main hypothesis of attitude research, that attitudes should be measured within individual mental states or processes. In contrast, social constructionists seek to explain what people say, think and do from the perspective that human understandings of the world are constructed through social interaction (Phillips and Jørgensen 2002). Additionally, attitude researchers assume that when they measure an attitude they are observing a valid and consistent response. This is somewhat problematic as it is not entirely clear whether the respondent is expressing an internal position regardless of the context in which they are responding or if they would respond differently provided a different setting or scale of measure (Potter and Wetherell 1987). In other words, it is unclear whether the surveys are measuring an attitude that is reliably consistent or if other factors may interfere, such as the physical setting, relationship with the person conducting the survey, or the survey instruments themselves, among other aspects. However, attitude research continues to be employed to investigate animal-human interactions.

One of the main purposes of attitude research is to predict attitudes and behavior, sometimes in an effort to increase tolerance for animals that elicit controversy, such as wolves. However, attempts to do so would likely have little success as Bright and Manfredo (1996) found that attitudes toward wolf reintroduction were largely shaped by the values and meanings that people assign to wolves rather than their objective knowledge about wolves. Unfortunately, it is much more difficult to change values and meanings than it is to inform someone about seemingly objective facts. This is supported by the findings of Bruskotter, Vaske, and Schmidt (2009) who found that cognitive factors, such as beliefs, accounted for more influence in respondents' acceptability of lethal control than external factors. Lynn (2010) reasons that attempts to predict or model wolf attitudes fail because human sagacity causes us to think and act

beyond the bounded conditions of which natural science operates; humans cannot be accurately modeled or predicted precisely because we are aware of ourselves, the world around us, and our place in it (also see Bernstein 1991, Rorty 1979). Even if we did have the ability to accurately model and predict attitudes toward wolves, there are doubts about whether or not attitudes can be successfully modified using these models. This phenomenon was observed by Meadow et al. (2005) who found that persuasive arguments were largely ineffective at changing attitudes toward wolf restoration and sometimes led to a "backfire effect" wherein existing attitudes became further polarized. This inability to change attitudes has also been observed outside of natural resource management, for example, among parents who used day care (Bastardi, Uhlmann, & Ross 2011), how partisan motivations influence knowledge about weapons of mass destruction in Iraq (Gaines et al. 2007), and Nyhan and Reifler (2010) who observed the same "backfire effect" in a study about fake news, misperceptions, and the effectiveness of corrective statements.

Perhaps the chief difference between attitudes and social constructions is that attitude research emphasizes human perception and behavior as a rational end goal while social constructionist approaches emphasize "meaning making." Patterson and Williams (2005) refer to these differences as "molecular" vs. "molar," stating that approaches which favor a molar focus tend to regard humans as active creators of meaning while a molecular focus regards humans as processors of information that is already "out there." In other words, attitude research assumes an individual cognitive version of reality in which humans simply analyze and evaluate pre-existing information while social constructionist approaches assume a social reality which must be constructed through social actors (also see Saegert & Winkel 1990).

An attitudinal study is an excellent approach for researchers seeking to model and predict wolf attitudes. A social constructionist approach is a better approach for researchers seeking to understand how people's perceptions of wolves are created and what holds them in place. The former produces knowledge that is generally used in attempts to predict or change attitudes as though human emotions are merely a variable to be controlled for. The latter produces knowledge that could help managers navigate the issue with a nuanced understanding and grace wherein those in a position of power are not trying to control human emotions, but are working *with* those emotions because reason is only effectual in so far as it suits our passions. Indeed, Patterson, Montag, and Williams (2003) state that social science cannot always provide definitive answers for how to resolve complex social problems the way engineers can provide the answers to how to get planes off the ground; rather, it should be used to map out the dimensions of a problem, such as how stakeholders frame and communicate an issue. A richer understanding of the problem will identify both differences as well as common ground providing opportunities for productive dialog. This would seem particularly valuable as numerous scholars (Bastardi, Uhlmann, and Ross 2011; Bernstein 1991; Bright and Manfredo 1996; Bruskotter, Vaske, Schmidt 2009; Gaines et al. 2007; Lynn 2010; Meadow et al. 2005; Nyhan and Reifler 2010; Rorty 1979) have demonstrated and maintained that predicting and changing attitudes is likely to be met with significant challenges.

Copious amounts of research have been conducted on wolves, including but not limited to topics such as: their ecological role (Berger, Gese, and Berger 2008; Beschta and Ripple 2012; Chavez and Gese 2006; Evans et al. 2006; Mech 1970; Mech and Boitani 2003; Ripple and Beschta 2007), folklore (Grambo 2008; Knight 1997), wolf policy (Nie 2001; 2002, 2003), economic aspects of wolf-human interactions (Treves et al. 2009), public attitudes toward wolves

(Bruskotter, Vaske, and Schmidt 2009; Naughton-Treves, Grossberg, and Treves 2003; Shelley, Treves, and Naughton 2011; Tucker and Pletscher 1989), personal identity stemming from wolf-human relations (Emel 1998), and social constructions of wolves (Scarce 1998; Wilson 1997). On the surface, it would appear that we have learned as much as we can from studies of wolves. However, the topic of wolves continues to be a much heated debate as evidenced by continued disagreement and litigation. It would seem that the debate over wolves is far from resolved. Problems of how to manage wolves continue to persist and are always changing necessitating the need for continued research and creative approaches.

Chapter Three: Methodology

After presenting a brief overview of the history of wolves and wolf management, the geographical foundations of this research, and a summary of previous research, I now turn toward the methodological thrust of this study. I will first provide a brief overview of discourse analysis, followed by a description of the study area and scope, data collection, and finish with a discussion of data analysis procedures and data sampling.

Discourse Analysis

This study will approach human perspectives of wolves and wolf trapping from a social constructionist perspective, utilizing discourse analytic methods. Discourse analysis is the study of how socially accepted knowledge or truth is derived from discourse and its effects on the world. Among other purposes, discourse analysis has been used to analyze social identities, evaluate arguments and opinions, and illustrate the subjugation of populations (Phillips and Jørgensen 2002; Waitt 2005; Wetherell, Taylor, and Yates 2001).

Discourse can be understood as interpersonal communication such as writing, talking, or acting, among other forms (Potter and Wetherell 1987). In a more detailed sense, discourse is a group of interconnected texts or utterances that form and regulate an organized set of thoughts or beliefs and render the world comprehensible and meaningful (Foucault 1972; Phillips and Hardy 2002); it is a way of thinking and communicating knowledge about the world (Phillips and Jørgensen 2002). Discourse defines boundaries within which people think and behave, informs their understandings of the world, and sets limits upon what is considered normal and acceptable (Phillips and Jørgensen 2002; Waitt 2005; Wetherell, Taylor, and Yates 2001). From this perspective, discourse is active communication which has effects. Instead of being viewed as simply random utterances, discourse is a collection of related utterances that assigns meaning to

the world and, in the process, constructs a social reality. Discourse analysis, then, investigates these constructive processes and their effects.

The term discourse analysis does not describe a single research approach, but rather a group of approaches that share similar assumptions about the relationship between discourse and reality. As a result, there is no single commonly agreed upon strategy for indentifying or analyzing discourse (Phillips and Hardy 2002). Indeed, there are a variety of studies labeled discourse analysis stemming from different disciplines using different terminologies and theoretical perspectives which furthers the general confusion about what exactly discourse analysis is and what it entails (Potter and Wetherell 1987). There are, however, some approaches which have gained considerable academic attention and thus provide guidance through the myriad examples of literature and research that have been categorized as discourse analysis.

Discourse analysis has been used by geographers for a vast array of purposes. Neumann (1995) used the concept of discourse to argue that the creation of a national park in Africa was legitimized through the use of an "Edenic" ideal deployed by national park advocates, many of which were from Europe. Martin (2003) analyzed how neighborhood organizations describe their goals and agendas and the role of discourse in motivating and uniting residents around neighborhood-oriented causes. Martin describes this as the analysis of how a place or "place-framing" informs activism. Wright (2004) used discourse analysis from a Marxist perspective with a feminist critique to analyze the use of discourse by political and corporate elites to limit the public presence of women sex workers in Ciudad Juárez. Hardwick and Mansfield (2009) used discourse analysis to analyze the construction of borderland regions and the role of identification and disidentification in the construction of personal identities.

As exemplified above, the variety of discourse analyses may range from any and all research concerned with language to very specific research about the effects of language, such as how a particular group of people are portrayed. There are far too many approaches to discourse analysis to cover all of them within the scope of this thesis. However, it is helpful to provide a brief catalog of some of these approaches to provide the reader with a general impression of the variety of approaches to discourse analysis and form a basis for the approach taken here.

Potter and Wetherell (1987) describe a breadth of discursive analytic research; some discourse analysts have investigated the connections between discourse and cognition, such as how texts are understood, organized, memorized, and processed (e.g., Bower and Cirilo 1985, Frederickson 1986), while others have examined sociolinguistics, such as how different social groups use and understand language (e.g., Labov 1972; Milroy 1980). Still, other discursive theorists have attempted to categorize different research into well defined approaches, such as: Phillips and Hardy's (2002) descriptions of interpretive structuralism, critical linguistic analysis, and social linguistic analysis; or Phillips and Jørgensen's (2002) discussions of critical discourse analysis, and discursive psychology. Each of these approaches emphasize different objectives and foci in discourse analysis. For example, some may consider the role discourses play in constructing social contexts and identities (interpretive structuralism), others may examine how discourse is used to create and maintain inequitable power relations (critical discourse analysis), or investigate how discourses are used to create and maintain understandings of the world (discursive psychology). In what follows, I provide a brief overview of the approach taken in this research, discursive psychology. More details of this approach will be covered further within this chapter. All following discussion of "discourse analysis" refers to this specific approach.

Despite the name, discursive psychology is not concerned with internal psychological states, but rather how people use discourse to construct interpretations of the world and to analyze the consequences of these interpretations (Phillips and Jørgensen 2002). From a discursive psychological perspective, discourse does not transparently describe a reality that is "out there" external to society, rather discourse is used by individuals to create a reality that looks and feels real. Discourse is fundamentally ingrained into our experiences of the world in ways that do not simply reflect those experiences, but constitute them (Phillips and Jørgensen 2002; Potter and Wetherell 1987). In some ways, discursive psychology can be considered an alternative to attitude research which seeks to study human perspectives as personal phenomena, whereas discourse psychology regards them as social phenomena.

Discursive psychology tends to focus on specific occurrences of people using discourse in daily life than more abstract discourse analyses which conceive of discourse as discarnate phenomena (e.g., Laclau and Mouffe's discourse theory). Unlike critical discourse analysis, which emphasizes the linguistic organization of discourse, discursive psychology is concerned with rhetorical organization, in the sense that language is used for specific reasons in particular settings (Phillips and Jørgensen 2002). For example, how individuals may try to convince other readers of a newspaper that wolves need to be managed by trapping.

At this point it may seem that discourse analysis is somewhat disorganized, inconsistent, and perhaps even frivolous due to the sheer variety of approaches. However, nothing could be further from the truth. Each of these approaches share a fundamental assumption: they assume an active and constructive relationship between discourse and the world, and that discourses do not simply reflect reality but instead *construct* reality. It is this critical aspect that differentiates discourse analysis from all other qualitative methodologies. Whereas most other qualitative

analyses assume a social reality exists and attempt to reveal and interpret reality as it is, discourse analysis assumes a constructive relationship between discourse and reality and seeks to investigate the processes through which reality is produced (Phillips and Hardy 2002). In this manner, both theory and method are critical aspects to discourse analysis. Discourse analysis is not a just a method of inquiry, it is also a theoretical perspective about the world, providing techniques for investigation and theoretical assumptions about the relationship between discourse and reality.

Ultimately, the point of discourse analysis is not to argue that there does not exist a material reality outside of discourse, or that discourses do not have material impacts. The point of investigation is that discourses give meaning to material reality and that too often we confuse this discursive reality with the material reality it purports to represent (Phillips and Jørgensen 2002). In other words, while there is a reality that exists outside of society, we can only ever access reality through cultural filters, we cannot access it in the raw. Discourse analysis is one way of investigating this phenomenon.

Study Area

This study is set within the communities of Missoula and Hamilton in western Montana. With an estimated population of 67,710 (U.S. Census Bureau 2013a), Missoula is the seat of Missoula County (110,243 population) (U.S. Census Bureau 2013b), and acts as a major hub providing many regional services and is also home to the University of Montana. Hamilton, a city of approximately 4,435 residents (U.S. Census Bureau 2013c), 60 miles south of Missoula in the Bitterroot Valley relies on a mix of agricultural activities and tourism which serves as the county seat of Ravalli County (40,423 population) (U.S. Census Bureau 2013d). While both of these sites are located deep within wolf territory, Missoula is a much more urban setting while

Hamilton is relatively much more rural. While this is not a comparative study these contrasting sites were chosen in an effort to encapsulate a wide range of voices that exist in western Montana. These municipalities serve as suitable sites for this research because they are located within the NRM wolf area, established wolf packs are known to inhabit the surrounding areas (Figure 3), wolves in Montana have been delisted from ESA protection and entrusted to state management (MFWP), and the MFWP has begun to utilize annual public trapping seasons as a method to control wolves and minimize perceived negative impacts attributed to growing wolf populations.

The time-frame for this research ranges from the day that the harvest regulations for the first trapping season in Montana were released for public comment (May 9, 2012) to the last day of the 2014 trapping season (February 28, 2014). This period encompasses the first two public wolf trapping seasons held in Montana, providing ample time for individuals to contribute to a discourse regarding wolves and wolf trapping while also providing the primary investigator with enough time to collect and analyze the data.

Sources of Data

This study focuses on discourse originating from the two local daily newspapers in each study site, the *Missoulian* and the *Ravalli Republic*. Discourse about wolves and wolf trapping is readily accessible in these newspapers for a minimal monthly subscription payment. For this study, only discourse that was contributed by readers such as letters to the editor (LTEs), guest columns, and online comments were collected. Newspapers serve as an appropriate source because they are a common forum for public discussion (Bengston et al. 2009; Habermas 1974) and are generally representative of local concerns (Bengston 1994; Kellert 1985). Further,

"naturally occurring" texts,[17] those which are not prompted by the investigator are generally considered better data sources because they are real examples of discourse in action (Phillips and Hardy 2002).

To collect data, I logged into each newspaper's website with my subscribed account and searched for content related to "wolf trapping" between May 9, 2012 and February 28, 2014 using the search tool. This search tool accessed main articles and contributed letters, and photographs; essentially, it searches everything except online comments. Online comments can only be collected from one of these main results as the comments are only posted in response to these main articles, letters, photographs, etc. In an effort to navigate the hundreds of results and maintain the focus of this study on public discourse, not news reports, I collected all main content contributed from readers (e.g., guest columns and letters to the editor) and associated online comments; only those comments that directly responded to a reader-contributed piece were collected. This protocol necessarily excluded online comments that pertained directly to news sources, focusing instead on discourse among readers and reader-contributors in an effort to reduce the bias from newspaper editors as much as possible. Data was collected from the newspaper websites, copied into an Excel spreadsheet, geo-coded and eventually imported into QSR NVivo 10. NVivo is a software program that provides researchers with a virtual workspace for using qualitative information, such as interviews, surveys, articles, and notes to classify, sort and arrange information, examine relationships in this information. It is designed to facilitate broad techniques used in qualitative research for organizing, analyzing, and sharing data, thus NVivo is a useful tool regardless of methodology (NVivo 10 getting started).

As out-of-state individuals often contribute to the local discourse via public comments, letters to the editor, among others, data collection was not restricted to local contributors only;

[17] Recall from the introduction that "text" refers to recorded communication such as written letters and comments.

collection included all discourse regardless of location. This was partially because online comments are not geo-coded and thus is not possible to distinguish between local and non-local contributors. More importantly, the discourse regarding wolf recovery and management has consistently been a national interest since their listing on the ESA in the early 1970s, and wolf recovery and management is not strictly a local concern (for example, see Patterson, Montag, and Williams 2003).

While I originally intended to include another data source in this study, public comments received by the MFWP regarding wolf trapping, I have chosen to focus only on newspapers for a number of reasons. First, the data provided by the MFWP are not organized in a manner that is conducive to identifying individual comments. For example, I came across many letters and comments which were signed by numerous people or simply by organizations. Second, a significant portion of these comments were not readily legible. Many were hand-written letters or poorly scanned images which are not readily transferable to text editing software or text processors such as Word or NVivo, and difficult to interpret in general. Third, the sheer amount of comments (in excess of 5,000) would have severely added to the amount of time, resources, and work required for this study, well beyond the demands and scope of a common thesis project. Fourth, the MFWP comments were generally isolated instances of text which often had little to no reference to each other. For example, some were pre-prepared letters from organizations that were simply signed by an individual. In other words, they did not constitute a dialogue, but were instead unidirectional contributions of opinion. In contrast, newspaper texts were often related to each other in that letters to the editors may have been responding to previous letters and comments, and would respond directly to these letters and to other related comments within the same thread. Indeed, a study by Manosevitch and Walker (2009) found that

online reader comment forums have a strong potential to act as a space for public deliberation. This indicates that newspapers contain more cohesive forms of discourse, in terms of interrelated texts which interact with other texts, a notion that is strongly consistent with dominant understandings of discourse discussed prior in this thesis.

Coding and Data Analysis

During the process of data collection it became apparent that some contributors were posting the same, or very similar, comments multiple times. As this research is primarily concerned with the discourse of the entire public, not just the loudest and most outspoken, it was deemed necessary to control for individuals who may over saturate the data with their repeated comments. Examples of extra comments are presented below that exemplify this phenomenon.

> HUNTING is CONSERVATION. Without hunting there would be NO wildlife. Except a few in the parks and zoo's [sic]. – RPT (6/25/2013)

> HUNTING IS CONSERVATION Without modern day hunting and management there would be no wildlife. Anyone who thinks hunting is just about killing is sadly mistaken. – RPT (6/28/2013)

> HUNTING is CONSERVATION. Without modern day management and hunting there would be NO wildlife. – RPT (9/12/2013)

> HUNTING is CONSERVATION. Without modern day management and hunting there would be NO wildlife. – RPT (9/15/2013)

> HUNTING is CONSERVATION. Without modern day management and hunting there would be NO wildlife. – RPT (1/13/2014)

> They are needed. Wolves have taken over the role of wildlife manager when it comes to the deer and elk herds. – richard11 (8/8/2012)

> The wolf is the best tool to manage and keep the elk and deer herds in check. The wolves are here to stay and elk and deer is going to be on their food menu YEAR ROUND and for many years to come. – richard11 (1/19/2013)

> Wolves harvest elk and deer. This is called management and there is no better wildlife manager than the wolf. The wolves will continue harvesting and eating as many deer and elk as they want. – richard11 (2/11/2013)

> Another myth is the elk depredation myth. Elk populations have grown tremendously since wolf reintroduction, from around 89,000 before to 141,000 now per RMEF and elk have increased in WY and ID and even in the Bitterroots where we hear a lot of complaints by sportsmen. There are now and always have been too few wolves in Yellowstone to have had a negative effect there. It has been sportsmen over-hunting, weather, forage, and natural fluctuations in elk populations from an all time unsustainable high. Elk number there are now at historical levels and the calf-cow ratio has stabilized. – Gadfly (7/16/2013)

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For this reason, the individual contributor was chosen as the appropriate unit of analysis. While these repeat contributors could potential be seen as having more concern and thus perhaps should be given more weight, this perceived concern could be artificially boosted simply by submitting one's comments in multiple posts rather than as a single post. In other words, if an individual text was used as the unit of analysis, some individuals would be granted significantly more weight simply because they contributed more frequently resulting in an analysis of quantity rather than quality. The individual contributor was chosen as an appropriate unit of analysis to control for this overabundance of extra comments with the assumption that the individual's discourse would remain fairly consistent for study purposes. All of the separate texts from each individual were taken as a single text and coded a maximum of once into each theme.

There are three main stages to this discourse analysis: classifying themes, identifying social constructions within these themes, and determining the topophilic implications of these constructions. Coding (stage one) commenced after all data were collected and imported into

NVivo. Coding was conducted using NVivo software, specifically the node tool, to assign themes to pieces of text. I followed Potter and Wetherell's (1987) guidelines to coding and analyzing discourse data as described below. Coding began with reading and rereading the texts to identify common themes. At this point, broad-level and overlapping categories were created so as not to set limits or draw hard boundaries which might have otherwise excluded valuable data. Therefore, all borderline cases that might have only have seemed loosely connected were initially included. The ultimate goal of coding was to condense the large and unwieldy body of texts into manageable portions which were then subjected to a more intensive analytical process. In this sense, discourse analysis is very different from other qualitative approaches such as content analysis (where the purpose is to categorize and investigate frequencies of occurrence) in which coding pragmatically serves as a technique of analysis (Potter and Wetherell 1987). As Potter and Wetherell do not provide a detailed coding protocol only a general guideline, I followed Strauss and Corbin's (1998) procedure (described below) because it is a useful method for collecting rich themes and has been used successfully by researchers to investigate qualitative data related to natural resource management (see Bengston 2004).

Coding was a highly iterative process involving two primary steps repeated three times, open coding and axial coding. I began with open coding which involved reading through the entire dataset line by line, selecting portions of the text, and assigning themes. The goal of open coding was to identify and develop an outline of recurring themes within the dataset. Once I had open coded through the entire dataset, I began the process of axial coding. Axial coding is a form of cross-coding wherein connections were made between existing codes and referenced back to the original texts. Through this process some codes were rejected and new concepts or themes would arise necessitating another round of open coding throughout the entire dataset to ensure

uniform coverage of the themes across the texts. While I conducted this process three times, this is by no means a strict formula for success; it was simply the case that no new themes or concepts were identified after three iterations. Coding involved much time, reading, and note taking to keep track of different concepts throughout the process. Once coding was complete I moved into the analytical phase.

Continuing with the analytical strategies described by Potter and Wetherell (1987), the analysis involved two primary activities: searching for patterns across themes (stage two) and determining the functions and consequences (stage three). Additionally, because Potter and Wetherell do not provide any guidance regarding what constitutes a "pattern," I utilized Berg's (2004) suggestions regarding identifying patterns in coded qualitative data. Briefly, he states that a useful principle is that one occurrence is an accident, two can be explained by chance, but at three, such occurrences begin to transcend mere coincide and could be considered a pattern. Thus, three occurrences of a similar statement or evaluative claim across different themes were regarded as a pattern. For example, some may make claims that wolves are ecologically valuable within the context of ungulates, some may discuss it within the context of wilderness, while others may discuss it within the context of scientific research. Together, these three occurrences make up a distinct pattern, a pattern which states that wolves are ecologically valuable.

Searching for patterns entailed looking for similarities and differences across the codes. This involved reading and rereading over all of the texts assigned to each code in an effort to delimit unique discourses. This was made possible by first identifying commonalities among the codes and then identifying places of convergence. Those that were most similar were grouped into the same social construction while those that were least similar were grouped into other social constructions; examples from the data were presented for rationale. For example, data

about “public image” and data about “tourism” could be potentially be grouped into the same social construction and specific examples from the data would be presented to support this claim. In this way, social constructions about wolves and wolf trapping were identified via similarity and differences among the coded content. Secondly, as analysis progressed, I sought to determine the function and consequences of these patterns by looking for evidence and examples within the data. For example, a discourse that socially constructs traps as a public safety hazard may function to create a landscape of fear in ways that change the behavior of the individuals, evidence of which can be found within the data.

Data Sample

A total of 1,250 texts (e.g., LTE, online comment) contributed by 358 different individuals were collected. Nine hundred eighty four (984) of these texts appeared in the Missoulian contributed by 242 individuals, 223 of these texts were in the Ravalli Republic from 87 different individuals, and 43 of these texts appeared in both the Missoulian and Ravalli Republic contributed by 29 separate individuals (Table 2).

Table 2. Collected data

	Comments	*Contributors*
Missoulian	984	242
Ravalli Republic	223	87
Both	43	29
Total	**1250**	**358**

Only a portion of these collected texts were actually coded into themes. Texts were not coded either because they did not relate to the research questions, could be clearly interpreted as a personal attack or threat toward another contributor, or contained vulgar or abusive language.

To determine what this constituted, I used the online conduct policy from each newspaper as a guideline. As both newspapers are owned by the same company, Lee Enterprises, they employ the same policy. Although this policy explicitly prohibits such language described above, there were still blatant examples of texts that disobeyed these rules of conduct. This may be attributed in part due to the fact that these policies are primarily enforced by reader complaints through a "report abuse" button. Indeed, both policies state that they (the newspaper) do not actively control online comments but may instead use third parties to monitor conduct. Presumably then, texts that violate these policies may continue to exist online if they are never reported. While an analysis that takes into account offensive discourse regarding such a contentious topic would likely be intriguing and contribute much to the project of wolf management, it is well beyond the scope of this thesis. Examples of unrelated and/or abusive texts which were collected but not coded are presented below.

> how many times are we going to read this copy and paste job?
>
> – MTNATIVE1000

> I live in the Bitterroot. I welcome letters and comments from anywhere. Montana is not a closed society.
>
> –Audrey

> As a veteran of the US military, I take offense to your hippie/pansy/wussified/tree-hugging/world-peace weed smoking/San Fransiscian spouting attempt to compare IED's to trapping. I am not a trapper; nor will I ever be one. However, I demand you apologize to the millions of service members that are out there putting their lives on the line so that you can spout your nonsense.
>
> – Barack Nobama

> ...you need to learn to spell. It is crock, not croak. The latter is something I wish trappers would do; put themselves into a trap and spring it. Now that would be instant karma!
>
> – Mexican Lobo

> haha you are a poor rural peasant and you know it. lets hope that wolves take out more of your useless livestock you welfare rancher. haha go get a real job you P O S rancher.
>
> – richard11

Only the texts that specifically addressed wolves and/or wolf trapping and were not abusive or cruel in nature were coded. Comments from 225 contributors were coded into themes: 160 from the Missoulian and 65 from the Ravalli Republic. The number of coded comments was not recorded because the unit of analysis was the individual contributor not each distinct comment.

Chapter Four: Results

Now that the background and methodological underpinnings of this research have been discussed, the results will now be presented beginning with the themes (stage one) that emerged from coding, the social constructions (stage two) that were identified within these themes are presented, and finally the topophilic implications (stage three) of these constructions are discussed using examples from the data. Within the context of these results, social construction refers to the main *objects* of analysis, wolves and wolf trapping. Topophilia refers to the main *subject* of analysis, people's bonds with nature within the context of wolves and wolf trapping. Results of stage two and three include quotes from contributors to facilitate the interpretation of these findings along with my own explanation of them. These quotes were chosen in an effort to illustrate the overall variation of how contributors discussed each phenomenon of interest. Bold highlighting has been added to portions of these quotes to emphasize important elements of the text that relate to the discussed findings. Additionally, the names of some contributors have been replaced with more anonymous indicators to protect their identity. While all data presented here is publicly available, this was done to ensure anonymity. Names which could be interpreted as similar to a real name were altered.

Stage One: Themes

Coding was organized into two categories reflecting two main topics of interest, wolves and wolf trapping. In some cases data were coded into both of the categories if there was clear overlap across themes. For example, much of the content coded to the "management tool" theme within the wolf trapping category was also coded to the "management & control" theme within the wolves category because contributors discuss wolf trapping within the context of wolf management. While this may seem somewhat tautological since wolf trapping is in fact is

occurring within the context of wolf management in Montana, only content that explicitly mentioned management were coded as such. Not all themes within the wolf trapping category were coded into the "management & control" theme within the wolves category. Data were coded into both the wolf trapping category and the wolves category if there was explicit overlap across themes regarding the content of the data, not just because they are similar topics.

These themes represent a common topic of discussion or verbatim use of the particular name assigned to the theme as used here, not necessarily value statements. For example, an individual commentator might have referred to deer and elk depredation by wolves and this would have been coded as "ungulates" and "destruction & depredation." Also, two different individuals could be discussing whether or not wolf trapping is humane or not. One believes it is inhumane, the other believes it to be humane. While these individuals express very different ideas about wolf trapping, they would both be coded into the "humanity" theme within the wolf trapping category. These themes were not designed to provide any evaluative stance toward the topic matter, but rather serve as building blocks to make the data more manageable and comprehensible in preparation for a more rigorous analytical process. In this sense then, these themes are a snapshot of the content of the data, the first stage of this discourses analysis.

Wolves

The themes within the wolves category are those which are related to the topic of wolves more generally. While there is some overlap with the wolf trapping category, these themes are representative of general discussion of wolves, not necessarily wolf trapping specifically. The top five major themes related to wolves are "ungulates," "ecological," "management & control," "livestock," and "population." The "ungulates" theme was further broken out into sub-themes consisting of "behavior," "destruction & depredation," "elk farm," "health," "managed by

wolves," "population," and "resource." The "ecological" theme was also broken into sub-themes which includes "cascade effects," "health & balance," "history," "negative effects of wolves," and "value of wolves." A detailed list of all themes is presented below (Table 3).

Table 3. Themes and sub-themes relating to wolves.

WOLVES				
	Missoulian		**Ravalli Republic**	
Theme	**No.**	**Percent (of 160)**	**No.**	**Percent (of 65)**
Ungulates	50	31.25	21	32.31
Destruction & Depredation	*31*	*19.38*	*10*	*15.38*
Population	*31*	*19.38*	*10*	*15.38*
Managed by Wolves	*11*	*6.88*	*4*	*6.15*
Behavior	*10*	*6.25*	*1*	*1.54*
Resource	*10*	*6.25*	*5*	*7.69*
Health	*9*	*5.63*	*1*	*1.54*
Elk Farm	*3*	*1.88*	*0*	*0.00*
Ecological	49	30.63	23	35.38
Negative Effects of Wolves	*21*	*13.13*	*7*	*10.77*
Health & Balance	*20*	*12.50*	*10*	*15.38*
Value of Wolves	*19*	*11.88*	*9*	*13.85*
Cascade Effects	*11*	*6.88*	*3*	*4.62*
History	*10*	*6.25*	*4*	*6.15*
Management & Control	43	26.88	23	35.38
Livestock	38	23.75	13	20.00
Population	35	21.88	14	21.54
Nativeness	31	19.38	6	9.23
Wilderness & Nature	29	18.13	11	16.92
Economics	26	16.25	12	18.46
Yellowstone	26	16.25	9	13.85
Endangeredness	25	15.63	9	13.85

Table 3. Themes and sub-themes relating to wolves, continued.

Impact on Hunting	25	15.63	12	18.46
Tourism	23	14.38	9	13.85
Killers	22	13.75	9	13.85
Scientific Evidence	22	13.75	8	12.31
Coexistence	15	9.38	4	6.15
Livelihood	14	8.75	2	3.08
Parasitic Pest	14	8.75	6	9.23
Safety	14	8.75	6	9.23
Human Emotions	12	7.50	5	7.69
Wolves as Property	12	7.50	5	7.69
Responsibility	11	6.88	5	7.69
Pity for Wolves	10	6.25	5	7.69
Apex Predator	8	5.00	5	7.69
National Treasure	8	5.00	2	3.08
Public Land	8	5.00	3	4.62
Ethics & Morals	6	3.75	3	4.62
Scientific Value	5	3.13	2	3.08
Intelligence	3	1.88	1	1.54
Religious	3	1.88	2	3.08
Cowardice	2	1.25	0	0.00
Illegal	1	0.63	0	0.00

Each theme name listed above is derived from the data either directly or indirectly. For example, the “ungulates” theme is a direct reference to the data within that code. Content assigned to that theme specifically referenced ungulates and/or species of ungulates. Conversely, some themes are not direct references to the data content, but rather, are representative of the content in general. For example, the “value of wolves” sub-theme is not a direct reference to anyone specifically stating those exact words, but rather, a reference to the content which

generally relates to the value of wolves.[18] In this way, the labels for these themes were derived. In some cases they are a direct verbatim reference to the theme content, in other cases they are merely representative, in all cases the theme label is an indicator of topical content.

Within these wolf themes, there are 31 main themes and 12 sub-themes. As coding progressed, sub-themes emerged as distinct topics within their main themes in ways that warranted further clarification due to the sheer amount of content encapsulated within these main themes. For example, there were three contributors who referenced the notion that the MFWP's approach to wolf management is biased toward prioritizing elk harvests for hunters which the commentators labeled as "elk farming." Such content is certainly relevant to the theme of "ungulates," and yet that label alone does not adequately capture the content thus necessitating a sub-theme. In this way, sub-themes emerged when content could not be adequately described under the main theme label alone. While many of these theme labels are self explanatory, there are a few that I will elaborate upon further due to their content not being easily labeled:

- The "resource" sub-theme under "ungulates" refers to all content which described ungulates as a natural resource primarily for human consumption as food. Any reference to ungulates as an economic resource was coded into the "economics" theme.
- The "cascade effects" sub-theme under the "ecological" theme contains content that discusses the claimed effects that wolf populations have upon the ecosystems such as contributing to reduced ungulate browsing, which in turn alters riparian areas and creates habitat for beavers and birds.

[18] This is not an evaluative stance, but a topical category (e.g., wolves have value, wolves do not have value).

- The “history” sub-theme under “ecological” is a label for content that specifies historical states of the ecosystem. Such content includes references to the Lewis and Clark expedition, pre-euro American settlement, and pre-human periods.
- The “wolves as property” theme contains content where contributors have asserted that wolves are a type of property in which humans have the ultimate say over their management, although, there was significant disagreement upon which human institutions (e.g., federal government vs. state government).
- The “responsibility” theme contains content which identified who the responsible party should be in particular circumstances. There were considerable differences regarding these circumstances. For example, one contributor claimed that it was rancher’s responsibility to learn how to live with wolves. In other cases contributors laid responsibility upon environmental groups and their lawyers for bringing wolves into their region and disrupting their lives.
- The “religious” theme simply contains any reference to a religious viewpoint. There was considerable disagreement upon what exactly this entailed. Some state that “humans were granted authority over the land via god and thus we can do what we want with wolves for they were given to us by God.” Others however described wolves as “God’s creations in which we are meant to foster their existence, not destroy them.” In the former, this content was also coded at the theme “wolves as property”, that is, that wolves are human property to be controlled for our will, whether that is to limit their populations, or to protect them to achieve the ecological goals that we deem worthy, such as biodiversity; in the end we exercise our dominance over them.

Wolf Trapping

The themes within the wolf trapping category are those which are related to the topic of wolf trapping specifically, not just wolves generally. While there is some overlap with the wolves category, the themes presented here are representative of discussion focused on wolf trapping. The most common themes about trapping are "animal suffering," "modern world," "safety," "indiscriminate," "tourism," and "management tool." No sub-themes were identified within the wolf trapping category. A detailed list of these themes are presented in Table 4 below.

Table 4. Themes relating to wolf trapping.

WOLF TRAPPING				
	Missoulian		**Ravalli Republic**	
Theme	**No.**	**Percent (of 160)**	**No.**	**Percent (of 65)**
Animal Suffering	36	22.50	23	35.38
Modern World	28	17.50	16	24.62
Safety	28	17.50	13	20.00
Indiscriminate	24	15.00	14	21.54
Tourism	23	14.38	14	21.54
Management Tool	21	13.13	14	21.54
Public Land	18	11.25	5	7.69
Conflict of Uses	17	10.63	8	12.31
Humanity	16	10.00	14	21.54
Hunting Values	15	9.38	6	9.23
Responsibility	15	9.38	9	13.85
Wilderness & Nature	15	9.38	5	7.69
Tradition & Entitlement	14	8.75	6	9.23
Economics	13	8.13	3	4.62
Ethics & Morals	11	6.88	4	6.15
Public Image	11	6.88	9	13.85
Reintroduction & Research	11	6.88	0	0.00

Table 4. Themes relating to wolf trapping, continued.

Bans as Slippery Slope	9	5.63	2	3.08
Human Emotions	7	4.38	2	3.08
Other Animal Trapping	7	4.38	0	0.00
Terrorism	7	4.38	2	3.08
Yellowstone	7	4.38	1	1.54
Checking Traps	5	3.13	2	3.08
Livelihood	3	1.88	0	0.00
Vendetta	3	1.88	1	1.54
Commercialization	2	1.25	0	0.00
Religious	2	1.25	0	0.00

The labels for the themes listed above are derived in the same manner as the themes for the wolves category, either as a direct reference to verbatim usage or indirectly as representative of the general content. The theme “bans as slippery slope” is a good example of an indirect label. No content within this theme explicitly states that banning trapping is a slippery slope, rather, contributors allude to that overall point by claiming that if trapping is banned then hunting and fishing will be next. The “management tool” label by contrast, is much more discrete in that it is derived from verbatim usage. Contributors would explicitly discuss the utility of wolf trapping as a tool to manage wolves. Similar to the wolves themes, many of these are easily understood simply by reading the label, however, some warrant further explanation:

- The theme “safety” contains data related to the safety of wolf trapping. Sometimes this was coded as verbatim, in others cases it was slightly more implicit. For example, the theme “indiscriminate” can be easily understood as containing content related to the claimed indiscriminate character of wolf trapping, that other animals besides wolves can be caught in traps. However, this theme is also related to “safety” in particular contexts.

Some contributors discuss a sense of danger to their safety when hiking around places where wolf traps may be set due to their perceived unselective character. In this example then, this content would be coded at both of these themes.

- The theme "modern world" relates to whether or not wolf trapping should be permitted in present times. For example, some stated verbatim that wolf trapping does not belong in the modern world. Others may state that wolf trapping is a barbaric practice that is no longer tenable. In each case the text relates to the modernity of wolf trapping, and more specifically, how acceptable it is today.
- The theme "conflict of uses" pertains to all instances in which contributors mention that wolf trapping conflicts with other uses of the same land. This was principally focused on recreational uses such as hiking, skiing, and walking dogs.
- The theme "hunting values" contains content about how wolf trapping related to hunter values. Some described wolf trapping as being totally in conflict with hunting values, others may argue that trapping and hunting go hand in hand and compliment each other in a mutually beneficial way.
- The theme "vendetta" related to whether or not wolf trapping is a vendetta against wolves.
- The "public image" theme pertains to the perceived or anticipated effects that wolf trapping may or may not have upon Montana's public image either locally, nationally, or globally. This may include Montana as an entire state or, in some cases, more specially the MFWP. The "public image" theme is closely related to the "tourism" theme in that some contributors state that wolf trapping will negatively impact Montana's public image

and deter tourists from visiting the state thus also having a negative impact on the local economy, relating back to the "economic" theme as well.

As shown here, there may be some instances where themes share overlap because contributors are connecting ideas to each other, in other cases, they may be much more specific and discrete. These themes serve as a starting point for a more rigorous analytic process. By breaking the data into themes, the data became more manageable and patterns more easily discernable. The content from each of these themes was used to ascertain various social constructions (stage 2) which are described in the next section.

Stage Two: Social Constructions

Analysis across themes revealed a number of different constructions regarding both wolves and wolf trapping. These constructions represent the discourse of multiple contributors that was identified across themes and they contribute to a common understanding or interpretation of wolves and wolf trapping. The names of these constructions have been derived from verbatim usage within the data. For example, several contributors described wolves as a plague, hence, "The Plague Wolf" construction. The wolf constructions are presented first because that is the primary topic within which wolf trapping is situated. However, beyond this, there is no particular rationale for the ordering of these constructions. Each construction is described in detail followed by excerpts from these data that exemplify these patterns.

The Natural Wolf

A frequent point of discussion focused around the environmental benefits of wolves. This discussion was identified in such themes as "ecological," "ungulates," "apex predator," and "Yellowstone." Contributors to this construction discussed the behavior of wolves and their interactions with ungulates and the resulting impacts upon the landscape. Wolves are described

as playing a critical role in the ecosystem as evidenced by these interactions with ungulates and the perceived cascading effects, sometimes supporting this with the notion that wolves and elk evolved together and that without this dynamic relationship, ecosystems suffer from having too many ungulates on the landscape. Contributors assert that wolves keep ungulate populations under control leading to healthy herds, increased plant growth, and an improved habitat which promotes biodiversity. Further, this dynamic between ungulates and wolves is generally conceived as a self-sustaining system best left alone where wolves are seen as a critical element of true wilderness landscapes that function with minimal human influence. In this way, wolves are constructed as a critical natural element to healthy and balanced wilderness landscapes, often using Yellowstone as a prime example.

> **Wolves belong in the wilderness and are a healthy factor** for their prey, flora and fauna in general[...]If left alone wolves **fill up the niches of wilderness** and **stabilize their own populations**.
>
> – MSLA008, *Missoulian*, 7/26/2012

> The **wolf research in Yellowstone has clearly shown that ungulate herds tend to be smaller and more cautious in the presence of wolves**, but there are not less ungulates. In fact, **their numbers even are rising because diseases have less chance to spread**! Moreover, the reintroduction of wolves to Yellowstone has greatly **improved the biodiversity** in the area.
>
> – MSLA035, *Missoulian*, 1/15/2013

> These animals are **vital to our eco-system**.
>
> – RR809, *Ravalli Republic*, 1/18/2013

> I am against trapping in all forms[...]and want a **complete and healthy ecology in Montana that includes wolves**.
>
> – Audrey, *Ravalli Republic*, 2/8/2013

> Wolves will continue keeping the elk and deer in check YEAR ROUND because **as the role as the apex predator, their job is to keep the ungulates from running rampant.**
>
> – richardr11, *Missoulian*, 2/11/2013

> Wolves have proven their worth; by killing the weak, **herds are stronger**. The **ecosystem begins to re-balance** as other wildlife, plants, birds and fish return to the area within the wolves' realm.
>
> – RR104, *Ravalli Republic*, 10/23/2013

The Cold Blooded Killer Wolf

Some contributors focus on the manner in which wolves hunt, kill, and consume their prey. Wolves are described as opportunistic predators that terrorize ungulates and eat them alive in the most barbaric ways imaginable, killing as much as they can as often as they can and gaining pleasure from doing so. Often depicted as eating unborn fawns/calves and leaving animals to die in pain, wolves are seen as little more than a mouthful of pointed teeth used for tearing flesh. As such, wolves are constructed as immoral killers that do not abide by human ethics, cold blooded murderers that do not respect their prey. This construction was identified primarily in the "killers," "parasitic pest," and "ungulates" themes.

> Will it take someone getting killed for people to realize that these are **opportunistic, thrill seeking, down right dirty hunters** that don't care what their food is as long as their belly gets full, or that they can **kill something and walk away without eating it**, just because they can? How about the wolves **hamstringing animals until they bleed out, or the doe that has her belly ripped open spilling her almost full term fawns on the ground while she's still alive?**
>
> – amanut2_16, *Missoulian*, 6/11/2012

> [T]hey kill **for fun/pleasure/because they can**...whatever the reason is; **they kill for reasons that don't include killing for food**. therefore they are a menace.
>
> – notarichman, *Missoulian*, 6/22/2012

> [...]**terrorist gang practices of wolves** who literally exhaust and terrify their prey in the deadly chase that ends by **getting EATEN ALIVE**.
>
> – RR004, *Ravalli Republic*, 8/6/2012

> [...]**elk and deer that wolves have eviscerated and left to die in agony**. Apparently the wolves consider the unborn fetus a delicacy, so they devour the fetus and walk away from the dying animal.
>
> – RR801, *Ravalli Republic*, 9/21/2012

> [...]a **cow elk feels pain too** when their **calf is ripped from her belly** by 5 or 6 of them worthless animals.
>
> – shackrat101, *Ravalli Republic*, 4/26/2013

> Wolves do not kill an animal before they start to eat them, if you were to ever watch the **cruel barbaric demise of an ungulate** in the grasp of the Canis Lupus Occidentalis (the largest subspecies of the gray wolf) you might have a little more compassion for life.
>
> – MSLA089, *Missoulian*, 10/27/2013

The Plague Wolf

Another topic of concern was related to the predatory nature of wolves and their impacts upon ungulate herds and hunting. In this construction, the focus was less on the individual interactions between wolves and ungulates (e.g., Cold Blooded Killer) and moreso on their effects on ungulate population levels and the habitat more generally. Comprised of themes including "ungulates," "impact on hunting," "population," "parasitic pest," and "ecological," wolves are described as a singular body of animals which is killing too many ungulates. Further, wolves are severely overpopulated and wreaking havoc on the ecosystem. In this way, wolves are constructed as a plague force that is decimating game herds and reducing hunting opportunities and success, and seen as indiscriminate killers that eat anything they find, leaving a desolate empty landscape.

> We could go on forever pointing out to these people that **wolves have practically eliminated the ungulate herds here in MT**.
>
> – RR801, *Ravalli Republic*, 9/6/2012

> [...]what about all of the counties where the **wolves have DESTROYED the elk herds**??? HUH I don't hear you talking about those places **I'm no longer allowed to hunt** because the wolves have killed too many elk!
>
> – Lobo Bandito, *Missoulian*, 12/27/2012

> **They have turned once game rich areas into lifeless, barren landscapes**. Where once you could hike or ride a horse and see elk, moose, deer, sheep you now can't find a track. Even the wolves left once there was nothing left to kill.
>
> – elkguy, *Missoulian*, 12/31/2012

> We have seen **wolves decimate our game herds** and hunting industry[...]
> – Comment Not Approved, *Ravalli Republic*, 2/7/2013

> The wolves have not managed the elk populations. **They have DEMOLISHED the population of elk herds everywhere**. I don't think you quite grasp the idea of what a healthy ecosystem is.
> – RWeisen, *Missoulian*, 3/7/2013

> [...]a non-sportsman like you has no idea of the destruction that has occurred since this **plague to wildlife** was so graciously dropped on the defenseless wildlife it now destroys. The **wolf will kill everything** until they have nothing left to kill and they will be gone from our area for a simple reason, lack of food.
> – MSLA587, *Missoulian*, 6/13/2013

Trapping as a Tool

Some contributors describe trapping as a tool that is used for managing animal populations, conducting research, and reintroduction efforts. This discussion was identified in themes such as "management tool," "reintroduction and research," "modern world," "humanity," and "animal suffering." Advocates claim that hunting alone is not effective enough to control and reduce wolf numbers and thus, trapping is a necessary addition to manage their population. Further, some contributors state that traps are not cruel or inhumane because they are often used by researchers to study animal populations and were used to capture and reintroduce wolves into Idaho and Yellowstone. As such, traps are constructed as a valuable tool with various applications and uses in modern wildlife management.

> To effectively manage wolves, Montana Fish, Wildlife and Parks must have access to every available resource in its management tool bag. **Trapping, like hunting and fishing, is such a management tool**.
> – RR092 *Ravalli Republic*, 7/18/2012

> We just had 100 thousand hunters afield, and maybe twenty thousand had wolf tags. They harvested maybe eighty wolves. They tried **hunting alone and it didn't cut it**. That is why **trapping is such a valuable wildlife management tool**. Some would have you believe that trapping it is horribly cruel. That is just not true! The **FWP has been using trappers to catch, radio collar and release unharmed wolves**.
> – Kuato, *Missoulian*, 12/7/2012

> Did you know that wolves were 'trapped' in Alberta by trappers before being transplanted into Yellowstone and central Idaho. **IF traps are so brutal and cruel why do wildlife biologists and other wildlife experts use them when conducting research studies?**
>
> – AAO22, *Missoulian*, 12/31/2012

> Leghold traps are very effective at CATCHING wolves. Once we catch wolves we can KILL them. **The current hunting methods are not enough to control our wolf problem**.
>
> – Comment Not Approved, *Ravalli Republic*, 2/11/2013

> [...]powerful **management tool of wolf trapping**[...]
>
> – RR019, *Ravalli Republic*, 3/13/2013

> With these new era tools, trapping has become more humane, efficient, and is an **essential wildlife management tool** effectively used to control predators, pests, predatory animals, as well as to protect our domestic herds. For example, with the addition of trapping to wolf management plans last year, Montana's wolf population was finally reduced for the first time since they were reintroduced. It is widely known and proven that **hunting alone will not accomplish controlling wolf populations**.
>
> – RR090, *Ravalli Republic*, 10/20/2013

Trapping as Dangerous Threat

Trapping was described by some contributors as a threat to people, pets, and wildlife due to their perceived indiscriminate nature. This pattern was evident in themes such as "safety," "indiscriminate," "public land," "conflict of uses," and "terrorism." Here, images of bombs and land mines are used to describe the danger that traps pose. As such, it is believed that traps pose a substantial, unnecessary, and unacceptable risk to people enjoying nature and the public lands therein, creating a conflict in which public land users are subjected to a landscape of trapping that affects their behavior and their ability to enjoy nature. Trapping is constructed as a dangerous hazard to everyone, often with emphasis upon the dangers they pose to children and pets.

> Anyone who cares about wildlife, pets, and people should dispose of any trap they see that is on public lands. **They are dangerous devices to anyone who comes in contact with them**.
>
> – richardr11, *Missoulian*, 6/11/2012

> [...]the **trap can be compared to the IED or terrorist bomb**. They are **both indiscriminate** as to who, or what is found in their jaws, both can and do cripple and maim, both are inhumane, and in my opinion are used by persons who really don't have respect for life[...]Also, make no mistake, given enough time, **a person, a child, a family dog or otherwise nontargeted life will be caught in a trap with cruel and inhumane effects and very likely death**.
>
> – RR194, *Ravalli Republic*, 7/18/2012

> **Setting a trap is akin to setting a land mine**: they are **both indiscriminate** in choosing their victims.
>
> – RR901, *Ravalli Republic*, 1/4/2013

> Montana has **indiscriminate trapping** for every species, including those already extinct. It is **hard to know when a trail is safe for little kids, pets and even yourself**.
>
> – sepp, *Missoulian*, 1/8/2013

> There have been several incidents of **pets trapped and injured and limbs mangled and eagles caught and killed**.
>
> – Gadfly, *Missoulian*, 2/12/2013

> What the trapper does not know - or apparently care - is what kind of animal will fall victim to his cruelty. **It might be a wolf, it might be an eagle, it might be little Timmy's beloved German shepherd or it might be little Timmy**.
>
> – RR444, *Ravalli Republic*, 2/12/2013

Trapping as Cruel

Another pattern of discourse focuses on the perceived suffering, and abuse that traps inflict upon caught animals and their indiscriminate nature. This pattern was identified in such themes as "animal suffering," "modern world," "indiscriminate," "humanity," and "ethics and morals." Contributors describe traps as inhumane, barbaric, and indiscriminate torture machines that often catch non-target animals such as lynx and eagles among others. Some claim that traps allow an animal to suffer for days until it is harvested by the trapper, potentially exposing the animal to vulnerable attacks by other predators or starvation. Many stated that trapping is a

practice which does not belong in the modern world, particularly in the United States. These contributors construct trapping as a cruel and immoral activity that should be banned.

> [...]I challenge anyone to tell me that animals do not suffer when they are caught in any of the types of traps that litter our public lands. **Animals caught in traps can languish for days**; starving, unable to defend themselves as they fall victim to predator attacks, waiting for their killers to finally check their traplines; waiting to be strangled, stomped on the chest, beaten, injected with household chemicals[...]
>
> – MSLA934, *Missoulian*, 7/24/2012

> [...]here's the answer **to sadistic, hideous** trapping... ban it completely and leave the wildlife alone. Stop the **torture and abuse**. This is the US, not some backwards third world country. It's long overdue to **act like a modern human** even if that is hard for you and your fellow **animal abusers**.
>
> – LoneWolf25, *Missoulian*, 7/26/2012

> Now let's consider a trapped wolf. It most likely will **suffer for days** in a leg-hold trap before some trapper decides to check his trap and end the suffering of that poor animal.
>
> – RR444, *Ravalli Republic*, 8/8/2012

> They are indiscriminate **torture machines**. I, too, find the use of them hard to grasp.
>
> – lammar, *Ravalli Republic*, 2/8/2013

> [...]trapping has **no place in a modern, enlightened society**.
>
> – MSLA874, *Missoulian*, 3/7/2013

> These practices are **cruel, barbaric,** and I refuse to walk lock-step to the hostile ways of the Old West. This is the 21st Century now and the so-called "traditions" that might've been the thing a hundred years or so ago, are no longer popular in this modern era, and **it's time to thrust Montana out of the primitive 19th and early 20th centuries, into the modern age**.
>
> – Wizard of Hamilton, *Ravalli Republic*, 4/20/2013

Stage Three: Topophilic Natures

The constructions described above have important implications for how people relate to and experience nature. Some of these implications are described here in the form of different natures, each of which are derived and supported by evidence drawn from the data. Though these

do not encompass their full effects (such effects go well beyond the scope of this research), they provide valuable insight into what impacts these constructions have upon nature in Montana.

Balanced Wilderness

Some contributors describe the wolf as a critical element not only to nature, but to wilderness. The power of wolves as a symbol of wild landscapes is closely related to their ecological role within the landscape, a role that humans have tried to fill since their extirpation. This is exemplified above in the natural wolf construction. Within this version of nature, wolves not only transform an unhealthy ecosystem into a healthy one by restoring balance to nature, they also serve to "fill up the niches of wilderness" as one contributor puts it. This symbolism is as much about the presence of wolves as it is the absence of humans. As multiple contributors stated:

> **Nature's law** was through predation, starvation and disease. A harsh system, but it worked and it wasn't [sic] less horrid than trapping. **Humans have upset that balance**.
>
> – RR048, *Ravalli Republic*, 8/29/2012

> A growing number of independent, non-government agency wildlife biologists believe **there should be no hunting of natural predators**, as they are so important to an ecologically healthy landscape, including all the wildlife with which they share the land. **Nature efficiently regulates predator populations with no help from either wildlife managers or sport killers**.
>
> – LoneWolf25, *Missoulian*, 12/29/2012

> **Nature maintains a balance**, in which all creatures survive. From the beginning, **man has disrupted this balance**.
>
> – RR104, *Ravalli Republic*, 7/17/2013

> The wildlife agencies should **stick to managing man**, encouraging a **true wilderness existence of apex predators** and prey and all in between[...]
>
> – Gadfly, *Missoulian*, 1/16/2014

In the quotes above, contributors claim that a healthy nature is a balanced nature, humans have upset this balance, wolves are a critical element to restoring this balanced, and that when

this balance is eventually achieved, nature may enter a more wild state. In this way, balanced wilderness is not only about returning wolves, it is also about minimizing the impact of humans. By restoring nature's balance through the reintroduction of wolves, so to is nature transformed into a more pure or pristine version of nature, wilderness.

Jeopardized Nature

For some people, wolves are a symbol of everything that goes wrong when nature is *not* managed. Such sentiments are expressed in the plague wolf and cold blooded killer wolf constructions above. This may be explained, in part, by a perspective of nature which does not exclude or minimize human activity. Multiple contributors remarked:

> **Humans are a part of nature**. These pro wolf people get dumber every day. **Humans are the apex pradator** [sic] and have been for thousands of years.
> – MTNATIVE1000, *Missoulian*, 8/29/2012

> [...]they [wolves] will always, and i [sic] repeat, always be less important than a human. and [sic] function a wolf does to contribute to the environment i [sic] guarantee **a human can to better, faster and more efficiently**, with far less casualties. GUARANTEED!
> – montanaduck, *Missoulian*, 8/31/2012

> Seems like they are only interested in having wolves saturated to the point where there is nothing left for MAN. **It is un-Natural to have eco-systems where MAN does not have a part**. It is documented that **MAN has been part of the Eco-systems of North America for over 12000 years**!
> – reality22, *Ravalli Republic*, 6/28/2013

> Montana manages wolves to **control their population** and avoid adverse effects the same way **we manage all our wildlife.**
> – Rick, *Ravalli Republic*, 7/21/2013

As the above quotes demonstrate, these contributors see humans as a fundamental and critical component to nature. It is argued that humans are actually better at managing nature than wolves and any attempt at reducing the role of humans in this landscape is seen as unnatural. From this perceptive, wolves are not merely preying on ungulates, they are preying on people's

bond with nature. In this manner, wolves impinge upon some people's experience of nature and jeopardize their ability to maintain an active relationship with the natural landscape. Wolves are framed both as a physical and symbolic threat to people's lifestyle and heritage. For example the following quotes illustrate these cultural connections to nature that have formed around hunting and the perceived threat that wolves pose to this tradition.

> My family are all avid hunters, trappers, and outdoor enthusiasts and my husband and I both have **made the outdoors a part of our childrens' heritage and tradition**, as well as teaching them how to respect nature and the wildlife that help sustain us. Right now, there isn't a checks and balances system in place that will help man and wolf co-exist.
>
> – amanut2_16, *Missoulian*, 6/11/2012

> [...]we are standing up for our rights while protecting **our hunting heritages**[...]
>
> – AAO22, *Missoulian*, 1/16/2013

> The best hope for the hunting industry is to keep wolf numbers as low as possible. Thousands on Montanans have looked for ward to **hunting seasons in order to fill freezers so that their families can eat**.
>
> – RR801, *Ravalli Republic*, 4/21/2013

> [...]hunters have a right to manage wildlife in order to protect their livelihood and keep game populations large enough to allow **hunting, a 200 year heritage** here in Montana.
>
> – Rick, *Ravalli Republic*, 7/21/2013

Hazardous Nature

From some who construct trapping as a cruel activity and a dangerous threat, traps create a very disturbing version of nature in which fear is very much prevalent. Here, a nature with traps is seen as a hazardous experience in which trappers have taken over the landscape by subjecting everyone to their traps which, from their constructions, pose a significant risk to their safety. As a result, some may not feel comfortable using the same trails as trappers and simply avoid places with traps altogether by restricting their nature experience to only areas where traps

are not present. For example, the quotes below illustrate that multiple contributors express fear and distress about recreating near places in which wolf traps may be set.

> It is **disturbing to now hike in the forest** with your family and pets and **worry about losing one of them to a trap**. – FarmerJane, *Ravalli Republic*, 9/5/2012

> I have heard several people **express fear** about taking their dogs where they were used to taking them. – Gadfly, *Missoulian*, 12/26/2012

> As an avid user of public lands I take great exception to **being held captive** by a minority of individuals practicing trapping. I cannot walk on public lands with my dog without **fear of encountering a trap**, which will certainly injure and potentially kill my dog. It is time to end trapping on Montana public lands so that the majority of users can walk in these areas and enjoy the natural beauty that is Montana with out the fear of encountering a trap. – RR901, *Ravalli Republic*, 1/4/2013

> Well, it has begun. The reports of unintended victims of trapping are steadily streaming in. We are dog lovers and outdoor enthusiasts and **made a conscious decision to curtail our hiking range when we first heard of the liberal wolf-trapping season**[...]The liberal allowance of trapping this year **has me terrified** - that one of our beloved pets or someone else's will get caught in a trap. **I will not relax** even after the season is closed. – MSLA630, *Missoulian*, 2/12/2013

Such an experience of nature with traps may be premised on the notion that nature should be a safe place where people do not have to worry about their pets, children or themselves. Some contributors remarked that the public has a right to safety in public lands, designating the government as the responsible entity for entrusting public safety. For example:

> **People have the right to walk their wild lands with their pets in safety**, and **not at risk** from the actions of a selective few. it [sic] seems it's going to take a child to end up in one of these traps before anyone takes any notice. – RR406, *Ravalli Republic*, 1/16/2012

> We have an **ignorant government** here, **allowing humans to be hurt** while enjoying our wilderness. – madtaxpayer, *Missoulian*, 8/6/2012

> There are thousands of wildlife advocates that **deserve to enjoy Mother Nature** without bullets flying over their heads, being caught in traps that are now allowed in public parks and **feeling that taking a walk is risking your life**. – cheese city gal, *Missoulian*, 9/2/2012

> I am responding to 20 live wolf traps near the Lake Como ski trails. Not only are skiers' dogs at risk but all skiers, and many are children. Once someone is hurt in these strong, nasty traps, the **U.S. Forest Service will need to revise its policy**. There are many more skiers than trappers using this area. When the public is at risk the **liability increases**. **Where is common sense in public land use policy?** – RR099, *Ravalli Republic*, 12/28/2012

Observational Remarks

These results comprise the most evident and relevant findings according to the research purpose and questions at hand, that is, how meanings of wolves and wolf trapping impinge upon people's topophilic bonds with nature. There are several other lines of inquiry which are no less important to wolf management which simply could not be explored or discussed here due to length, time, relevance, available resources, among other reasons including the author's inexperience. The results presented here are neither exhaustive nor ubiquitous. Rather, they are the outcome of a focused and purposive sampling and analysis of discourse about wolves and wolf trapping in western Montana that sought to capture the more apparent and pertinent aspects of this topic. While they are not comprehensive in quality, these findings nevertheless hold germane utility for understanding how the presence of wolves and wolf traps shape people's experience of nature and potential insights for wolf management in Montana which is discussed in the next chapter.

Chapter Five: Discussion

The results detailed above reveal that people do not just hold different attitudes toward wolves and traps and that they do not just love them or hate them on a scale from one to ten, but that they have fundamentally different understandings of what these things are and what their proper place in the landscape is. In other words, wolves and traps clearly mean different things to different people, and this lack of consensus poses a significant challenge for those responsible for managing wolves and those who attempt to measure public perceptions about wolves and wolf management. This last chapter examines how these results go beyond attitudes by considering how people construct wolves and wolf trapping, carefully examining what these constructions mean for people's topophilic connections with nature, exploring the value these findings might have for the future of wolf management, limitations, and finally concluding remarks.

Beyond Attitudes

Attitude research is one of the more prominent approaches to studying public perceptions of wildlife, however there are important drawbacks and challenges to attitude research that have been described in the prior chapters of this thesis. The major differences between the attitude approach and the social constructionist approach have already been covered in the previous literature review. In this section, I will revisit one particularly important distinction between these two approaches, where one can be seen as being molecular in scope and the other as molar, in an effort to highlight how the results presented here go beyond attitudes.

Referring to the literature review, recall that attitude theory conceives of attitudes as part of a rational process which can be reduced to discrete and measurable variables. That is, attitudes are the result of people perceiving and evaluating the world (Lutz 1990; Patterson & Williams

2005; Phillips and Jørgensen 2002; Potter and Wetherell 1987). Attitude surveys are designed to measure this evaluative process by presenting the participant with a series of questions or statements. This molecular focus means that attitude researchers can reveal exactly what positions people express toward any phenomena of interest.

While the attitude approach provides important insight into what different groups of people think about wolves, debates over wolf management frequently go much deeper than what people think about wolves. The underlying topic is often about what people value (see Nie, 2003). Showing that rural residents and big game hunters express more negative attitudes toward wolves than urban residents and people who do not hunt big game reveals nothing about people's cultural values. We learn nothing about where these attitudes come from or what sustains them. To truly address the social dimensions of wolf management and recovery, we need to know more than just what people think. It is at this critical juncture where I argue that attitude research provides a partial picture of *what* people think while the social constructionist approach taken here provides a more holistic picture of *how* people think.

Whereas attitude research adopts a molecular focus (e.g., reducing phenomena to measurable variables), the social constructionist approach taken here adopts a more molar focus (e.g., emphasizing holistic understanding). Instead of considering people as passive processors of a static world, this approach considers them as active producers of a dynamic world. A central tenant to social constructionism is that humans are not just perceivers and evaluators of the reality in which they live, they are fundamental to its formation and existence. From this perspective, one cannot evaluate the world without also simultaneously constituting it.

The evaluation of whether or not wolves are killing machines cannot be separated from how one constitutes knowledge about what a "wolf" or a "killing machine" is (see Potter and

Wetherell 1987). The research presented here shows that some people construct wolves as cold blooded killers because they are framed as immoral predators that kill for fun and waste game. Wolves are also constructed by others as a natural element to healthy landscapes because people believe they regulate other flora and fauna populations and promote biodiversity. From these, we can gather that the former values game animals while the latter places more value on biodiversity. Even more, these values are rooted in cultural experiences of nature, a topic that is elaborated upon further in the next section.

A social constructionist approach examines how human perspectives of wolves are formed, maintained, and changed through symbols and meanings. The goal here has not been to analyze discourse to reveal some underlying attitude. Rather, the focus has been on the discourse itself, how it is organized and constructed, and what the consequences of this organization are (again, see Potter and Wetherell 1987). For example, the statement "wolves are a plague to wildlife" is constitutive *of* wolves, not just an attitude *toward* wolves. This statement is used not only to express one's opinion about wolves, it also brings into the realm of possibility that wolves could even be perceived as a plague. One possible consequence of this construction is that nature is in jeopardy. The goal of wolf management then would be to reduce the population of wolves. In comes wolf trapping as a strategy not just to reduce wolf numbers, but to essentially restore nature. In this way, these results reveal not their stance toward wolves (thought it could certainly be deduced), but rather the meaning making that shapes how they understand and interpret wolves and their place in nature.

Much like a painter frames a landscape, discourse frames the wolf. By regarding discourse as the social fabric with which people's perceptions are created, not just expressed, this discourse analysis investigates how people communicate about and frame wolves and wolf

trapping, that is, *how* they think. In this way, these findings may serve as a map or guide of some of the social dimensions that surround wolf management and recovery in Montana, particularly as it relates to wolf trapping.

A Topophilic Guide to Nature in Montana

This section presents a descriptive guide to understanding how wolves and wolf trapping are framed and constructed and how these constructions impinge upon and remake people's bonds with nature. These bonds with nature are described in this research as different types of nature (e.g., balanced wilderness, jeopardized nature, hazardous nature). While three versions of nature are discussed here, they are by no means meant to serve as the ultimate authority regarding the full effects of these constructions. There are likely a plethora of effects that arise from these constructions which cannot be fully encapsulated within the scope of this thesis. Rather, they are topophilic considerations that serve as a useful guide for thinking about how the presence of wolves and wolf traps impact people's bonds with nature within the context of wolf recovery and management in Montana.

People construct wolves and traps in very different ways. This has important consequences for how nature is understood and experienced in Montana because the meanings attributed to wolves and traps do not end at their physical bounds, rather, these meanings are absorbed and infused into the landscape. As people interact with the landscape, so too do they interact with these meanings. As a result, the manner in which wolves and traps are framed and constructed sets parameters for how people understand and experience nature (see Mitchell 2005). For example, for some, nature is jeopardized by the presence of wolves and seek to use trapping as a way to restore nature. However, this conflicts with the way in which other people experience nature as a hazardous landscape in the presence of wolf traps. From this perspective,

nature is a terrain of contested meanings because of how these meanings influence their lives and bonds with nature. This tension is manifested here in the form of these different topophilic natures.

Wolves have long been a symbol of wilderness. Indeed, some believe that protecting wolves is synonymous with protecting wild landscapes (Nie 2003). This perspective of wolves is embodied here in the natural wolf construction where wolves are framed not only as a fundamental component to healthy landscapes, but also a key element to fostering true wilderness. This may be explained by a cultural disposition in which nature is valued more in the absence of human control, that nature is somehow more pure and desirable when set apart from human dominance. Thus, the wolf's role as an apex predator within ecological systems is seen as a way to restore the balance of nature and minimize the need for human management. From this perspective, wolves are an important part of nature, not only for their physical properties, but their symbolic value as well. Within this context, nature with wolves is not just any nature, it is wilderness – a type of nature which carries special meaning. There is perhaps no better way to exemplify this sentiment than the statement of Soulé and Noss (1998, 24) who claim that, "Wilderness is hardly 'wild' where top carnivores, such as cougars, jaguars, wolves, wolverines, grizzlies, or black bears, have been extirpated. Without these components, nature seems somehow incomplete, truncated, overly tame. Human opportunities to attain humility are reduced." They touch upon a fundamental aspect of wilderness that Tuan highlighted in 1974; wilderness is a state of mind, an experience rooted in culture. By restoring wolves, so too is the "emotional essence" of wildness restored to nature.

As wolves return to the landscape and fulfill their role as top predator, there is another predator that has not taken too kindly to their company – humans. This is evident here within the

cold blooded killer and plague constructions of the wolf. Within this context, the ideal nature is one in which humans play an active role on the landscape, often in a management role or as a consumptive user. Indeed, hunting has been responsible for connecting humans with the beauty of natural landscapes and fostering its reverence in Europe since the 1400s (Tuan 1974). For some, the presence of wolves as an apex predator is seen as a threat to their bond with nature. Such a perspective frames the wolf as a competitor to human interests by focusing on their impacts upon game species such as elk, which are often revered by hunters. In this narrative, wolves are blamed for declining game populations and barbaric hunting tactics which are seen as morally reprehensible. This perception of loosening control or connection with the natural landscape has significant impacts for some people whose traditions and lifestyle are engrained into this consumptive-based experience of nature. Indeed, results show that many are concerned not just about the ungulate species themselves, but about their cultural connections to them, this is manifested here in the jeopardized version of nature where wolves are framed not just as a threat to game herds, but to their heritage. These concerns mirror those investigated by Nie (2003) who found that Friends of the Yellowstone Elk Herd and some outfitters were concerned about wolves decimating elk, making them more difficult to hunt, and a significant threat to their customs, culture, and lifestyle.

Within this imperiled reality, nature becomes a place of decimation in which wolves are the primary culprit. As a result, trapping has become the latest addition to the MFWP's wolf management tool bag. Framed as a necessary management tool to reduce wolf populations and alleviate strain upon game populations, among other reasons, trapping is fast becoming (if not already) a critical element in the effort to restore human control over a landscape perceived as

infested with wolves. However, the implementation of wolf trapping has not been without criticism.

There are some contributors who see trapping as a horrible atrocity against wildlife. Here, trapping is constructed as a morally reprehensible crime against wildlife because of the pain and suffering inflicted upon whatever wildlife a trap might catch. This is often supported by claims that "animals caught in traps can languish for days" highlighting the indiscriminate qualities of trapping as well as the fact that trappers are usually not around when an animal is trapped. In this manner, trapping is framed as an inhumane, cruel, and barbaric practice that should be banned.

Though many have long derided animal trapping for its perceived cruelty, some advocates continue to endorse its use for wolf management. This may be explained in a number of ways. Some simply disagree with the claim that trapping is cruel, arguing that traps were used to reintroduce wolves and have long been used by mangers and researchers to study wolves (for example, to capture and tag an animal with the intent of tracking their location). Still others support wolf trapping based on a perspective of wolves in which they are just as cruel and inhumane, if not more so, than trapping. Such sentiments are evident in the cold blooded killer construction in which wolves are depicted as animal abusers that terrorize prey, inhumane and immoral hunters. Thus, by framing the wolf as a cold blooded killer, trapping is seen as acceptable in relation to the perceived cruelty of wolves. The more cruel wolves are constructed to be, the more acceptable trapping may be to manage them. This sentiment, however, is not shared by everyone.

Animal trapping has long been a contentious topic prior to wolf management, however, its most recent use to control wolves has incited further controversy. For some, nature should be a safe place, or, at least not made any more dangerous through human actions than it already is.

Due to the indiscriminate quality of traps, they are seen by some as a dangerous threat to their safety and the safety of their children and pets. Trapping then, is framed as public safety threat to one's enjoyment of nature. Within this context, trapping transforms nature into a veritable minefield, creating a landscape of fear and apprehension in which no one is safe, or at least, feels safe.

Navigating Wolf Management in a Landscape of Conflict

The conflict surrounding wolf recovery and management is a struggle over cultures and values (Nie 2001, 2003); at its root it is a contest of symbols and meanings (Scarce 1998; Wilson 1997). The MFWP must not only navigate these conflicting values, it must also find a balance between these values, the relisting threshold (150 wolves and 15 breeding pairs over three years or 100 wolves and 10 breeding pairs any time), and other ecological concerns. Such a task seems insurmountable. Indeed, the sociopolitical dimensions surrounding natural resource management is one of the major challenges facing traditional management strategies, such as the techno-rational scientific approach (Nie 2001, 2002, 2003), and, as is argued here, why a more holistic (e.g., molar) understanding is increasingly necessary.

The challenges described above are indicative of "wicked problems," of which, wolf recovery and management may be considered. Wicked problems are problems that involve uncertain facts, opposing values, high stakes, and timely issues (Funtowicz et al. 1999; Ludwig 2001). Numerous scholars have noted many issues related to natural resources and the environment as wicked problems, for example: biodiversity (Redford 2013), climate change (Ludwig 2001), conservation (Boyd 2010), ecosystem-based fishery management (Berkes 2011), endangered species (Ludwig 2001), fisheries and coastal governance (Jentoft and Chuenpagdee 2009; Khan and Neis 2010), forest management (Ludwig 2001), and wildlife management

(Haubold 2012). These problems cannot be clearly or objectively defined, and as a result, there is usually no definitive solution and likely never will be because of contradictory approaches which are all equally plausible (Berkes 2011, Ludwig 2001). Such wicked problems are, for all intents and purposes, perpetual problems and will often resurface from time to time as mangers apply new strategies.

Wolves have been a wicked problem since before they were reintroduced. Indeed, the conditions of reintroduction were hotly debated among environmental groups, ranchers, and others. Since this time, wolf management and recovery has been a perpetual problem that has resurfaced from time to time, most recently with the delisting of wolves in Montana and Idaho in 2011, and the 2013 USFWS proposal to delist wolves throughout the contiguous United States. Additionally, scientific facts regarding the ecological benefits of wolves are still uncertain. For example, there is ongoing debate within the scientific community about the specific interactions between wolves and elk, and the resulting cascading effects upon the ecosystem (Mech 2012). The geographic scope of wolf management and recovery also poses a unique challenge because the community of interest (those that are concerned about wolves) is much larger the community of place (where wolves actually inhabit). Wolf management is a national concern and has been for some time. Yet, wolves only exist in isolated pockets across the U.S. (Figure 1). In other words, wolf management and recovery in Montana is not strictly a Montana concern. This creates a complex dynamic where the values of the community of the place may not align with the values of the community of concern (Patterson, Montag, and Williams 2003). There is also no definitive definition of the problem of wolf management, indeed, there are likely multiple problems and multiple ways to frame and approach wolf management. For example, one person may frame wolf management as a problem of ecological balance, while another may frame it as

an issue over cultural traditions and heritage. Neither approach is technically wrong (wolf management and recovery is as much about ecology as it is culture), and yet, each would entail vastly different strategies and solutions. And finally, there are a vast range of meanings and values attributed to wolves and their management and recovery as evidenced within the data presented here. Each of these points indicates that wolf management and recovery is, like many other problems related to the natural resources and the environment, a wicked one that poses a significant challenge to wildlife managers.

Current management techniques that rely upon technical solutions, expert scientific knowledge, and objective value-neutral methods are not equipped to deal with wicked problems because the social dimensions that surround them (e.g., values, and meanings) cannot be reduced to measurable variables (Berkes 2011; Ludwig 2001). In other words, current management approaches are designed to rely upon molecular knowledge (e.g., attitudes) when wicked problems, such as wolf management, require molar knowledge (e.g., social constructions) (see Patterson and Williams 2005). How then, if we understand that current management strategies are not prepared to address the problems facing wolf management and recovery, are we to move forward? One solution may begin with acknowledging the social roots of wildlife management and the diversity of values to which it must cater.

Social policies and institutions (e.g., wildlife management agencies) are rooted in the values and goals of a specific culture, in a specific place, and a specific time in history. As these values become more varied and broad, conflicts over wildlife management become increasingly common and passionate, and solutions difficult and elusive (Patterson, Montag, Williams 2003). In other words, how we choose to manage wildlife is historically and geographically contingent; it is based on the values of the place and time. As these values become increasingly diverse, so

too does management become increasingly difficult because managers must navigate a wider range of concerns. What is needed, perhaps, is a map or guide of the social dimensions which can be used to foster a more sophisticated understanding of theses values and meanings. But in what context would this be useful?

The public's role in wildlife management has traditionally been as the beneficiary of expert management decisions which emphasize scientific and technical knowledge rather than public participation (Patterson, Montag, and Williams 2003; Williams and Matheny 1995). Increasingly, there are calls for a more democratic approach that integrates individuals from the community. This is often conceptualized as a collaborative process in which relevant stakeholders come together to make a decision, generally through compromise and/or consensus (Duane 1997; KenCairn 2000; Manring 1993; Nie 2003; Patterson, Montag, and Williams 2003; Primm 1996). Such stakeholder-based collaborative approaches to conservation have become more commonplace among natural resource managers, particularly regarding wolf management (Nie 2003). However, simply bringing these individuals into a collaborative decision making process does not ensure mutual understanding of the values and meanings that surround the wicked problems of wildlife management (Patterson, Montag, and Williams 2003).

Patterson, Montag, and Williams (2003, 174) recommend developing knowledge about how people frame and communicate the issue. They state, "Research capable of analyzing social discourse about public values and interests and communicating that knowledge in a way accessible by planners as well as stakeholder groups offers the potential to greatly facilitate collaborative processes." Such knowledge would help stakeholders gain a better understanding of the underlying values and meanings and foster "civic professionalism" which is desperately necessary in debating passionate issues such as wolf management (Nie 2003). Further, by

striving for mutual comprehension, stakeholders may begin to acknowledge opposing values as legitimate claims and move toward a more productive discussion about what decision is best considering the needs and concerns of everyone involved, rather than the perpetual debate about what the "correct" answer is. In this manner, the discussion is driven by mutual choice and understanding rather than conflict and animosity (Nie 2003, also see Briand 1999).

The value of these findings for wolf management is premised on the notion that it is not so much how people perceive wolves that is important, but how those perceptions affect people's lives. For example, some people perceive wolves as a plague force. However, this fact alone does not fully explain the social dynamics of wolf recovery and management. By considering these constructions through a topophilic lens we can begin to better understand their importance. Wolves are seen as a plague not just because they are killing animals, but because their presence symbolizes a change in the meaning of nature, a change which threatens some people's cultural connections to nature (e.g., jeopardized nature).

While the primary objective of this thesis is not motivated by developing management solutions, these findings are merely a first step toward producing helpful knowledge which should presented be in a more accessible format, they still offer a glimpse into how wolves and wolf trapping are framed and communicated. This insight reveals that these phenomena are constructed in vastly different ways and has important implications for what nature means in Montana which is increasingly shared with both wolves and wolf traps. Such an acknowledgement is critical to the future of wolves in Montana. Wildlife managers must see themselves as not just managing wildlife, but also indirectly shaping people's topophilic connections with nature; because ultimately, the debate over wolves and wolf trapping is so

impassioned, not only because of their perceived qualities, but what those qualities mean for how people relate to, understand, and experience nature.

These findings could be used to help managers, policy makers, stakeholders, and others, navigate the dynamic social dimensions of wolf management with a more informed understanding of how people frame both wolves and wolf trapping, and how they impinge upon and remake people's bonds with nature in Montana. My hope, is that this guide may be used to navigate towards a common ground and foster a more productive dialogue.

In summary, current management strategies cannot deal with the complex sociopolitical value issues that surround wolf management and recovery. What is needed is a more holistic knowledge that maps out the social dimensions of the issue. This knowledge could lead to a richer understanding and mutual comprehension. Thus, I present this topophilic guide which describes the various social dimensions as such a form of knowledge.

Limitations

Limitations are an important element of any scientific investigation because it sets bounds for how these findings should be interpreted. With this in mind, there are important limitations that must be taken into consideration. These are related to two primary characteristics of the research design: discourse analysis as a methodology and choice of data.

While the value of the specific form of discourse analysis employed here, discursive psychology, has been discussed prior, there are some limitations to this approach. The major consideration here is about the dominance of each of these constructions or topophilic natures. Are there some that are more or less powerful or prevailing than others? If so, which ones? Such a question cannot be answered by discursive psychology because the emphasis is upon how different interpretations of reality are constructed and maintained, not the power relations of

these interpretations. However, another form of discourse analysis, critical discourse analysis, could be used to address this drawback.

Critical discourse analysis investigates how discourse is used to create and maintain power relations and how it may be used to challenge these power relations. For example, such an analysis on this topic may have sought to analyze the discourse of various discrete groups such as hunters, environmentalists, government agencies, or others in an attempt to reveal the power dynamics between these groups. Such an analysis would theoretically reveal knowledge about which discourses are more or less dominant than others and what secures that dominance in place. Future researchers interested in investigating the dominance of different social constructions of wolves and wolf traps should carefully consider critical discourse analysis.

Another important consideration regarding the limitations of these findings concerns the question of how representative online news forums really are; are these findings an accurate representation of the public discourse in western Montana? Previous research on this topic suggests that online news comments trend toward a more negative sample bias.

Freeman (2011) conducted a content analysis of online news comments regarding plain packaging legislation for tobacco products in Australia. At the time, the Australian government had recently introduced a legislative mandate for plain packing of all tobacco products. Freeman found that negative comments were 2.5 times more common than those in support of the plain packaging policy. Freeman suggests that people may simply be more inclined to comment when they encounter content they disagree with because they may feel underrepresented whereas those who agree with the content have already had their views confirmed and validated within the public discourse. In other words, online news forums may elicit more negative comments in general because contributors with contrasting views are simply more motivated to respond.

Indeed, this claim is supported by Chmiel et al. (2011) who conducted a study of emotions expressed by contributors of the British Broadcasting Corporation's (BBC) online forum. They found that negative emotions were a significant motivation for contributors and that the most active contributors in the BBC forum largely held negative opinions toward the topic of interest in which they were commenting.

While I was able to partially control for contributors who were more active by choosing the individual as the unit of analysis, thus giving equal weight to each contributor's text, the motivations of each contributor are more difficult to gauge in an effort to obtain a representative sample. With this in mind, these findings may be biased toward those who hold more negative perceptions of wolves and wolf trapping respectively. This may be most apparently observed in the social constructions section of the results. Note that there is a ratio of one positive construction (natural wolf and trapping as a tool) to two negative constructions (cold blooded killer wolf, plague wolf and trapping as dangerous threat, trapping as cruel) of each topic (wolves and wolf trapping). Similarly, only one positive topophilic nature (balanced wilderness) construction was identified compared to two negative (jeopardized nature and hazardous nature). As a result, discourses regarding positive perceptions of wolves and wolf trapping may be under-represented in this analysis.

While it is true that these findings are likely more negatively biased, another related consideration regards the comprehensiveness of newspaper discourse; are online comments, letters to the editor, and guest columns an exhaustive documentation of each individual's discourse? The format of these texts are generally limited in their length with online comments typically being the shortest and guest communes trending longer. While there was some variation, they are nonetheless very brief snippets of each individual's discourse which means

that this data sample may lack the full details, thus limiting their explanatory faculty. Typically, this can be addressed through long interviews where the researcher can ask follow-up questions to clarify something or gain more knowledge about a particular topic or statement. This was not an option with the chosen data sources. However, it should still be remembered within this context that a strength of this data source is its seemingly more natural state of discourse. None of this discourse has been in any way affected by the researcher because it already existed in the newspaper, it was not prompted, they are real examples of discourse in action. Nevertheless, these findings should be seen as only a partial sample of the entire discourse occurring in western Montana. Continued research should focus on the dominance of these discourses, their comprehensiveness, with attention paid to controlling for negative biases.

Conclusion

Discourse makes the world meaningful, it is used to construct meaningful interpretations of what we perceive as reality. These interpretations, which I have referred to throughout as social constructions, shape and develop our bonds with the world. These topophilic attachments create emotionally charged landscapes which we come to know and experience as nature. It must also be remembered that as nature is experienced, it too may reinforce these social constructions. It may also challenge these social constructions as people respond to changes in the landscape. In other words, topophilia is not the end product, but rather where the conflict over wolves and wolf trapping has the most apparent impact on our lives and the ways in which we experience nature. The conflict over wolves then is not just about wolves per se, but about the emotional attachments people have to landscapes of nature. Wolves are merely a symbolic, but important, container or vessel within which these differing attachments to nature interact and compete.

Gray wolves once roamed across large expanses of the U.S. However, by the early 20th century wolves had been extirpated from much of their historic range largely due to westward settlement by Euro-Americans. As views of the natural world began to shift during the 1960s-70s, wolves began to be seen as a critical component of ecological systems and the ideal of wilderness, a notion that is still pervasive across much of the U.S. In 1973, wolves were placed under federal protection of the ESA, eventually leading to reintroduction efforts in Yellowstone National Park and wilderness areas in central Idaho in 1995. Though reintroduction was not without serious contention, the U.S. 10th Circuit Court of Appeals ultimately ruled in favor of reintroduction. Wolves in Montana were eventually removed from federal protection via congressional action in 2011, and management was entrusted to the MFWP. Under state management, Montana has implemented public wolf hunting seasons since 2011, and public wolf trapping seasons since 2012. While wolf recovery and management has always been a contentious topic in Montana, the recent implementation of trapping seasons as an additional management strategy has further inflamed tensions and complicated an already problematic issue.

This research was designed to discern and analyze the various meanings of wolves and wolf trapping that are being constructed within Montana, and how they relate to human attachments to landscapes of nature. This was achieved by investigating how people construct wolves and wolf trapping, and how these constructions impinge upon and remake people's understanding and experiences of nature in Montana. The major concepts discussed here, landscape, nature, wilderness, and topophilia, along with the results, show how decisions about wildlife also indirectly shape people's topophilic connections with nature.

Previous studies about human perceptions of wolves and wolf management have primarily adopted a molecular focus which regards humans merely as receptors and evaluators of a preexisting world, and seek to reduce this world to measurable variables. This is generally achieved through the use of attitude surveys where participants mark on a scale how much they agree or disagree with a specified statement. The results are typically used in attempts to predict and potentially alter attitudes and behavior. However, numerous scholars have argued that predicting and altering attitudes faces considerable challenges and limitations. Social constructionism offers an alternative approach that focuses on meanings.

This research employs a more molar focus in an effort to produce a more holistic form of knowledge that recognizes humans as contributors to the phenomenon of interest. A discourse analysis of reader-contributed content in local newspapers was undertaken to this end, under the premise that discourse is the social fabric with which people construct meanings. Whereas the attitudinal approach reveals what people think about wolves, this approach reveals how people think about wolves by investigating the process of social construction, how people create and assign meaning to the world.

Wolves were eradicated from the landscape because their existence was no longer welcomed. Their renewed presence, and subsequent management, has ignited passionate debates over their appropriate place in the American West. In trying to get rid of them, trying to protect them, or just trying to live with them, wolves have transformed the Montana landscape, both physically and symbolically. As such, their continued recovery and management infuses meanings into the landscape that bear upon how people relate to and experience landscapes of nature which are increasingly shared with both wolves and traps.

For some, wolves are constructed as a critical component to nature and a symbolic power that transforms domesticated natural landscapes into seemingly more balanced and healthy wild lands where human imprints are indiscernible and experiences heightened. For others, wolves are constructed as immoral killers that abuse their prey and a plague force that only serves to destroy ungulate herds, threatening their lifestyle and heritage, putting transforming nature in jeopardy. As a result, trapping is seen as an essential tool to restoring human control over a landscape perceived as infested with wolves. However, some view trapping as morally abhorrent, and traps as cruel torture machines that have no place in the modern world. Still others frame trapping as a dangerous threat to their safety, kids, and pets, creating a landscape of fear and apprehension. These diverging constructions and topophilic natures are indicative of an issue that has haunted the West for the better part of two decades, and continues to pose a significant challenge for natural resource managers.

In summary, wolves and wolf trapping play an important role in how people relate to and experience nature in Montana. As such, wildlife managers must see themselves as not just managing wildlife, but also indirectly shaping people's topophilic connections with nature. Because ultimately, wolves and trapping incite such impassioned discourse, not only because of their perceived qualities, but what those qualities mean for how we relate to, understand, and experience nature. Moving toward a more collaborative approach to managing natural resources may provide new opportunities and solutions, but it does not ensure them. By going beyond general attitudes and investigating the specific reasonings that peoples construct, these findings may act as a map to help managers, policy makers, and stakeholder navigate the complex social dimensions of wolf management and may lead to more a productive dialogue.

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