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LESSONS FROM WOLVES:
STAKEHOLDER PERSPECTIVES AND EXPERIENCES WITH NORTHERN ROCKY
WOLF REINTRODUCTION

By

Jami Lynn Wright

Accepted in Partial Completion of the
Requirements for the Degree
Master of Arts

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MASTER'S THESIS

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Jami Wright
March 21, 2014

LESSONS FROM WOLVES
STAKEHOLDER PERSPECTIVES AND EXPERIENCES WITH NORTHERN
ROCKY MOUNTAIN WOLF REINTRODUCTION

A Thesis
Presented to
The Faculty of
Western Washington University

In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts

By
Jami Wright
March 21, 2014

Abstract

The gray wolf, *Canis lupus*, inhabited all parts of the North American continent for at least 300,000 years prior to European colonization (Wilson, et al. 2000). Lopez (1978) estimated the species population to have been around several hundred thousand in just the western United States and Mexico. In the short time span of 150 years, Euro-Americans fiercely eradicated this predator to the brink of extinction for preying on domesticated livestock during American colonization. By the mid 1900's the grey wolf was absent from this land with the exception of rumored howls in the northernmost states. Then, in 1995, only sixty years after the completion of one of the most aggressive species eradications in U.S. history, the U.S. Federal government reintroduced *Canis lupus* into Idaho, Montana and Wyoming, despite extreme protests from these Rocky Mountain States.

My research seeks information pertaining to the human element that essential to co-existing with wolves. I hypothesize that human-human conflicts *about* wolves are more prevalent than actual conflicts *between* humans and wolves, such as attacks or property damage.

This hypothesis was examined while conducting fieldwork in Central Idaho. I utilized formal, informal, and unstructured interviews, as well as participant observation, with ranchers, conservationists, and the Nez Perce. The research sample consisted of seven individuals, three ranchers, three conservationists, and one Nez Perce man.

My findings indicate that human-wolf conflicts do exist, but that conflicts more often are between different groups of people regarding control over management of valued natural resources. Additionally, I found that people vary in terms of where they derive their authority on such issues, such as number of generations spent on the land versus formal education.

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Chapter 1. Introduction

The 1995 reintroduction of the gray wolf, *Canis lupus*, into the Northern Rocky Mountains has proven to be highly volatile and controversial. By the 1930's, only sixty years earlier this North American native was eradicated from the continental U.S. except for a small population in northern Minnesota (Smith and Ferguson 2006). The wolf's near extinction was hastened by aggressive extermination policies enacted to protect domestic livestock and wild ungulates on behalf of the interests of ranchers and hunters during Euro American colonization and westward expansion.

Eradication in most regions resulted in the overpopulation of deer and elk, in the mid 1900's. The absence of wolves resulted in overgrazing, and loss of biodiversity especially in riparian zones (Smith and Ferguson 2006). The explosion of deer and elk populations prompted a re-evaluation of wildlife management policies. In 1973 the U.S. Senate and House of Representatives enacted the Endangered Species Act (ESA) in order to protect the educational, historical, recreational and scientific value of species endangered because of economic growth and development (United States Senate and House of Representatives 1973).

Wilson (1999) summarizes the ESA's overall impact as the culmination of the gradual transfer of wildlife management authority to the federal government and away from the states. In response to this shift in power and the reintroduction of *Canis lupus*, the state of Idaho enacted legislation in 1988 prohibiting the Idaho Department of Fish and Game from participation in most wolf recovery efforts, including the expenditure of funds for such activities (Idaho Legislative Wolf Oversight Committee 2002). Many

members of the Idaho congressional delegations representing rural regions of Idaho urged Governor Phil Batt to prevent the reintroduction of the wolf by confronting the federal representatives carrying out the reintroduction using the National Guard or State Police. No governing body in Idaho was willing to approve any state plan for wolf recovery (Littell 2006). This permitted the U.S. Fish and Wildlife Service to endorse a third party for Idaho's wolf management; the Nez Perce, a federally recognized Native American tribe in north central Idaho. This was the first time in U.S. history that a Native American tribe was authorized by the federal government to manage a natural resource not on reservation lands. Simultaneously, Idaho legislators were able to maintain support from the powerful livestock industry while continuing to fight against the reintroduction of wolves.

Scientists focusing on wolf recovery agree that the biggest problem confronting wolf recovery is not ecological or biological, but in fact cultural (Fasdone and Kendrot 2001; Schlickeisen 2001). David Mech (2001), a wolf biologist for over two decades, claims that a species reintroduction increases the need for management and is a continual process demanding the attention of wildlife officials regarding behavior changes among local residents. If protected area authorities fail to address the needs of the local people or to work with them to address such conflict adequately, the conflict intensifies, becoming not only conflict between humans and wildlife, but also between humans about wildlife.

Francine Madden (2004), an international researcher who specializes in human-wildlife conflict mitigation with a variety of species, found that the level of public outcry is not in direct proportion to actual property damage done by the animal. A cooperative report released every five years by the National Agricultural Statistics Service and Animal and Plant Health Inspection Service (2011) supports this argument. In 2010 Idaho lost a total 93,000 head of cattle. Less than 2% of the loss was attributable to wolves, or about 1,830 head of cattle. The largest killer of cattle in Idaho in 2010 was respiratory disease, claiming just less than 30% of the total cattle lost.

Rather, public outcry often has much more to do with perceptions of potential risk, a lack of control over addressing the problem or, pre-existing conflict with opposing interest groups (Madden 2004). Local residents often feel that their sovereignty, or authority for a state to govern itself is threatened when a species reintroduction is federally mandated in their area (http://www.oxforddictionaries.com/us/definition/american_english/sovereignty?q=sovereignty accessed March 11, 2014). Anger from feeling powerless and threatened by existing laws is often misdirected at the animal. Madden (2004;253) argues that research is needed to understand and address the levels and complexities of human-human conflicts that are an integral part of, and exacerbate, human-wildlife conflicts.

Although coming from a different disciplinary background than Madden, anthropologist John Knight (2000) also argues that human-wildlife conflicts are actually human-human conflicts about wildlife. These conflicts manifest themselves in different

forms. Many times they can be understood as internal human struggles surfacing physically through conflicts with an animal. Another form of this conflict manifests itself as a struggle between interest groups over the animal, maybe between a group of citizens and the government, illustrating that it is not the actual animal that is the problem, but instead, a conflict of interests among humans.

Given the complexity of human-wildlife conflict, in-depth research methods need to be utilized far more often than they have been. Current complimentary research focuses on general attitudes towards wolves using mass surveys. For example, Bruskotter et al. (2007) re-administered a survey created by La Vine (1995) to assess public attitude regarding wolves in Utah and suggested that reintroduction would create divisions within the public. Karlsson and Sjöström (2007) used questionnaires in Sweden to find that people's attitudes towards wolves are more negative the closer they live to the animal and that these attitudes are likely developed through indirect experience, as opposed to direct experience with wolves. While mass attitudinal surveys are important, they do not explain the conflict or attitude, the origin, nor the context.

Knight (2000) brings attention to the fact that the human dimension of our relationships with wildlife has been overlooked within our chain of education. He believes anthropology is in the position to offset the current deficit of understanding surrounding the 'human dimension' of wildlife management and can do this by documenting local or indigenous knowledge and practices. Stoffle et al. (1999) and Van

Vlack (2007) define local knowledge as recently learned by people who have just arrived in an ecosystem, indigenous knowledge as awesome observations explained and supported by supernatural constraints. Urs Breitenmoser (1998), Swiss large carnivore scientist, asserts that anthropology can assist in the development of locally sensitive wildlife management policies by ethnographically documenting local perspectives on wildlife.

Social science studies focusing on human-wildlife conflict rarely include qualitative data or perspectives from indigenous groups with a long history of coexistence with wildlife. The aim of this thesis is to conduct a focused ethnography contributing to a holistic perspective on human-human conflicts regarding wolf reintroduction in Idaho while documenting any pertinent Traditional Ecological Knowledge. Traditional Ecological Knowledge, or TEK, will be defined as time-tested observations that are shared by a group who have remained in an ecosystem (Stoffle, et al. 1999; Van Vlack 2007). I focus on the values, attitudes, conflicts, and TEK pertinent to humans coexisting with wolves, of three interest groups affected by the presence of wolves in their area. This will be done through stakeholder interviews with ranchers, conservationists and the Nez Perce, as well as field observation.

Unstructured interviews were set up with key informants from each interest group to better understand the groups' environmental constructs regarding wolves. Initially I had hoped to find a group of key informants to make up a focus group through snowballing, which is the process of asking key informants who other prime key

informants are, but it proved to be difficult to contact informants due to the controversial nature of the topic. Instead, I conducted individual, semi-structured formal interviews that were tape-recorded, kept field notes from informal interviews and did field observation.

The sample was taken from central to north central Idaho. Idaho's population is 1,612,136 according to a 2010 census, with central Idaho being the least populated part of the state. Nine million acres are dedicated to roadless territory in central Idaho, which is a major reason why wolves were reintroduced there. One of the few towns in central Idaho is Stanley, with a population of 63 as according to a 2010 census. This was an appropriate area to focus my interviews because of the number of interest groups in the greater Stanley area. Interest groups currently include: Defenders of Wildlife, located in Ketchum, Id, (approximately one hour away from Stanley) and the Idaho Anti Wolf Coalition, whose chair currently resides in Stanley, the Nez Perce wolf recovery team, a small group of non-native and Native Americans connected by their collective work on the initial wolf recovery effort headed by the Nez Perce Tribe are predominately based a few hours north of Stanley in the greater Lewiston, Idaho area.

The body of this thesis will start by introducing wolf biology and behavior in Chapter 2 and then discuss some of the widely varying beliefs associated with these topics. Chapter 3 covers the history of wolves in North America starting with pre-colonial times, moving into colonial practices and policies, and then finally discussing present day reintroduction policies. This section highlights the origins of attitudes, and

thus, the eventual cultural divide on species' management, ultimately setting the tone for differing stakeholder perspectives. Chapter 4: Idaho Today follows, covering the state's anti-wolf stance due in part to its interdependent relationship with the livestock industry. The state's anti-wolf stance ultimately led to the Nez Perce Wolf Recovery Program that is discussed in Chapter 5 as well as a brief explanation of Nez Perce history. Chapter 6 discusses my methodology, Chapter 7 data processing, followed by results in Chapter 8 and finally Conclusions.

Chapter 2. *Canis lupus* Science in North America.

Opportunities to study wolves in their natural habitat have been limited due to their elusive nature and aggressive human eradication of the species (Smith and Ferguson 2006). Wolf ecology as studied by biologists historically ignored interaction with human communities unless motivated by eradication (Coleman 2004). Wolves are not going to survive as a species without a better understanding of the attitudes and misconceptions regarding wolf behavior and the role of the species in the local ecology (Northern Rocky Mountain Wolf Recovery Team 1987).

Canis lupus Distribution in North America

The evolution of *Canis lupus* began one to two million years ago during the Pleistocene period (Wilson, et al. 2000). It was at this time the gray wolf's ancestor, *Canis dirus*, inhabited North America. Some populations of *Canis dirus*, stayed in North America while others migrated across Beringia into Eurasia. It was in Eurasia where *Canis dirus* evolved into the gray wolf, or *Canis lupus*. *Canis lupus* returned to North America about 300,000 years ago. The population of *Canis dirus* that remained in North America evolved into the present day coyote, or *Canis latrans*. The gray wolf and the coyote share a common ancestor but are separate species. According Mech and Botiani (2003), *Canis lupus* has been one of the most widely distributed land mammals on earth, tolerating -70 to 120 degrees Fahrenheit and sustaining themselves in places where humans cannot..

Only a few hundred years ago there were continuous populations of *Canis lupus* across the entire northern hemisphere (Leonard, et al. 2005b). Today, the species continues to thrive in some of the northernmost areas but has been extirpated in many areas with larger human populations. This species was present in these areas for, easily, two hundred thousand years (Mech and Boitani 2003). The green in **Error!**

Reference source not found.

represents the areas in which *Canis lupus* continues to reside today. Red depicts areas where *Canis lupus* has ceased to exist within the last few hundred years due predominantly to human efforts at eradication. The small green dots in the northwestern part of the United States are the wolf populations discussed in this thesis. Table 1 on the following page shows *Canis lupus* population numbers within the United States as of 2010.

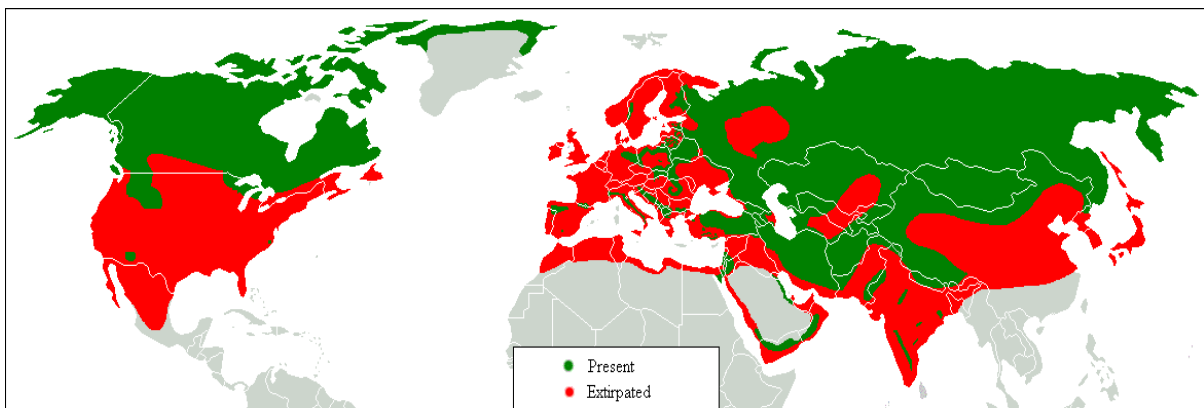


Figure 1: *Canis lupus*: Past and Present (Knocker 2007)

Table 1: *Canis lupus* populations throughout North America (U.S. Fish and Wildlife Service 2013)

Region	Number of Individual Wolves
Great Lakes (Michigan, Minnesota, Wisconsin)	3,686
Northern Rocky Mountains (Idaho, Montana, Oregon, Washington, Wyoming)	1,674
Southwest (New Mexico and Arizona)	75
Alaska	7,700-11,000
Canada	50,000 – 60,000 (Frontier Canada)

Zoology

Subspecies classifications of *Canis lupus* are difficult to make and change frequently because of contradicting data from living species (Phillimore and Owens 2006). Leonard et al. (2005b) analyzed mitochondrial DNA sequences of 34 pre-extinction wolves and found that they had more than twice the diversity of their modern relatives. There is scientific research citing anywhere from five (Nowak 1995) to thirty-two (Northern Rocky Mountain Wolf Recovery Team 1987) subspecies of *Canis lupus*, and multiple references of up to thirty-seven found on websites such as the Department of Environmental Conservation of New York State

(<http://www.dec.ny/animals/6973.html>, accessed July 18th 2011) illustrating the difficulty in identifying from which subspecies an individual represent. The initial recovery plan states twenty-four of the thirty-two subspecies of *Canis lupus* inhabited the United States prior to extermination.

Some Rocky Mountain residents' argue that the subspecies brought in from Canada and reintroduced, *Canis lupus occidentallis*, was not native, and in fact far larger and more aggressive than the subspecies that was there initially, *Canis lupus irremotus* (<http://www.mtsfw.org/gh/PhotoPage+Username=adminclient+ServiceName=WolfSpecies+Title=>, accessed March 12, 2014) . For many residents this negates the reintroduction itself as well as the competency of the federal government. However, the intent of the recovery plan based on changing trends among taxonomists, was to recover *Canis lupus* populations; not individual subspecies (Northern Rocky Mountain Wolf Recovery Team 1987).

However, subspecies classifications play an integral role in policy decisions ultimately determining the fate of *Canis lupus* despite lack of consensus. The fragmentation of *Canis lupus* populations, and subsequent inbreeding and interbreeding, is an increasingly important problem in the species' conservation. Many scientists agree and are concerned that human pressure is increasingly leading to the isolation of natural populations with a consequent loss of genetic variability and thus, an elevated risk of extinction (Bijlsma, et al. 2000; Ceballos and Ehrlich 2002; Frankham

1995; Higgins and Lynch 2001; Lande 1999; Saccheri, et al. 1998; Vila, et al. 2003). Conservation policies for wolves in North America depend on an assessment of population sizes and this can only be made when subspecies are clearly identified. O'Brien and Mayr (1991) used the gray wolf as their case example for their argument that the operational definitions of species, subspecies and populations, as well as an absence of consensus about their taxonomy, and the periodic occurrence of hybridization between species and subspecies have led to confusion, conflict, and, misinterpretations of the Act by well-intentioned government officials.

Basic Wolf Ethology

The following section discuss some of the basic physical, physiological, and behavioral characteristics of gray wolves. I relied heavily on publications by leading wolf biologists David Mech and Doug Smith (2003; 2006) as well as naturalist Barry Lopez (1978). Opportunities to study wolves in the wild has been limited prior to reintroduction, however, Yellowstone's topography of wide-open valleys has given way to many recent opportunities and subsequent discoveries regarding wolves.

There is only one breeding pair within a wolf pack and the female only bears and only one litter a year (Smith and Ferguson 2006). Gestation averages 63 days and usually results in four to seven pups in around April or May. Pups are born deaf and blind rendering them completely dependent on the pack. Wolves exhibit great patience and excitement with pups, but are also stern teachers.

Typically, *Canis lupus* survives in the wild about 7 to 10 years (Lopez 1978). Adult gray wolves are normally larger than German Shepherds, weighing between 55-130 pounds. Males are normally slightly larger than females, enabling them to better take down prey, while females seem to be faster runners and more agile in their prime. Gray wolves can develop a crushing pressure in their jaw of perhaps 1500 lbs/in squared twice that of a German shepherd. This allows them to break open bones to get at the marrow. Wolves usually travel eight to ten hours per twenty-four hour period, exhibiting great stamina. In Isle Royale wolves travel an average of forty miles a day in the winter. A Finnish biologist reported a pack to have traveled 125 miles in one day (Lopez 1978).

Within the well-defined social structure and rules of a pack, there is always movement and change. Actually, change seems to be the one constant within a pack of wolves, probably due to their remarkable ability to adapt (Lopez 1978). The pack is a wolf's lifeline, and wolves have been known to sacrifice their own lives for the survival of the pack (Smith and Ferguson 2006). Hunting in packs distinguishes wolves from other large carnivores.

Each pack has a distinct personality just as each individual wolf does (Mech and Boitani 2003). A pack usually has alpha, beta and omega members. The alphas are the leaders and the breeders. Betas are usually hunters and not much different from alphas except that they are not the leaders or breeders. Omegas typically take the brunt of the

pack's frustration, but can and do become alphas through leaving the pack or overthrowing the alpha.

Wolves travel alone or in pairs, usually in search of a new pack (Smith and Ferguson 2006). Typically, a wolf will leave the pack in search of a new one when he or she is few years old, or sexually mature. Sometimes a pack member will force a wolf to leave the pack, or, a wolf will choose to leave the pack because of social circumstances. This is risky, however, as it can be difficult to find a new, welcoming pack.

Wolves are nomadic within an established range throughout the winter (Smith and Ferguson 2006). This is when a pack is at its strongest, feeding off ungulates weakened by winter hunger. In the spring, the alpha female selects a site for, as well as builds, a den to give birth in. The den is the pack's home for the summer, and sometimes many more summers to follow. During the summer some members will leave to hunt and bring back food for the others. In harsher northern climates, a quick den is dug out of the snow as if the birth had happened unexpectedly, probably because the pack must move constantly in such unforgiving conditions.

Scientists attempt to correlate pack size with type and availability of prey, however, pack sizes vary significantly and it is not always clear why (Mech and Boitani 2003). Most pack size observations are made in the winter when the pack is nomadic and all family members are there for the hunt, but not necessarily hunting. In wolf populations that have been intentionally manipulated by humans, the size of the prey generally determines how many mouths can be fed. Smith and Ferguson (2006)

observed that wolf packs that hunt primarily deer usually have five to seven members, while packs that hunt elk range from eight to twelve and moose and bison hunters congregate in packs of 15 or more .

Wolves typically run/chase a herd of ungulates (animals with hooves) to find the weakest one in the group and ultimately strengthen the herd by preying on diseased and injured animals, as well as the old and the young (Smith and Ferguson 2006). Stronen, et al. (2007) argue that wolf predation on wild ungulates, namely elk, help to lessen the risk of disease transmission, particularly bovine tuberculosis, to cattle. In contrast to human trophy hunting where the strongest animal of the herd is killed, ultimately weakening the herd. Wolves are often significantly injured while hunting and the larger the ungulate the larger the risk of injury is to the wolf, and thus the pack. Out of 110 wolves killed along the Tanana River in Alaska in 1976, 56 had survived one or more traumatic injuries, such as skull fractures, most likely from hunting moose (Lopez 1978). A 100-pound wolf is very small compared to a 1600-pound moose.

Wolves do occasionally surplus kill, or, kill more than they can eat, and contrarily, they also follow fallow in areas with depleted food sources (Smith 2004). Surplus killing is typically done around denning time when it seems to be a way to ensure that they will have enough food, but, there is not always an obvious explanation. In 2004, the Cook pack, located just outside of McCall Idaho, was eliminated through aerial gunning for killing a total of 190 sheep in two summers. Seventy of these were killed in one night, far more than they could eat (Smith 2004). Domesticated livestock

have evolved to depend upon humans for protection and have far fewer defense mechanisms than wild animals. Domestic sheep are particularly vulnerable as the entire herd typically freezes upon attack. On the other hand, wolves have been known to follow a fallow practice in which they do not hunt in a specific area for four or five years, ultimately regenerating the prey population (Lopez 1978). Wolves have an impact on the ecosystems in which they sustain themselves.

Ecological Findings Following Wolf Reintroduction

The reintroduction of wolves into Idaho, and particularly Yellowstone National Park, has provided scientists with countless new discoveries, many of which pertain to this predators' impact on ecosystems (Ripple and Beschta 2007; Smith and Ferguson 2006). Many of the long-term implications of recent findings are still not clear and are debated (Kauffman, et al. 2010). This lack of scientific clarity exacerbates the social controversy regarding wolf population management. Generalizations regarding the impact of wolves on large ecosystems are not yet possible. Wolves are a part of ecosystems, and of course, have a large impact on them with their returned presence, but, they too are affected by a multitude of ever changing factors within these ecosystems making predictions difficult.

Smith and Ferguson (2006) argue, and most biologists agree, that wolves play a crucial role in ecosystems as "apex carnivores", meaning they are at the top of the food chain. Apex carnivores have significant effects on the life around them, even affecting

plants and soil. This is called a trophic cascade, meaning the animal affects many parts of the ecosystem, directly and indirectly.

One aspect of the trophic cascade affected by wolf presence involves the carcasses that wolves leave behind (Smith and Ferguson 2006). Wolves are unique predators because they share their kills. Their strategy is to make a kill and eat as much as they can, as fast as they can, and then leave the rest for other carnivores. By contrast, cougars and bears reach satiety then typically cover the remains of their kill with their bodies, preventing other animals from eating the remains. No less than twelve different animal species use prey killed by wolves. The large amount of food that wolves provide indirectly to other animals was underestimated by biologists before the 1995 Yellowstone reintroduction (Smith and Ferguson 2006)

Ripple and Beschta (2007) found that wolf reintroduction may be indirectly responsible for an increase in biodiversity along riverbeds. Their Ecology of Fear theory states that prey animals will change their behaviors due to fear of predation. Thus, scientists (Ripple and Beschta 2007; Smith and Ferguson 2006) believe that a fear of wolves would cause grazing ungulates (hooved animals) to spend less time lingering in riparian areas, leading to a recovery of willow and aspen trees that had been overgrazed by high populations of deer and elk. Healthy riparian zones filter out pollutants and control flooding and sedimentation throughout the watershed. Scientists have documented improvements in habitat for fish and beavers, and thus, quality of water since the reintroduction of wolves (Smith, et al. 2003, p.338). However

Kauffman et al. (2010) suggest that aspen in Yellowstone National Park might still be declining and that effects of wolves may differ throughout the park depending on local context.

Predictions about the impacts of wolf reintroduction are difficult in 2014. Reintroducing apex predators like wolves will undoubtedly play a role in changing local ecosystems, but there are many factors that contribute to these changes. Idaho's ungulate populations have declined since their all-time high fifteen years ago (Smith, et al. 2003), but Idaho Fish and Game noted that wolves did not kill as many elk as hunters between 2005 and 2009. Table 2 summarizes the average proportions of elk deaths by cause between 2005 and 2009 (Idaho Fish and Game 2010). Human harvest is still the leading cause of elk mortality and is proportionately less than deaths from wolf and cougar.

Table 2: Causes of Idaho Female Elk Mortality: Percent of Population Removed by Cause (Idaho Fish and Game 2010)

Elk Zone	Wolf	Cougar	Human Harvest
Lolo	20	3	0
Elk City	5	5	0
McCall	0	0	6
Sawtooth	4	2	3
Boise River	0	3	5
Weiser	1	0	8
Smokey Mtns	5	4	3
Pioneer	1	3	6
Salmon	2	6	5
Tex Creek	0	1	8
Island Park	0	1	17

The very recency of our understanding of some aspects of wolf biology and ethology, and especially of their direct and indirect effects on ecosystem health as an apex predator illustrates how recently attitudes about wolves have changed. Untold centuries of fearing wolves gave way to a limited, and sometimes unrealistic, understanding of their behavior. Even as the fields of zoology and ecology developed, opportunities for zoologists to observe wolves in the wild were limited due to the

effectiveness of wolf eradication and the elusive nature of wolves. The following chapter delves into the history of Western Europeans beliefs about, and behavior towards wolves in Europe and in North America after colonization.

Chapter 3. Euro-American History with the Wolf

“the wolf of neo-medieval gothic horror is all too often presented as a polarized stereotype to the alternative of modern conservationist philosophy. Exploring the changing nature of human-wolf relations is not simply an intellectual exercise, but, represents a critical component in the current polemic on conserving and perhaps even encouraging one of the top predators in the northern hemisphere”. (Pluskowski 2006, p.199)

When viewed in the context of the history of human interactions with wolves, the act of wolf reintroduction is a dramatic shift in wildlife management that represents an astounding change in social attitudes towards these predators. Views of wolves have been predominantly adversarial for hundreds of years and the continued conflicts between people over the desirability of reintroduction speaks to this long legacy of fear and animosity. Anti-wolf sentiment in Medieval Europe, and the American West today, can be viewed as a socially created construct rooted in an appeal to fear that is supported by anecdote rather than convincing empirical evidence.

This section explores the history of European and Euro-American relationships with the wolf. First, I briefly explore European experiences and social constructs regarding wolves throughout the Middle Ages by drawing from anthropologist Alexander Pluskowski (2006), Swedish biologist and anthropologist Erik Zimmen (1981), anthropologists H. Sidky (1997), and naturalist Barry Lopez (1978). This section broadly discusses how the church and state, Cartesian Dualism, and the idea of werewolves all played a role in shaping people’s attitudes towards wolves throughout the Middle Ages. Next, I explore the relationship between American colonists and

wolves drawing from historian John T. Coleman (2004) as well as Barry Lopez (1978) while focusing on folklore, predator control and the resulting emergence of a shift in paradigm in ecology.

The Church

In *Wolves and the Wilderness in the Middle Ages* (2006), Aleksander Pluskowski argues that the shift from Paganism to Christianity in early Medieval Europe was also a transition from zoocentric to anthropocentric world views, ultimately affecting how Europeans perceived and related to animals. Pagans are pre-Christian European polytheists who worshiped and continue to worship, the Divine in nature. During this time period, Christian leaders utilized, manipulated, integrated, and outlawed, specific pagan motifs to increase the spread of Christianity. One such example was when the early Church of Europe condemned the pagan practice of masquerading as animals.

It was during this time period that Christianity introduced the concept of 'evil' within a clear cosmological framework of opposing forces: God versus the Devil (Pluskowski 2006). With this shift, various animals came to personify the devil. The wolf signified human greed, and the power of evil. Sermons used the wolf as an exemplar of evil. Lopez (1978) argues that one of the most influential philosophical themes of the 1600's, Cartesian Dualism, was a product of the Church's reaction to the pagan idea that animals had spirits and did not belong to man. In Rene Descartes Dualistic philosophy, animals were considered low status and without souls. The idea that an animal had no soul gave way to a mechanistic approach to learning about them.

Animals were studied by dissecting them into parts, not by their behavior. Wolf parts were used as remedies to ailments in the middle Ages, reflecting an odd blend between Cartesian Dualism and Paganism.

The Fear

There were points throughout the Middle Ages where wolves were seen committing the dreadful crime of eating human flesh, ultimately earning them the reputation of being man-eaters (Lopez 1978). People traveling beyond the boundaries of a community feared wolves as well as outlaws. These two, wolves and outlaws, eventually came to mean the same thing; they were both seen as beyond the laws of human decency. As people permeated the land and hunted the forests, hungry wolves became more of a threat to humans. Wolves could wipe out a family's livestock in a night.

In *The Wolf: A Species in Danger*, Zimen (1981) argues that many assumed killings of human beings by wolves can most likely be attributed to wolves eating corpses. He explains that people died outside of inhabited areas during wars and epidemics and that wolves utilized these dead bodies as a food source. During the Black Plague, wolves were seen eating off of the piles of dead bodies. According to Sidky, (1997) wolves became particularly troublesome during the Black Plague because they expanded their territories into land that was once cultivated and villages that were emptied by the epidemic.

This does not mean that wolves never attacked people. Zimen (1981) notes that wolves must have grown accustomed to people, learning who was the easiest target with children especially vulnerable. Great drives were organized whenever someone was thought to have been bitten by a wolf and hundreds of wolves were killed (Lopez 1978;149). Two wolves were thought to have killed 64 people in the mid 1700's in the Cevennes Mountains of south central France. The search for the offending pair of wolves resulted in the killing of 2,000 wolves between 1740 and 1773 (Sidky 1997). The wolves were most likely wolf-dog hybrids due to their proximity to people, large size, and odd color; wolves that kill people are almost always rabid or hybrid (Lopez 1978; Pluskowski 2006; Sidky 1997).

Wolves were seen as something to be feared that was beyond human control and this lack of control scared people. This fear of wolves was based partly in reality but perpetuated and embellished by the church.

Werewolves

Werewolves, or lycanthropy, is the belief that a human and a wolf shape shift back and forth to work on behalf of the devil (Pluskowski 2006; Sidky 1997). Holding a belief in werewolves was considered sinful in early Christianity because of the connection with paganism. However, references to werewolves increased greatly in the twelfth century throughout most parts of Europe. The ability to transform humans into wolves was assigned to the Devil in the fourteenth century, making werewolves an even greater concern.

Werewolves, or lycanthropy, is the belief that a human and a wolf shape shift back and forth to work on behalf of the devil (Sidky 1997). Medieval demonologists maintained that werewolves were actually witches who magically changed themselves into wolves, closely interweaving witch and werewolf conspiracies and trials, such as the Salem Witch Trials (Sidky 1997). Both people and wolves were killed for lycanthropy, usually on the accusation of killing humans and livestock. A person might be accused if seen close in time to a wolf sighting (Lopez 1978; Sidky 1997).

Individuals accused of lycanthropy were often social misfits and criminals (Sidky 1997). The case of Peter Stubbe is an infamous werewolf trial whose story spread throughout Europe in the late 1590's. Stubbe was a serial murderer and rapist accused of countless brutal crimes, many of which were against his own family. Townspeople near Cologne Germany continually complained of body parts found strewn about the countryside. Stubbe was eventually charged with lycanthropy, for these crimes, and for crimes of killing livestock. He was put to death, as were his sister and mistress for being a part of, and witness to, an amoral life. Conversely, a person might be accused if seen close in time to a wolf sighting (Lopez 1978; Sidky 1997). In 1425, Neider Hauenstein was sentenced to death for consorting with wolves near what is today Basel, Switzerland. She was believed to have ridden them across the night sky (Lopez 1978;228).

Russell and Russell (1989) have pointed to the possible connection between rabies and the belief in werewolves. Outbreaks of rabies epidemics in wolves can

coincide with outbreaks among humans and dogs. The symptoms of rabies in wolves, dogs, and humans are very similar and in the Middle Ages rabies in humans commonly resulted in death, and still can today. Rabid animals show exaggerated response to sudden stimuli, wander aimlessly, and, become increasingly irritable and vicious. In the late stages of rabies the animal will bite anything in sight. There are numerous reliable reports of rabid wolves traveling long distances, invading villages, and attacking all humans they encountered. The horror of a crazed beast, frantically assailing people, is often amplified by the hair-raising sounds that rabid animals emit due to paralysis of their laryngeal musculature. These animals show no fear and charge relentlessly, often inflicting massive injuries and deaths.

In 1500, Spain was said to be ravaged by canine rabies and by 1586 there were epizootics of rabies among dogs in Flanders, Austria, Hungary and Turkey. In 1604, canine rabies was widespread in Paris, causing great alarm. In 1851 near Hue-Au-Gal, France, a rabid wolf bit forty-six people and killed eighty-two head of livestock in one day. In Adalia, Turkey, a rabid wolf wounded 128 people and killed eighty-five sheep during a single rampage. Europeans had not experienced a rabies epidemic, as far as we know, until this time period. Prior to the epidemic, most rabies cases were single bites from rabid dogs, and occasionally wolves. Interestingly, it was during this same time period, around the sixteenth century, that Sidky (1997) found there to be a European fixation with lycanthropy illustrated by the high number of people brought to

trial under the charge, and, by the production of no less than fourteen major treatises on the subject between 1591 and 1686.

Lycanthropy is an example of a broader phenomenon that anthropologist Phillip Stevens (Stevens 1991) refers to as the Demonization of Satanism. Both historians and anthropologists have found that this phenomenon develops in times of intense, prolonged, social anxiety. A scapegoat is created when large numbers of people feel let down, or hopeless, regarding the social institutions in which they have placed their trust. The demonology provides an explanation, and an outlet, for aggression. The demonology is embodied by a specific group of people who perpetuate this evil and must be exterminated from society. There is often a supernatural element involved and the people are associated with certain animals, ultimately dehumanizing them. In the case of werewolves, both wolves and humans were demonized; however, wolves continue to carry the burden of this human created demonization with them today.

Wolves during U.S. Colonization

European colonization had a rapid and deadly impact on the gray wolf in North America. In a mere 300 years this 300,000 year old North American native was eradicated to the point of extinction in the continental U.S. The magnitude of this decline cannot be accurately measured because of the difficulty of reconstructing precolonization population levels. Estimates for gray wolf numbers in the Western United State alone ranged from several hundred thousand to one million (Leonard, et al. 2005a; Lopez 1978).

In *Vicious: Wolves and Men in America* (2004), historian Jon Coleman argues that both folklore and property played hastened colonists' extermination of wolves. Folklore fueled wolf hatred through rituals and legends passed down through generations explaining not only how to rid an agricultural landscape of predators but also how to feel about their removal. Circle hunts and hunting competitions pushed the utilitarian defense of livestock into the realm of folklore. Americans killed wolves to safeguard domestic animals and folklore gave these killings cultural and social meanings. Wolf folklore survived with settler's property, or, their livestock, which traveled with them across landscapes and lifetimes. The need to protect property became so dominant that many men were paid to simply eliminate this predator and states began to pass wolf bounties.

The first wolf bounty law was passed in Massachusetts on November 9, 1630. The Massachusetts Court complained of the great "losse and damage" suffered by the colony because wolves killed "so great numbers of our cattle," and expressed frustration that the predators were still not destroyed in 1645 (Steward T.A. Pickett and Rozzi 2001;267). In 1669, the Virginia Burgesses enacted a law requiring the Indians in the colony to kill wolves as a yearly tribute to the villagers (Steward T.A. Pickett and Rozzi 2001;267). The last wolf was killed in Connecticut in 1837 and in New Hampshire in 1887. Thus, wolves were extinct from New England by the late 1800's after their previous abundance (Lohr, et al. 1996).

Lopez (1978) argues that the annihilation of wolves was fundamentally different than that of other species because it showed far less restraint and far more perversity. He attributes this to theriophobia; a deep fear/hatred of anything bestial, brutish or inhumane. A European wolf hunter in 1650 probably killed 20-30 wolves in a lifetime compared to an American wolver in the 1800's who most likely killed 4-5 thousand wolves in ten years(Lopez 1978). Wolverers, or men who were contracted to exterminate wolves, were hard-living men who were seen as heroes during this time. Wolverers used poison, traps or clubs, raided dens to strangle pups, or put fishing hooks in carcasses causing wolves to die from hemorrhaging; they used any means possible. Between 1883 and 1918 18,730 wolves were bountied in the state of Montana for \$342,764 of the states treasury (Lopez 1978).

Wildlife management in the early part of the 20th century was motivated to create a well-managed, park-like landscape that would contribute to the prosperity of the country. "Nature, as well as society, it was claimed, harbor(ed) ruthless exploiters and criminals who must be banished from the land" (Worster 1977;265). Predator control programs were a hallmark of the federal government's efforts to 'preserve' the wilderness from 1900 to 1920 (Schullery 1995; Worster 1977). This war against wolves, and other predators, was in response to pressure exerted on the government by powerful livestock interests and hunters' desire for reduced competition. Consequently, the National Park Service instituted predator control in the 1920's so that the gray wolf was eradicated from the continental western U.S. by the 1930's, with

the exception of a small population in Northern Minnesota (Wilson 2006). By 1931, three-fourths of the budget for the USDA Bureau of Biological Survey (now part of the U.S. Fish and Wildlife Service) was devoted to predator-control programs (Schullery ; Worster).

Coleman (2004) argued that Bureau scientists' curiosity about wolf behavior, which was motivated by the policy goal of extermination, paved the way for a more sympathetic view of the animal. Paradoxically, property and folklore, the devices used by colonists to perpetuate wolf extermination, were used to conserve wolves. In the early twentieth century, livestock owners, professional hunters, and federal bureaucrats divvied up the labor of killing wolves in the American West. Livestock owners lost their monopoly on wolf stories and hunting rituals as government wolf hunters developed their own. Wildlife biologists inched toward an ecological understanding of wolves and professional hunters transformed wolf folklore. They introduced the doomed yet heroic "last wolves" into wolf legends. These wolves were given names affording them individuality and personality that their predecessors were denied. As Coleman expresses it, wolves were respected foes, exquisite vermin. "Standing over the corpses of legendary predators, humans mourned the passing of ideals they despised in living wolves but revered in dead ones" (Coleman 2004, p.13).

Following the elimination of the gray wolf, as well as other predators, deer and ungulate populations increased dramatically leading to overpopulation, and thus, overgrazing. Attitudes about predators were re-evaluated with an increased

appreciation for their benefits. A sub-culture of conservationists emerged and gained influence. Environmentalist Aldo Leopold (1966) championed an innovative ecological perspective during this time where humans were part of, but not in control of, the biological community. In 1973, the U.S. Senate and House of Representatives enacted the Endangered Species Act (ESA) (United States Senate and House of Representatives 1973). The objective of the act, as stated in Section 2, was to address the educational, historical, recreational and scientific value of species (fish, wildlife and plants) that have become extinct or endangered because of economic growth and development. The ESA prohibits the killing of endangered species and the gray wolf was one of the first to be listed in 1973.

Coleman (2004) refers to the dramatic historical shift in American attitudes towards wolves as a 'remarkable cultural journey . . . from unanimity to ambiguity'. *Unanimity* references a part of our history where farmers and naturalists alike, worked together in ways that are now almost incomprehensibly cruel, to eliminate wolves from the land. Although rooted in a history of attempts to control and dominate wildlife, the study of wolves and other animals ultimately led to the emergence of a counterculture of conservationists which continues to gain momentum today. Today, in addition to professional wildlife scientists who are carrying out state and federal programs protecting wildlife, there are small numbers of well-educated urbanites migrating into rural settings with intentions of conservation. These people find employment that lets them work solely for this purpose, which is often frustrating to those who have lived in

the area for a few generations as these first generation migrants attempt to change local policies regarding land management practices. Current coexistence of both schools of thought leaves us in an *ambiguous* state.

Chapter 4. Idaho Today

Less than a decade after the gray wolf was listed, and thus protected, under the Endangered Species Act (1973), the U.S. Fish and Wildlife Service passed the Northern Rocky Mountain Wolf Recovery Plan, and by 1985 the US Fish and Wildlife Service mandated reintroduction of the gray wolf into Yellowstone National Park and Central Idaho consistent with the stipulations of the ESA. The U.S. Fish and Wildlife Service released 66 Canadian gray wolves into these areas between 1995 and 1996 (Smith and Ferguson 2006).

In reaction to the U.S. Fish and Wildlife Service's plan, in 1988, Idaho enacted legislation that prohibited Idaho Fish and Game from participation in most wolf recovery efforts, including the expenditure of funds for related activities. As the wolf release crept closer, members of the Idaho congressional delegations urged Governor Phil Batt to use the National Guard or State Police as a last resort to stop the reintroduction by force (Wilson 1999).

But Federal officials proceeded, not legally needing state support because the reintroduction took place on federal lands. This loss of state control on a natural resource management issue as important as wolves angered many independent-minded Idahoans. When Idaho refused to develop a state wolf management plan, the U.S. Fish and Wildlife Service circumvented the state by endorsing the Nez Perce Tribe to carry out the Wolf Recovery Program. The state's refusal to accept wolf

reintroduction, on any level, enabled Idaho legislators to sustain the support of Idaho's livestock industry, which brings in a sizeable amount of Idaho's state revenue.

Many Idahoans, including some livestock owners, supported wolf management by the Nez Perce because it enabled the state to continue its fight against the federally mandated reintroduction. Idahoans expected the Nez Perce to support wolves because of their cultural heritage, thus making Nez Perce management more acceptable. The Nez Perce were not allied with the livestock industry, therefore upsetting this powerful industry would have no financial backlash for the tribe. One livestock spokesman stated, in regards to Nez Perce management, "The state can continue to fight against the Endangered Species Act and fight the invasion of our sovereignty" (Wilson 1999). For the Nez Perce people, on the other hand, the Wolf Recovery Plan was a long awaited opportunity for cultural revival.

Wolf numbers exceeded recovery goal standards sooner than expected and in 2002 the U. S. Fish and Wildlife Service proposed to delist the species in Idaho, Wyoming and Montana along with parts of Washington, Oregon and Utah (Wilson 2006). Conservationists took them to court and had the delisting prolonged. On March 28, 2008 Congress delisted the gray wolf from ESA, returning much of the power of species management to the affected states. Then, in August 2010, the wolf was again relisted under the ESA as conservationists continued to fight for a ruling that takes into account the need for a wolf population large enough to maintain genetic variability.

Chapter 5. Nez Perce

Prior to Euro-American colonization, the Nez Perce occupied 17 million acres of land in what are today north-central Idaho, northeastern Oregon, and southeastern Washington (See appendix A). Archeological evidence indicates that peoples have occupied this area for at least the last 11,000 years. Nimiipuu is their true name and roughly translates to “we the people”. The name Nez Perce was given to them by French-Canadian fur trappers and means pierced nose in French. The Nez Perce moved with the seasons within these 17 million acres to sustain themselves hunting and gathering. With the introduction of horses in the 1700’s buffalo hunting became a source of subsistence for them.

Littell (2006) summarizes the treaties between the Nez Perce and the U.S Government in *Our Brother’s Keeper*, starting in 1805 when Lewis and Clark stumbled upon these Native Americans. The tribe offered the disoriented men and their soldiers’ food, fuel, horses, advice and guides. In gratitude for their help to Lewis and Clark, the U.S. Government entered a “peace and friendship” agreement with the Nez Perce. Following this agreement, the tribe entered treaties with the U.S. government ceding to them 5 million acres of tribal land. In return, the Treaty of 1855 was enacted, granting the Nez Perce U.S. protection of their remaining land. Less than ten years later, gold was discovered on Nez Perce Territory. It is estimated that more than 50,000 miners poured onto Nez Perce land. To justify the miners’ presence, the Treaty of 1863 was enacted, diminishing the Nez Perce Territory to the 760,000 acre reservation that still

exists today. During this time, many Nez Perce were forced to move off of their home land. Some went to the Colville reservation in Washington State and others were forced on a death march to Oklahoma. Events during this time sparked the war of 1877. Chief Joseph led many Nez Perce through Idaho, Yellowstone and Montana, a total of 1,800 miles, to escape the wrath of the U.S. army. A final battle in Montana just 40 miles south of the respite of the Canadian border sparked Chief Joseph's famous words, "I am tired of fighting.... from where the sun now stands, I will fight no more" (Eastman 2010). It was at this time that the war against the gray wolf in North America was underway as well.

The Wolf and the Nez Perce People

"I sang one of our religious songs to welcome them back. Then I looked into the cage and spoke to one of the wolves in Nez Perce; he kind of tilted his head, like he was listening. That felt so good. It was like meeting an old friend."

Nez Perce Tribal Elder Horace Axtell, taking part in 1995 wolf release (Littell 2006, p.26).

When Idaho refused to develop a state management plan, the U.S. Fish and Wildlife Service circumvented the state by endorsing the Nez Perce Tribe to carry out the Wolf Recovery Program. In 1995 the Nez Perce Tribe whole-heartedly accepted the opportunity to head Idaho's Wolf Recovery Program. This opportunity ultimately aided the Nez Perce to assert their sovereignty in natural resource management. They addressed social issues by conducting seminars in rural Idaho in an effort to help

citizens overcome fears and hostilities toward wolves. With allotted federal monies, the tribe provided compensation to landowners whose livestock had been killed by wolves and assisted federal officials in tracking, relocating, and removing wolves attacking livestock, with allotted federal monies. In 2005 the state of Idaho took over wolf management, but, governor Butch Otter signed a formal Memorandum of Agreement granting the Nez Perce the right to continue managing wolves on tribal lands.

The Nez Perce management program served as a positive role model for many tribes. It was the first time a tribe was able to take the lead role in the reintroduction of an endangered species. Much of the difficulty in managing public lands lies in determining who gets to make management decisions. Historically, Native Americans are not given the opportunity to participate in resource management despite accumulated knowledge gained through millennia of experience, or Traditional Ecological Knowledge (TEK).

TEK is a valuable component to resource management that can complement the weaknesses of science. It often presents itself as an insight into seeing the world in a different light, and it is from there that shifts in paradigm are born. The Canadian Council of Forest Ministers has already begun to integrate TEK into their resource management. Through shifts in paradigm from TEK, resource managers are trying to envision, and thus create, a “healthy forest ecosystem as one that reconciles industrial landscapes with conservation landscapes” (Davidson-Hunt and Berkes 2001, p.79).

Wilson (2006) argues that The Nez Perce hold a set of values which straddle the divide between extractive and ecological, for example, their historical practice of subsistence hunting, where only what is needed is taken and the entire animal is used. This practice assists to maintain healthy prey populations for generations of hunters to come. Practices such as these demonstrate the tribe's valuable perspective on possible alternatives to help move natural resource debates in new directions. Nez Perce officials contend that native tribes possess a longer historical perspective and a deeper sense of permanence in relationship to the land, which is incorporated into their TEK.

In speaking with a few Nez Perce individuals, many Nez Perce draw parallels between their own historical experiences and those of the wolves. Prior to European colonization, both had occupied the same land for thousands of years, and in the wolf's case, hundreds of thousands. During this time, both survived the cycles of feast and famine through communal hunting practices while living in packs and bands. At the time of colonization, gray wolf numbers were estimated at several hundred thousand in the Western United States alone. Meanwhile, the Nez Perce had a significant, thriving community. With the onset of colonization both were driven off the land upon which they depended for survival. This resulted in many lost lives, and endangerment of culture and species. However, with the return of wolf to this area, many dormant aspects of Nez Perce culture have been revived.

Chapter 6. Methods

Current human-wolf research topics generally fall into two categories: empirical studies concerned with how wolves affect ungulate populations, namely cattle and elk, for the benefit of ranchers and hunters, and, quantitative assessments of human attitudes toward wolves with the intent to improve wildlife management. The latter arguably emerged more recently due to the controversial nature of the reintroduction. La Vine (1995) surveyed 1,615 Utah residents in 1994 about attitudes toward wolves using seven questions. She found that southern, rural residents had slightly more negative views of wolves than northern metropolitan residents, and that hunters had extremely negative attitudes toward wolves coupled with slightly better knowledge. The same survey was replicated in 2003 by Bruskotter et al. (2007) to assess Utah residents' changes in attitudes and found that attitudes remained relatively stable, however, it is important to note that Utah did not have a wolf population at the time of these studies, nor do they currently. Bruskotter et al. also suggested that a proposed reintroduction into the area would most likely create divisions within the public.

Attitudinal surveys illustrate general attitude trends, but they may not *explain* the attitude, its origin, or contextual factors. In the case of wolf reintroduction, mass attitudinal surveys have not addressed types, or details of, the conflicts experienced by stakeholders regarding wolves, which can be diverse and are not limited to human-wolf encounters. In depth studies on stakeholder conflicts about wolves need to be conducted for increased insight on the human issues surrounding this animal.

Knoblauch (2005) states that focused ethnographies are increasingly common in studying contemporary society due to specialization in labor and the resulting fragmented culture. Focused ethnographies provide much needed details into people's increasingly specialized lives. A focused ethnography focuses on small elements of one's own society and presumes the ethnographer to have existing knowledge of that society. Anthropologist Keith Otterbein (1977) introduced the focused ethnography describing it as an ethnography that focuses on a cultural trait.

Today focused ethnographies are used by anthropologists, sociologists, departments of information science, engineering, and organization studies (Knoblauch 2005). These studies are characterized by focused short-term field visits, intensive audio-recorded data collection, communicative activities such as formal interviews, background knowledge, field-observer role, conservation, notes, transcripts, and coding. A greater amount of data processing is done, such as coding, due to the shorter time in the field compared to a non-focused ethnography where data is typically collected through extensive notes over a long period of time.

The objective of this study will be to clarify the context and origins of stakeholder attitudes that lead to conflicts about wolves in Idaho and to reveal any Traditional Ecological Knowledge, defined as time-tested observations shared by a group who have remained in an ecosystem (Stoffle, et al. 1999), pertinent to co-existing with wolves, through a focused ethnography consisting of the above criteria. Ideally,

this information can inform stakeholders, the public and wildlife management decisions.

As will be obvious from the preceding narrative about wolf reintroduction, several interest groups are involved. Although loosely formed and not necessarily representing highly homogeneous attitudes, ranchers, conservationists and Nez Perce Native Americans are self-organized on pre-existing ground that have differing attitudes and stories regarding their recently returned neighbor the wolf. My goal was to speak with people representing each of these groups while keeping field notes, to be a field-observer, and, to conduct audio recorded unstructured interviews with stakeholders regarding experiences, conflicts, and origins of attitudes pertinent to wolves.

Sample

This study aimed to utilize central Idaho residents living between highways 20 and 90 (See Appendix B) as its sample population. From this area, I choose three counties to focus on; Lemhi, Custer, and Nez Perce counties. Central Idaho encompasses over 9 million acres of mountainous land dedicated to the road less Frank Church-River of No Return Wilderness area managed by the Salmon-Challis National Forest. Wolves were initially reintroduced into this area, specifically Lemhi and Custer counties, because of two factors that would maximize the success of the wolves and minimize conflicts with people. First, there is a small human population. Second, the

extensive roadless mountainous territory is prime wolf habitat with a large population of ungulates.

Lemhi and Custer counties border one another and have similar demographics, as can be seen in Table 3. Both Custer and Lemhi counties rely on ranching, mining, and tourism as their main sources of income (Nov 2008). Lemhi County is approximately 90% federally controlled land and is adjacent to the 2.3 million acre Frank Church River of No Return Wilderness Area. The majority of land within Lemhi and Custer counties is mountainous and roadless, and most of the roads were developed for timbering and mining (<http://lemhcountyidaho.org/>, Nov 2008 and <http://www.co.custer.id.us/>, Nov 2008).

Nez Perce County is located in North Central Idaho and was also used as a sample area due to the larger population of Nez Perce people. The Idaho wolf recovery center, now the WERC, was recently moved up to Nez Perce County and onto Nez Perce land. This land is made up of high elevation prairies, rivers and canyons and encompasses the Nez Perce reservation, which is a total of 855 square miles and was established in 1864 (<http://www.co.nezperce.id.us/>, Nov 2008). As can be seen in

Table 3 below, Nez Perce County has a larger, denser, and somewhat more diverse population than Custer and Lemhi counties.

Table 3: Demographics for Custer, Lemhi and Nez Perce Counties (U.S. Census Bureau 2010)

	<i>Custer County</i>	<i>Lemhi County</i>	<i>Nez Perce County</i>
<i>Population</i>	4,368	7,936	39,265
<i># of Population That is white</i>	4,209	7,654	35,390
<i># of Population that are Native American</i>	27	57	2,206
<i># of people per Square mile</i>	Less Than 1	1 - 5	250 - 1000
<i>Largest City</i>	Challis: 873	Salmon: 2,961	Lewiston: 30,904

Data Collection

Upon acceptance from the IRB at WWU, my goal was to find representatives of three different groups, members of the Nez Perce tribe, ranchers, and conservationists. I initially set requirements for interviewees in terms of their local experience and experience with wolves specifically. Nez Perce participants needed to be Nez Perce Tribal Members who were involved with the Wolf Recovery Program. Rancher stakeholders were required to have had family members who had worked the same land for three consecutive generations and had had direct experience with the presence

of wolves. Qualifying environmentalists needed to be a current, active member of a pro-wolf organization. As discussed below, I was unable to meet all of these requirements because of the general difficulty of finding individuals to interview.

Participant observation during a short-term residency at the Wolf Education and Research Center, or WERC, was planned to collect ethnographic data as a field-observer. The WERC is located on the Nez Perce reservation in the town of Winchester and was developed as a part of the Nez Perce Wolf Recovery Program. I planned to make contacts, conduct interviews, and take field notes during this field visit.

Pre-Fieldwork Planning

In order to make contacts, I planned to attend meetings in the above counties with each corresponding interest group. Examples of organizations that held applicable group meetings are: The Idaho Farm Bureau, Defenders of Wildlife, and The Wolf Education Research Center that is run by the Nez Perce. My previous residency in central and northern Idaho from 2001-2007 afforded me a number of possible contacts for this study. I planned to collect data whenever possible using informal, as well as formal, interviews.

I modeled my interview approach partly after Stead et al. (2006). In a study involving fishermen and relating their knowledge to fisheries management issues, the authors found that many of the questions they developed for interviews with stakeholders were not valuable and that more appropriate questions developed as interviews progressed. Therefore, I prepared a list of questions for the interviews but,

encouraged all stakeholders to voice any and all thoughts regarding wolves, the land, and any other belief systems that might influence their opinions regarding wolves. A list of these questions can be seen in Appendix G. I received IRB approval from Western Washington University for these questions as well as allowing open-ended responses as part of the interview. I anticipated that once I made contacts, I could use snowballing, the process of gaining prospective participants from existing participants, to meet more participants. Snowballing ensures that the sample is complete as names for prospective participants eventually become repetitive. Because group interviews account for differing opinions within each interest group as well as researcher bias in individual interviews. I had hoped to establish three focus groups; one representing environmentalists, one representing ranchers and hunters, and one representing the Nez Perce.

Once participants were identified, I planned to obtain three to five individual interviews lasting approximately one to two hours from each interest group, totaling nine to fifteen interviews. All participants would be required to sign a consent form signifying their understanding of the study as well as their rights (Appendix F). Verbal explanation and verification would be used as well. All interviews would be tape-recorded and interviewees would be compensated for their time with a small token of gratitude.

I had planned to utilize three focus groups as well consisting of four to seven individual participants from respective stakeholder groups.

Revised (or Actual) Field Methods

Conducting focus groups turned out to be infeasible due to Idaho's large size and sparse population, ultimately requiring six hundred miles of travel to reach eight formal interviewees meeting all of the stakeholder requirements. Snowball sampling was used and the sample did become saturated, even though the total number was small. I knew this when interviewees recommended that I speak with people I had already interviewed. During this process I interviewed 5 additional people who did not fit into the pre-established stakeholder requirements. Although it was not my intent I essentially ended up with what might be considered a key informant interview sample.

Ultimately, I conducted eight formal, unstructured interviews with key informants and five formal interviews with non-stakeholders. I had three formal interviews with ranchers, three formal interviews with conservationists, and, one formal interview with a Nez Perce man who was a public spokesperson for the tribe specializing in natural resource management, one formal interview with a Nez Perce wolf biologist, and several informal interviews with people working on Nez Perce wolf recovery. I also found that it was best to not use the pre-established questions in a rigid way because interviewees would guide the interview in the direction they saw most appropriate. This turned out to be a benefit to the study because, their choice of topics provided more context on their values and concerns while they still addressed most of the questions naturally. Allowing interviewees to discuss what they felt was

most important also meant that length of times for interviews varied between one to three hours.

To collect data I traveled to Idaho twice, for a total of 5 weeks, throughout the winter of 2009/10. On my first trip, I stayed in Winchester at the Wolf Education and Research Center (WERC) located on the Nez Perce reservation for three weeks. My second trip was two weeks long and involved extensive travel throughout the state. I started in McCall, traveled to Boise, then Pocatello and Idaho Falls, and finally, up to Challis.

The WERC is a wolf education program that was started while the wolf was under protection of the ESA. The federal government required that the Nez Perce management plan contain an educational component. Accordingly, The Nez Perce agreed to lease tribal land to the WERC in order to fulfill this educational component of wolf recovery.

The relationship between Nez Perce Tribal members and the WERC is, and always has been, tense due to land use issues. The WERC is located on historical tribal hunting grounds and Nez Perce access to tribal lands continues to diminish with the effects of 'checkerboarding'. Checkerboarding, or what has essentially been the dispossession of Indian land in piecemeal fashion, creates a checkerboard appearance on maps in Indian territories', ultimately claiming over 90 million acres of Indian treaty lands, and thus created many problems for Indian nations which continue today (Fletcher 2006, p.40). The Nez Perce prohibits the WERC from building permanent

structures because it decreases the value of the land. This, however, makes life at the center challenging with heavy snow loads and sub-zero temperatures.

Nez Perce tribal members have worked for the WERC but white people predominantly run it and there seems to be a cultural/communication barrier. The wolves at the center are given Nez Perce names in a traditional Nez Perce naming circle, illustrating a desire to connect with the Nez Perce culture. Some Nez Perce tribal members refer to the wolves at the center as “their wolves” reflecting the Nez Perce belief that wolves belong to the Nez Perce people.

I stayed at the WERC for three weeks in December 2009. The WERC was kind enough to house me in a makeshift teepee with a wood stove on the site just outside of the wolves’ enclosure. The WERC has two enclosures housing two packs of wolves; one is five acres and the other is twenty acres. Each enclosure is surrounded by two, side-by-side, ten-foot electric fences. Every morning one of the three staff members is required to do an enclosure walk. They either walk in between these two fences or inside the actual enclosure with the wolves, to ensure that enclosure is still intact and all of the wolves are healthy. These walks are not open to the general public. The walks usually took two or three hours. Sometimes certain wolves would show themselves and be social and sometimes they would not. During the walks, I had a chance to pick the brains of three people, one of whom was a wolf biologist who had been a part of the WERC for 10 years. I thus received a crash course on wolf behavior,

as well as human involvement at, and around, the center including their relationship with the Nez Perce.

Following enclosure walks I would usually drive into Lapwaih, the hub of the Nez Perce reservation, and connect with people there. Unfortunately, I was only able to formally interview one man of Nez Perce heritage who had also been involved in the Wolf Recovery Program. I cannot divulge the particulars of his involvement as I would disclose his identity because he is a well-known public figure. I also formally interviewed three non-Nez Perce people who were integral in the development and implementation of the Nez Perce Wolf Recovery Program. Unfortunately, I was unable to use these interviews for my data as the individuals were not Nez Perce.

Following these interviews I came to learn that I needed a permit in order to continue interviewing Nez Perce people. I submitted a permit, however, it took well over a month before I received confirmation to proceed with my study and by that time I had finished my fieldwork. The permit was a simple form inquiring about my background and research and required a thirty-five dollar fee. I did receive permission to conduct my study and considered, but eventually decided against, returning to the reservation to interview more people of Nez Perce heritage. I had already spoken with many of the people involved with the Wolf Recovery Program and the Nez Perce tribal members who were involved had been interviewed before and written about in newspapers and articles that I have access to and have utilized in this thesis.

My second round of fieldwork took place in March of 2010 and lasted two weeks. Snowball sampling seemed to happen naturally; as I spoke with people I began hearing the same names over and over again, even after already interviewing them. This was definitely a plus to Idaho's small population, and the minus being that it made focus groups close to impossible to arrange. I did make one contact that was more through luck however. While at an alternative grocery store in Bellingham, Washington I met an Idaho rancher and his wife who were there promoting their beef because of the sustainable practices they have instituted on their ranch. Later, this turned out to be a very interesting interview and in many ways, could even shed light onto a weakness of snowball sampling in that many influential people, whose attitudes differ from those of the norm, can be overlooked in snowball sampling because they are not a part of the mainstream group by choice, or somewhat of an outlier. Due to the general independent nature of Idahoans, outliers seem as though they would be important.

I started the second round in McCall, Idaho where I interviewed one rancher and one wolf biologist working for the Nez Perce tribe. I then drove to Boise where I interviewed three conservationists working on wolf recovery issues and spoke with various people about wolves. I then drove to Pocatello, Idaho and interviewed another conservationist. Next I headed up to Idaho Falls where I interviewed the rancher I had previously met in Bellingham and finally I ended my trip with an interview with a rancher in Challis. Throughout the month of January 2010, I formally interviewed

three ranchers, four conservationists and one wolf biologist working for the Nez Perce tribe.

Chapter 7. Data Processing

This thesis quantified qualitative data collected through semi-structured, recorded stakeholder interviews to explore human conflict surrounding wolves. Categories were broadly established prior to interviews. As interviews progressed, themes and main points of interest emerged. I choose one interview per stakeholder group based upon richness and extensiveness of interview to transcribe and then fully established themes seen in Table 4. I then listened to each interview and tracked the number of times interviewees mentioned something that would fall under one of the established categories. The resulting data tracked the frequency of specific types of conflict pertinent to three different interest groups concerning issues about wolves and wolf management.

Category I: Non-Violent Human-Human conflict

The first category in the spreadsheet tracked interviewee comments on non-violent human-human conflict pertaining to wolves and their management. Human-human conflict included conflict between individuals as well as organized groups such as government and non-government agencies. There were two subcategories within the human-human conflict category; use of tactics and personal disagreement.

The first sub-category of this section took into account anytime an interviewee mentioned the use of non-violent tactics, such as litigation, used to fulfill wolf management objectives. These tactics could have been utilized by an individual, or organization, opposing the interviewee, or by the interviewee and their affiliated

organization. This section refers to action oriented, non-violent, human-human conflict. An example would be a conservation group challenging ESA rulings affecting wolf management in federal courts.

The second sub-category in non-violent human-human conflict counted the number of times interviewees expressed distaste or disagreement with a group or individual regarding their stance or approach to wolves and their management. Perspectives on wolf management often represent broader land management issues affecting people's livelihoods as well as quality of life. An example of this might be a rancher expressing distaste for the way in which conservation groups want to create land reserves that do not create capitol, but instead, places for wolves to roam.

Category II: Violent Human-Human Conflict

The second category counted the number of violent human-human conflicts, both verbal and physical, that interviewees indicated they had experienced because of their stance on wolves. The first subcategory of this category counted the number of times an interviewee was verbally harassed. Verbal harassment was a physical threat to personal or property safety. The second subcategory was actual violent act perpetrated against an interviewee or their property because of their stance. I tried to account for each violent instance only once, even when interviewees would revisit the same incident multiple times.

Some interviewees spoke more about violent human-human conflict than others did, but not necessarily because they had experienced more harassment. If a single

instance of violence became repetitive within an interview I tried to only account for it once. Contrarily, some interviewees only subtly referenced the violence that they had experienced by saying things like “my family and I’s safety was in jeopardy; that was a very scary time”, but did not offer specific accounts. This was the only subcategory tallied in this manner. The final number would have been higher had I counted each time that violent interactions were mentioned, even if they referred to the same instance. This difference in treatment does not affect the validity of my findings, because it biases the tallies in a direction that does not support my hypothesis. In retrospect, I would have added a subcategory called “Human/Human Conflict: Mentioned Violence”.

Throughout my fieldwork I ran across numerous people, whom I did not formally interview because they did not meet the requirements, but who reported experiencing verbal and/or physical violence from other people because of their stance on wolves. These anecdotes gave me the impression that violent human-human conflict surrounding wolves is much more prevalent than I was able to account for. It might be possible to systematically document such instances through researching arrest records, but I did not attempt this.

Category III: Human-Wolf Conflict

The category of human-wolf conflict had six subcategories. The first two categories counted how many times interviewees mentioned a wolf-human conflict, and how many times there was an actual conflict. The distinction between these two

categories was intended to illuminate the difference between actual conflict and interviewee focus on conflict, as human-wolf conflict often gets blown out of proportion. In order to code this I attempted to account for the actual conflict only once under the actual conflict subcategory, and each time it was mentioned thereafter was accounted for in the mention of conflict subcategory. I am sure that there is a degree of error within these subcategories as I could not go back and ask interviewees to clarify small details like these while I was transcribing. Also, I was the only coder, so I did not have another perspective on the interviews to check my work.

The third subcategory is mention of property damage and the fourth subcategory is actual property damage. These subcategories mimicked the intention of the first and second subcategories; to find a distinction between actual property damage and interviewee focus on property damage. They also presented the same challenges while coding.

The final two subcategories are relatively self-explanatory, counting the instances where a human killed a wolf and where a wolf attacked or killed a human. These numbers are of course speculative, as I did not research the events mentioned by interviewees to confirm or negate veracity.

Table 4: Results of Coding interview content

CATEGORIES	CONSERVATIONISTS				RANCHERS				N.P.	TOTALS
	A	B	C	Totals	A	B	C	Totals	A	
HUMAN/HUMAN CONFLICT: NON-VIOLENT										
Use of tactics (i.e. litigation)	39	0	3	42	13	0	15	28	3	73
Personal Disagreement	17	7	7	31	20	3	16	39	7	77
<i>Totals</i>				<u>73</u>				<u>67</u>	<u>10</u>	
HUMAN/HUMAN CONFLICT: VIOLENT										
Verbal	1	1	3	5	6	2	2	10	1	16
Physical	0	0	1	1	7	0	0	7	1	9
<i>Totals</i>				<u>6</u>				<u>17</u>	<u>2</u>	
<i>Total Human/Human Conflict</i>										175
WOLF/HUMAN CONFLICT										
Mention of Conflict	0	1	0	1	1	0	0	1	0	2
Actual Conflict	0	0	0	0	0	0	2	2	0	2
Mention of Property Damage	0	1	1	2	7	0	10	17	3	22
Actual Property Damage	2	3	3	8	5	0	13	18	0	26
Human killing wolf	0	0	0	0	1	0	7	8	3	11
Wolf attacking human	0	0	0	0	0	0	1	1	0	1
<i>Total Human/Wolf Conflict</i>										64

*important to note that instances recorded are not necessarily acts perpetrated against interviewees. These numbers represent people's experiences and perceptions regarding wolves and I did not independently verify the reported incidents.

Chapter 8. Results

In the following section I first discuss findings confirming the hypothesis that human-human conflict about wolves is more prevalent than human-wolf conflict, including property damage, as well as any notable trends in the data. Then I will discuss, in detail, some of the more powerful formal interviews to provide an in-depth perspective on conflicts experienced by stakeholders, illuminating any pertinent Traditional Ecological Knowledge. Traditional Ecological Knowledge will be defined as time-tested observations that are shared by a group who have remained in an ecosystem (Stoffle, et al. 1999).

Human-Human Conflict versus Human-Wolf Conflict

As predicted, I found human-human conflict about wolves and their management to be more prevalent than human-wolf conflict, including property damage. This is depicted below in **Error! Reference source not found.** as a pie chart. Interviewees mentioned human-human conflict about wolves, without prompting, 175 times and mentioned human-wolf conflict 64 times.

Also, it is important to note that the subcategory “Human/Human Conflict: Violent” was tallied differently than all of the other categories. I only recorded each specific instance once, as opposed to counting the number of times instances were mentioned as was done in all other subcategories. Thus, Human/Human Conflict: Violent has been underestimated in this study. Also further supporting this thesis is the fact that there were four subcategories under the Human/Human Conflict category

compared to six subcategories under the Wolf/Human category. These choices were thus skewed to negate, rather than support my hypotheses. However, as you can see below in **Error! Reference source not found.**, Human/Human Conflict comprised 73% of all conflict surrounding wolves.



Figure 2: Pie chart depicting types of conflict surrounding wolves

Below, **Error! Reference source not found.** and **Error! Reference source not found.** are breakdowns of each category of conflict by percentage of stakeholder group. Figure 3 illustrates Human/Human conflict and Figure 4 illustrates Wolf/Human conflict. Ranchers reported experiencing more conflict aimed at them, even if by other ranchers, by people than did the other stakeholder groups and also reported more experiences involving problems caused by wolves.



Figure 3: Human/Human Conflict by stakeholder group.

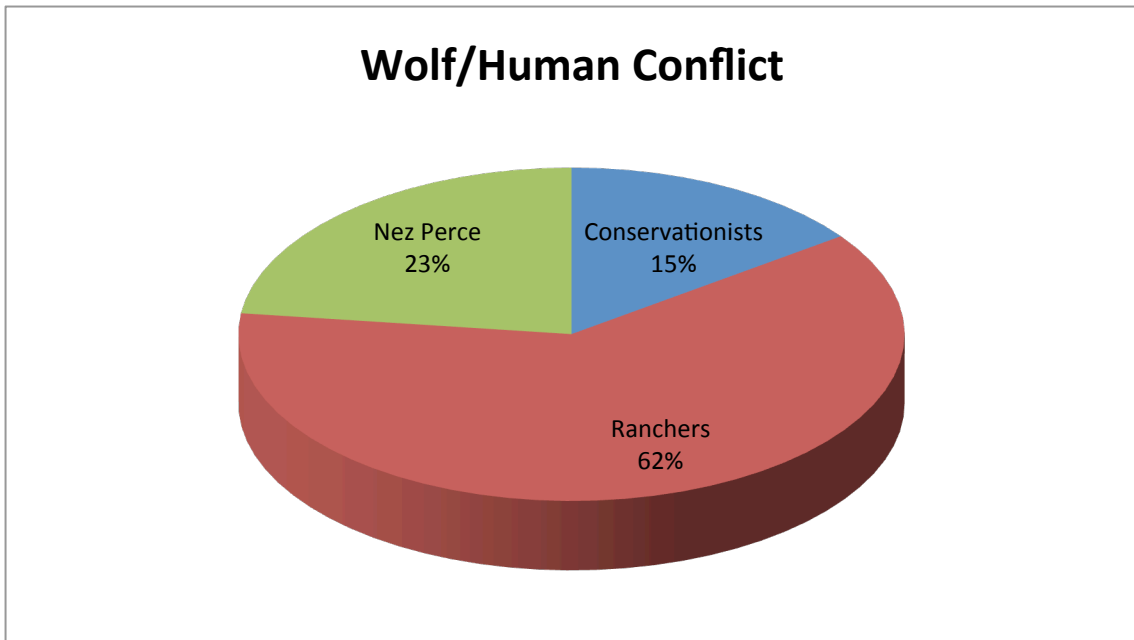


Figure 4: Frequency of reports of Wolf/Human Conflict by stakeholder group.

Table 5 below is a breakdown of averages and percentages for each subcategory relative to each stakeholder group. Conservationists reported the most non-violent Human/Human conflict at forty-three percent, though ranchers were not far behind. Ranchers reported fifty-eight percent of violent Human/Human conflict and sixty-two percent of Wolf/Human conflict.

Table 5: Averages and Percentages of Data

CATEGORIES	CONSERVATIONISTS		RANCHERS		NEZ PERCE		TOTAL — X
	\bar{X}	%	\bar{X}	%	\bar{X}	%	
HUMAN/HUMAN CONFLICT: NON-VIOLENT							
Use of tactics (i.e. litigation)	14	58%	9.3	38%	3	4%	26.3
Personal Disagreement	10.3	40%	13	51%	7	9%	30.3
<i>Totals</i>		43%		39%		18%	56.6
HUMAN/HUMAN CONFLICT: VIOLENT							
Verbal	1.7	31%	3.3	63%	1	6%	6
Physical	.3	11%	2.3	78%	1	11%	3.6
<i>Totals</i>		21%		58%		21%	9.6
<i>GRAND TOTALS</i>		39%		43%		18%	66.2
WOLF/HUMAN CONFLICT							
Mention of Conflict	.3	50%	.3	50%	0	0%	.6
Actual Conflict	0	0%	.7	100%	0	0%	.7
Mention of Property Damage	.7	9%	5.7	77%	3	14%	9.4
Actual Property Damage	2.7	31%	6	69%	0	0%	8.7
Human killing wolf	0	0%	2.7	47%	3	53%	5.7
Wolf attacking human	0	0%	.3	100%	0	0%	.3
<i>Total Human/Wolf Conflict</i>		15%		62%		23%	24.8

Error! Reference source not found. depicts conflict by stakeholder group. The bar graph that follows, Figure 6, depicts experience or knowledge of acts of violence, broken down by stakeholder group. It is important to note that in each case Nez Perce numbers were multiplied by three because there was only one interview to draw from where as there were three interviews with ranchers and three with conservationists.

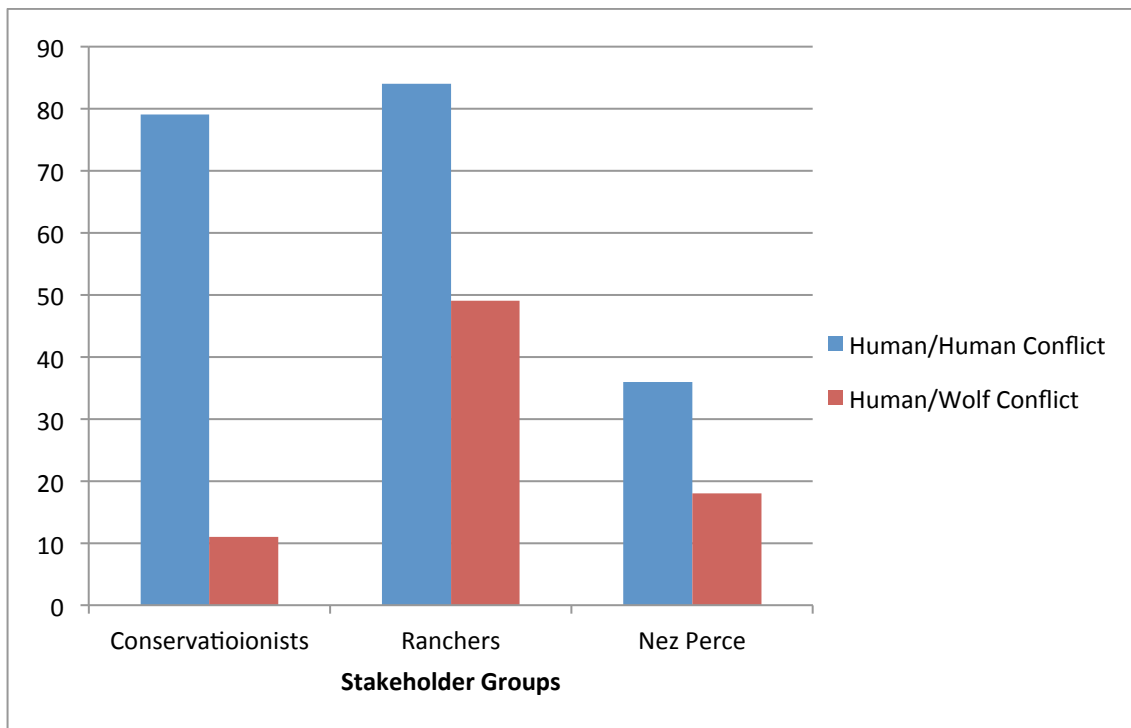


Figure 5: References to Human/Human Conflict versus Human/Wolf Conflict (Note: numbers for Nez Perce multiplied by 3 to create comparable scale.)

Error! Reference source not found. depicts the number of verbal or physical acts of violence used against interviewees by other humans because of their stance on wolves. Within the seven interviews conducted there were 25 instances of violence.

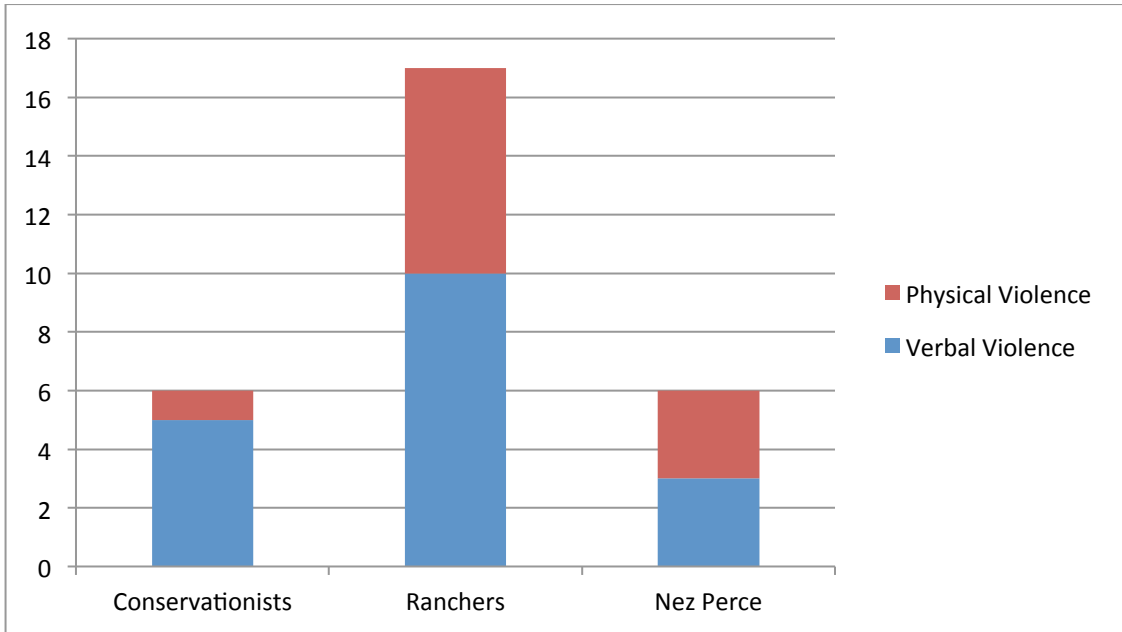


Figure 6: Number of instances interviewees' experienced verbal or physical Human/Human violence because of their stance on wolves.

As noted earlier Figure 6 is a representation of specific instances of violence reported by an interviewee; in other words, each distinct instance was only counted once, regardless of how many times the interviewee mentioned it. This was the only category that did not account for the number of times interviewees mentioned a theme. As can be seen in the above data, Ranchers do experience the most conflict. Seventy-five percent of the Wolf/Human conflict mentioned pertained to property damage, or cattle. Unfortunately losing cattle to wolves is often difficult to prove due to a lack of evidence, and is consequently frustrating and controversial for ranchers. Conversely, reported attacks on cattle may be exaggerated, or even fabricated, if ranchers who lose cattle for unknown reasons, and who do not like wolves, blame lost cattle on wolves. I was only able to base this study on what interviewees told me. I did not have a chance to confirm

cattle lost to wolves, although a handful of instances in this study were reportedly eye witnessed by ranchers. Thus, actual property damage accounted for only 9% of all conflict. Nineteen percent of the Wolf/Human Conflict accounted for in this study was humans killing wolves to protect cattle. In other words, Wolf/Human conflict included humans acting violently against wolves.

Interviews varied in length from one to three hours ultimately affecting how many times themes were mentioned. This study is a representation of how, and the degree of, conflict manifesting among humans. I feel that varying lengths of interviews allowed interviewees to present an accurate, individualized, full picture of their experience to me. Stakeholders experiencing more conflict were able to express that.

However, this study shows that there is obviously far more at play here than wolves depredating cattle as Human/Human conflict made up seventy three percent of all conflict. The following summaries of stakeholder experiences drawn from the interviews aim to add depth to this human element.

Stakeholder Experiences

The quantitative data presented above confirms the hypothesis that conflicts between people about wolves are more prevalent than conflicts between wolves and people, including property damage. The conflicts that my interviewees expressed having with other people about wolves generally had to do with perceptions on how land should be managed, which are long standing conflicts of interest. Resource management is a cultural practice determining who has access to resources. Cultural

survival or decimation is often determined by how land is utilized. The reintroduction of wolves marks a dramatic shift in the dominant cultures' ecological perspective. With this shift in resource management the cultural ways in which people have been accessing the land must shift as well, and with this shift comes conflict.

In the following sections, five of the seven interviews are summarized and excerpts given in an attempt to explain stakeholder perspectives and experiences in as non-biased a way as was possible. The intention is to illustrate what types of human-human conflicts about wolves are occurring. Two of the three conservationist interviews are summarized. The first interviewee, who worked for a group trying to establish sustainable wolf management, discussed some issues that arose in dealing with an agency, Idaho Fish and Game, that had an anti-wolf stance. The second conservationist interview discusses one woman's work to eliminate conflicts between ranchers and wolves, as well as between ranchers and conservationists. Two of the three interviews with ranchers were summarized; one rancher was anti-wolf and the other was pro-wolf. The pro-wolf rancher shared some Traditional Ecological Knowledge with me as well. Finally, the Nez Perce interview was summarized, offering a perspective that is a bit removed from direct conflict

Conservationists

There is still very much an anti-predator attitude in Idaho so we go back and forth on this issue. Ultimately, we think in the big picture we've won; we've got wolves. We've won the battle and now we want them to like it. I mean we've got so many conservation issues here. The fact that we have a species that's been de-listed and is thriving in Idaho,

and we just don't like how they are being handled on an individual level, or even a pack by pack basis, is not significant ecologically. But, because wolves are iconic, it's a great opportunity to do things right. To reconsider, when you're reinstating and reintroducing a keystone predator like wolves, the opportunity for learning and engagement of the public and for scientific research and for just a more holistic planning are tremendous. So, it's frustrating to see this opportunity being squandered.

-A voice representing Idaho Conservation

Dan, a man affiliated with the non-profit Idaho Conservation, expressed considerable frustration about his dealings with the state of Idaho and Idaho Fish and Game on wolf management issues. He said that in his role as a part of Idaho Conservation, he assisted the state in developing an appropriate management plan, complete with wording, when the State struggled to do so because of their motivation to delist the species. Once wolves were delisted, and management authority was returned to the state, the state and Idaho Fish and Game both denied Idaho Conservation the ability to take part in management decisions. Dan cited this severing of the partnership as just one example of the many ways in which Idaho State and Idaho Fish and Game have proven themselves incompetent to manage a viable wolf population within the state. He attributes this to the continuation of an anti-wolf attitude, even once they took over legal responsibility.

The non-profit had suggested wolf viewing as an income generating activity. Dan said, "People love it. They love tracking them and knowing what's going on. It's like a wolf soap opera." Prior to the August 2010 re-listing of the wolf as an endangered species, Idaho had state control of wolf management and allowed a state-wide wolf

hunt for the 2009-2010 hunting season. Dan proposed that the state set aside 10% of its land for wolf viewing activities. The other 90% would continue to be wolf hunting zones. He argued that it would be a good control experiment to find out what would happen with elk and livestock depredations in these areas.

Dan, and the membership of Idaho Conservation, felt shocked and defeated when Idaho Fish and Game refused to consider their ideas on wolf management, ultimately deepening the division between these two entities. According to Dan, Idaho Fish and Game explained to him that they had already had their control experiment, complete with two categories: the first category was the previous ten to fifteen years of no wolf hunting, and now, the second would be, to have wolf hunting everywhere. There was no reason to set it up as an experimental design managed with different zones. The second thing Dan remembers hearing from an individual at Idaho Fish and Game was, “we are the Department of Fish and *Game*, not Fish and *Wildlife*. If your members want to have a Yellowstone-type experience, tell them to keep driving to Yellowstone”. For Dan, these comments clearly illustrate the anti-wolf attitude adopted by many Idaho Fish and Game officials, which he finds a discouraging thing to see in the agency that is supposedly responsible for sustainable wolf management within the state. Dan seemed to simply bite his tongue and turn the other way on many wolf issues due in part because Idaho Conservation focuses on all of Idaho’s natural resources, not just wolves.

Building Bridges with Ranchers

Jen, a Conservationist interviewee, works for Defenders of Wildlife, a national non-profit based in Washington D.C. dedicated to protecting wolves in their natural habitat (http://www.defenders.org/about_us/where_we_work/idaho_office.php).

Defenders of Wildlife is unique in that it has devoted extensive resources to working with ranchers in finding non-lethal ways to stop wolf depredations, and they have experienced some success. Over ninety percent of Northern Rocky Mountain ranchers who are affected by wolves seek compensation from Defenders. In the past twenty-three years they have given 1.4 million dollars, allocated as a part of their budget financed by members, to ranchers for livestock killed by wolves. According to their website, "This program helps to reduce political opposition to wolf recovery by shifting the economic burden of livestock losses from the ranchers to wolf supporters."

Initiating relationships between pro and anti-wolf groups under the common goal of stopping wolf depredations is a major strength of the program. On September 10, 2010, Defenders of Wildlife livestock compensation program shifted into a supportive role for states as states began their own federally initiated and funded compensation programs, easing the cost for Defenders of Wildlife.

Defenders of Wildlife claim that wolf depredations account for less than one percent of livestock losses, which includes confirmed, unconfirmed, probable, possible, and improbable depredations. The USDA has similar findings (National Agricultural Statistics Service and Agricultural Statistics Board 2011). These terms simply refer to

the likelihood that the animal was killed or attacked by wolves based on findings from an investigation done by wildlife biologists. These investigations have been controversial because it can be difficult to know for sure if wolves killed the animal. Defenders also researches tactics that minimize livestock depredations such as, for example, the most effective ratio of dogs to number and type of livestock to keep wolves away, as it is not always financially possible, or even effective, to have a person continually guarding livestock. They also install “turtle fladry night corrals,” a relatively new technique that utilizes electric flagging, which has been successful thus far in deterring wolves.

Jen, said “Now we’ve got 3rd, 4th, and I think even one 5th generation rancher in Idaho, gosh, all over the Rockies, that are going public saying these methods work.” It has taken some time to get to this point, and assisting livestock owners in their acclimation to wolves is a slow process in comparison to the modern speed of life. It requires patience and perseverance and not all livestock producers are open to working with Defenders of Wildlife.

When Jen first started working for DOW’s compensation program many of the farmers and ranchers wouldn’t even return her phone calls, but the compensation method became a good way for her to get her foot in the door and begin relationships. When referring to one man she has been working with, Jen said, “He does not like wolves. He probably never will, although I have actually heard him call them beautiful before. He has stood up in front of a crowd of his peers, Idaho Wool Growers, and told

them that they can coexist with wolves, as long as we can manage them. We might disagree a little bit about how to manage them, but as long as we can manage them he feels that we can coexist. That was huge.”

Jen loves working with the ranching community. She commented, “Honestly, I’d rather work with ranchers, or farmers, anybody that’s working with land. They’ve got their feet on the ground and have a certain strength about them that I think is really missing from what most of us get to have on a day to day basis. Good community to work with. We have a lot to learn from them.”

Ranchers

Joe and his family had had little experience with wolves prior to the reintroduction. He, and others in his community, had seen, and heard, what they thought were lone wolves prior to 1995. Joe felt confident that the wolves that were in his area initially were smaller and less aggressive than the wolves that are there now. “If there were local Rocky Mountain wolves, there aren’t anymore,” he stated.

As we gazed out the back window of his home, he pointed to the exact location where wolves were first released; just past his grazing cattle and beyond two mountain peaks. Six years after the reintroduction, he lost his first calf to wolves. At first, the pack was just a male, female and five pups. The next year there were twelve, and the following year the pack had increased to eighteen wolves. That year he saw wolves every other day. Joe suggests that the reason the pack started to prey on his cattle eight

years after the reintroduction was because by that time they had depleted the local deer and elk populations.

Joe and his family have been taken aback by the violence of a wolf kill. “It’s disturbing” he said. Lately, the wolves have been going for adult cattle, as opposed to the calves. This is unusual, and he thinks it’s because the adults turn around to fight. When they turn to fight, a wolf latches onto the cow’s nose and another onto its tail, both rip and pull while others move in to gnaw at the cow’s flanks. It appears as if the cow is eaten while it’s still alive; a slow, brutal death that ranchers do not like to witness.

Joe agreed that more livestock are lost to disease and weather than to wolves, but he said “This doesn’t make the loss any easier to bear.” His profit margin is small and every little bit hurts. “You just hope you make money more years than you lose money”. One year he lost eleven animals, five of which just disappeared. “Typically you only find one in six wolf kills because they drag the calves to their dens.” As a result of these attacks, Joe has observed what he described as “a tremendous change in the behavior of his livestock.” Relying on humans for protection, now the cows bed down around their cabin, often coming in from very far away. “They’re scared,” he confirmed.

Joe and his family have had to change their own behavior as well. When a pack is stalking their cattle, Joe or his son are out on the range every day at both dusk and dawn. Once the wolves start moving in at night, there isn’t much they can do. “They’re smart,” Joes says, “Catching them out in your field is one thing, but trying to kill one is

hard to do.” Joe legally shot and killed one wolf that was stalking his cattle, and he has fruitlessly shot at many more. He requested to have this pack taken out while wolves were still protected under the ESA, but according to Joe, U.S. Fish and Wildlife Service declined saying they didn’t want to shoot pups. Joe thinks they were dodging harassment from wolf advocates arguing against killing wolves on public lands.

The ESA has a bad reputation with ranchers. Joe said, “It’s a tool the Federal Government uses to destroy and transform the west.” Agriculture is the number one industry in Idaho. “Every dollar we make turns into seven for the state of Idaho,” he added. “Why would you create so much strife? We don’t need wolves for healthy ecosystems. Somewhere down the line the government has to put production back on the line.”

In 1993 a man from Portland Oregon working for fisheries and under the stipulations of the ESA to protect Chinook salmon runs, came to survey Joe’s summer grazing land. The land was a grazing endowment leased to Joe by the state in conjunction with the ranch he purchased in the 1980’s. The man from Portland surveyed Joe’s land for two days. Joe said, “He didn’t seem to know a thing about cattle.” Yet, “with the stroke of a pen” as Joe put it, this man took away 30,000 acres, or two thirds, of Joe’s public grazing land. Joe’s diminished access to land forced him into real-estate and land development in order to supplement his income and continue ranching. Two years later wolves were reintroduced only a few miles away, as the crow flies, from his house, further intensifying his difficulty in making a living as a rancher.

Joe readily admits that wolf activists create far more problems than do the wolves themselves. One man reportedly told Joe, 'I am going to do everything I can to ruin you.' Sometimes activists howl at his grazing cattle with the intention of spooking them, which works. One night someone opened one of the gates to an enclosure where his cattle were grazing and scared them out onto the highway. He recognized the car that was parked nearby and was almost positive he knew who did it. After his daughter and son-in-law were followed home one night from Joe's ranch, they decided ranching was not for them. Joe said, "The people are far scarier, they know what they are doing, wolves are just animals doing what their instincts drive them to do."

Joe wants wolf lovers to accept the fact that you have to control the wolf population. He advocates poisoning wolves that are killing livestock and supports Wyoming's shoot on sight policy saying, "Even if we were able to shoot at every wolf we saw, it wouldn't make a dent in the population."

Ranching and Traditional Ecological Knowledge

I don't think there are good and bad animals, just good and bad managers.

-Anonymous rancher from Beyond the Rangeland Conflict: Toward a West That Works, by Dan Dagget (2000)

Many ranchers have acquired traditional ecological knowledge by working the same land for their entire lives and inheriting skills from previous generations that worked the same, or similar, land before them. For people who live on the land for multiple generations, maintaining the health of the land is of the utmost importance

because it ensures their family's continued survival. The land becomes a part of them and sometimes they can read its changes more holistically than a visiting scientist, as one rancher explained to me in an interview.

Bev's family has been ranching on the same Idaho land for 140 years, making this her family's ninth generation on the land. When first settling, their ancestors lived in caves on the property. Bev's family refers to oral and written accounts left by their ancestors, regarding the condition and patterns of the land, how it was managed, and notable environmental changes. Equipped with this knowledge, Bev has noticed the disappearance of important land management practices among her neighbors, such as the ability to smell a handful of earth and detect which nutrients it needs.

She told me a story of a scientist who visited their property one day to address a small section of a decimated riparian zone along the river on their property. The scientist immediately thought it had to do with cattle or other animals. She told him to come back on any weekend and he would see that it was actually people decimating the riparian zone because that particular spot received a lot of human traffic on the weekends. The scientist was only coming by on weekdays though.

Today, Bev uses her family's traditional ecological knowledge coupled with a system called holistic management, developed by the non-profit organization Holistic Management (<http://www.holisticmanagement.org/>). This non-profit organization is dedicated to managing land resources in partnership with nature, to ensure the continued and improved health of the land. In our interview, Bev discussed what she

believes to be the integral role of wolves for healthy land and livestock management, although, she has never had any wolf encounters on her high desert ranch just southwest of Yellowstone National Park.

Bev began the interview by referring the large number of buffalo that once roamed across the western United States. Wolves hunted buffalo, which forced these ungulates into constant movement, protecting the land from being overgrazed and preventing riparian zones from becoming muddy bogs unable to support plant and animal life. Wolves played a vital role in maintaining clean water and healthy habitat.

Bev's historical account coincides with Holistic Management's theory that with frequent movement, cattle, like buffalo, can't eat enough grass in one place to damage the root systems of plants. Strong roots usually make for strong plants, helping to create firm land, and thus, clean water. Cattle also add, and work in, their own natural fertilizer with their cloven feet. The land is healthier with cattle, or other ungulates, as long as the animals don't overstay their welcome. Bev and her husband now move their cattle between small grazing plots on a daily basis, replicating how their cattle would move if there were wolves in her area.

Bev's conversation strongly showed her holistic interests in ecology and thus the health of the land and water. For her, talking about wolves also included talking about beavers, because beavers are another important part of the equation for clean water. An old family book written by Bev's relatives documents the extensive beaver dams along the river that runs through their property. Bev says they haven't seen beavers

since fur trapping wiped them out last century. She believes beaver dams played a large role in adding structure to the river in the past. Dams slow and control the flow of water, which significantly reduces erosion.

Because Bev's family has not had any wolf encounters, people supporting an anti-wolf stance, especially other ranchers, use this as an argument against her pro-wolf position. She noted that her family had endured some scary times when her safety was threatened because of her pro-wolf opinion. Since then, she keeps to herself on the issue and her family chooses not to take a stand in public. If Bev and her family do experience wolf depredations, she wants the option to use lethal measures, but only if necessary. She looks forward to the lessons in land and water restoration associated with the reintroduction of wolves. She feels that her duty is to ensure that the ranch's ecosystems are healthy for generations of her family to come.

Nez Perce Revitalization and the Wolf

The Nez Perce people believe that animals are their ancestors, and that people still possess animal-like qualities today. Animals have unique abilities that people can attempt to develop, ultimately connecting the human animal to a larger ecosystem. In their history the Nez Perce people were told by spirits, called "wyakins", that one day they would be responsible for the protection of animals. This day has come. The reintroduction of the wolf serves to strengthen this belief and their cultural heritage.

-Paraphrased from an interview with Nez Perce Tribal Member

A Nez Perce man, I'll call him Chuck, explained to me in an interview that the wolf is a symbol of "the Indian way of life" and that the species' reintroduction has

brought a renewed sense of empowerment to his people. He said, "It symbolizes that the Indian people are coming back to that point again where we were strong and we thrived here, pre Euro-American settlement." Chuck went on to say "at the height of our existence we lived with wolves and grizzly bears; they are our brothers. We were at our strongest mentally and physically with these beings. Why wouldn't we want to try to go back to something like that?"

Prior to European colonization the wolf served as a great teacher to the Nez Perce people and this legacy continues to live on today. Chuck told me that "everything about wolves comes from that context (of being a teacher); they have to be treated as such. That is their role in our ecosystem." Yellowstone biologists have been surprised by the various unexpected impacts wolves have had on an increase in biodiversity within the park. As we spoke about the wolf's role as a teacher, I came to understand an emptiness that Chuck and his people experience due to the loss of important cultural role model's such as the wolf.

Chuck feels that it is the duty of the Nez Perce people to work with state and federal agencies to stop what he describes as a "relentless attack on the wolf." According to him, this attack is perpetuated by "the new generation of ignorant people. Anything that they feel is an aggressive animal or something that they've been taught can take a human life just shouldn't be here; it should be killed, right now." Chuck says that this belief reinforces the need for Indian people to spread the message that "we've lived with them since time immemorial and there are very rare instances of us ever

being killed by wolves.” This traditional ecological knowledge, that native peoples lived with wolves for thousands of years and have little remembrance of being attacked, is significant, yet overlooked.

When Chuck and I began to discuss the social conflicts surrounding this predator, the idea of wolves being a polarized social issue simply baffled him. He said, “It’s amazing. There’s this conflict that wolves are either really bad or really good. I mean I just don’t see it like that.” He feels that the United States simply sees wolves as critters and has the capacity to eradicate the species again if it so chooses. He went on to say, “It takes much more care than that to have respect for an animal, and so they really belong to us; they’re our relatives is who they are.”

Chuck feels strongly that it is the duty of the Nez Perce people to help provide wolves a place within the ecosystem. He said “more often than not, (that place is) inconvenient to human beings, such as ranchers and farmers, because they’ve never had to give and wolves have given everything -- who they are genetically, scientifically - - everything about them; they’ve been extirpated.” The Indian request for non-Indians to provide wolves a place requires non-Indians to be unselfish, especially ranchers and farmers. He said it “means that there will be livestock depredations. There will be things that are in conflict, but how they live with them is up to that individual. And that is how the Indian people tell whether you are good or bad; your character.”

Discussion

Throughout my fieldwork I began to notice coincidences, due in part because Idaho has such a small population. The first happened in McCall when the two people I interviewed had had previous interactions together regarding a wolf that was killed for stalking cattle while protected under the Endangered Species Act. One interviewee was a rancher protecting his cattle and the other interviewee was a Nez Perce biologist investigating the scene. Each party had very different versions of the same story. This instance was particularly controversial because according to the Nez Perce biologist (and the investigative report) the rancher moved the wolf prior to calling the authorities, which is illegal. Then, the first person he called was the Idaho Governor, a personal friend and openly anti-wolf. A day later the rancher reported the incident to authorities, although the law required reporting the incident immediately. This rancher was ultimately fined a total of \$1,500.00; \$750 for himself, and \$750 for his ranch hand. However, the federal penalty for unjustly killing a wolf while under ESA protection is up to \$100,000 and/or up to one year in jail (Bangs, et al. 2005, 368). The rancher seemed protective of his actions and downplayed the specifics of the situation, including understating the amount of his fine, which had already been drastically reduced by the Governor of Idaho.

What interested me most about this situation was that the issue was between people, not wolves. The wolf had been killed but the lingering issue seemed to be that pitted the rancher supported by the Governor of Idaho, against the Nez Perce

Department of Wildlife. Subsequently, this rancher aimed to prove to me the evils of wolves, and in some ways used the animal as a scapegoat. This was the first case of a pattern that I witnessed; many interviewees had been pitted against one another over land management issues, and alliances and adversarial relationships were already formed, long before wolves were reintroduced. Wolves were just a symptom of a bigger problem. This particular instance is a qualitative example of the Human/Human conflicts surrounding wolves, which accounted for seventy-three percent of the conflict in this thesis; previously formed alliances on long standing issues, abuse of power, lack of power, dishonesty, and favoritism, all of which are issues between humans.

As my fieldwork progressed, most all interviewees had unsettled, ongoing, history with an opposing group regarding land management, prior to the reintroduction of wolves. Issues regarding opposing interest groups came up without my prompting in the interviews. Interviewee issues surrounding opposing interest groups' response to wolves or wolf management were the most discussed topics in interviews, not wolves. This theme existed throughout my fieldwork, and by the end it was almost comical how serendipitous my interviews came to be; I seemed to interview one person who was in direct conflict with the next person I was going to interview, getting two sides to the same story.

Within the conservationist interest group, one man spoke specifically about his frustration in dealing with Idaho Fish and Game regarding how to manage wolves sustainably. Another conservationist discussed his frustration with ranchers that were

able to get away with illegal land management practices due to “good ole boy” connections with the Idaho government and subsequent abuse of power. This man supported wolves as a way to pressure ranchers into practicing healthier land management, ultimately using the wolf as a tool for political leverage. The final conservationist interviewee worked solely to minimize conflict between ranchers and wolves, slowly building on initially difficult relationships with ranchers and working to find ways to alleviate livestock depredations together.

Wolf management returned a degree of sovereignty to the Nez Perce people and that sovereignty continues today as they continue to manage the species on tribal lands. Unfortunately, the Nez Perce experience the most difficulties gaining access to management of natural resources. These issues are so complex that problems even arise at the WERC, illuminating just how tense relations can be between white people and the Nez Perce. Many tribal members would like to see the land dedicated to the WERC returned to its former use as traditional hunting grounds. Ultimately for the Nez Perce however, the wolf is a symbol of great cultural resurgence and the more room for wolves to roam free the better.

Ranchers were the only interest group who experienced what they saw as a threat to their livelihood with the return of wolves, and in general, are opposed to the wolf reintroduction. Some Idaho ranchers even perceived the reintroduction of wolves as a direct attack against them against which they were unable to defend themselves. Two of the ranchers I interviewed had lost livestock to wolves, the other interviewee

had not. The two who had lost livestock were heavily anti-wolf while the rancher who had not lost livestock to wolf depredations was pro-wolf, but had reduced credibility among other ranchers because she had not experienced depredations.

In general, ranchers want as little federal government involvement as possible, and view its involvement as invasive and a threat to their sovereignty. The ESA has been especially challenging for ranchers, forcing them to make sometimes dramatic changes for the sake of a single species. One interviewee lost use on a portion of land due in part to the Endangered Species Act, as discussed above. This particular rancher experienced what he considered extensive harassment from a conservationist as well, giving him a strong distaste for the federal government, wolves, and conservationists.

The source of conflict was different for each interviewee and exacerbated when other stakeholder groups did not respect stakeholder knowledge. Each stakeholder group established authority in different time-tested ways. Conservationists typically establish their authority through formal education. All conservationist interviewees in this study held a Master's Degree, if not a PhD, in a related field. Ranchers, on the other hand, typically establish their authority through the number of generations spent ranching, particularly on the same piece of land. The rancher interviewees in this study had spent two, three and nine generations on each respective ranch. Finally, Nez Perce people seem to establish their authority through the thousands of years their people have spent living sustainably, and with reverence for the land, witnessing its changes and verbally passing on pertinent knowledge for generations to come.

It has taken time for these stakeholder groups to establish their authority. It also takes time, and desire, for stakeholder groups to respect, and ultimately learn from other stakeholder authority, as was illustrated by the interviewee working for Defenders of Wildlife. Wolves can be used as a tool to form alliances or create deeper rifts between stakeholder groups. Wolves present us with an opportunity to rise above petty human tendencies and work together, utilizing accumulated and differing knowledge, as well as a lot of patience; ultimately building much needed bridges around resource management. These bridges would be something for the next generation to build upon.

Conclusions

The wolf is a potent teacher ultimately requiring humans to make behavioral changes in order to coexist with both wolves, and people of differing interests. The presence of the wolf continues to illuminate issues on how we manage public lands and who is granted access to them. The potency of the wolf's agency brings land management debates into the public eye, making them, and ultimately cultural choices, a priority. Humans have fought over access to natural resources on a global scale for centuries, and the wolf has become a symbol of these conflicts in the Rocky Mountains, and in many cases, a scapegoat for misdirected aggression. The Nez Perce draw countless parallels between their fate as a people and the fate of the wolf; both were essentially exterminated with Euro-American colonization. Interestingly, with the return of the wolf we also return to the Indian people for help with this endeavor; both have been teachers to mainstream culture. We see that TEK is integral to concepts of who holds the responsibility for natural resources. Also having great significance is the ecological impacts of wolves, which continue to teach scientists about the complexity of wildlife conservation and management as well as contribute to a richer understanding of what an intact ecosystem actually is.

Human-human conflicts surrounding wolves symbolize, and exemplify, shifting ecological perspectives and values. When studied with the intent of maintaining neutrality, the instance of the wolf serves as a teacher and mirror in human behavior regarding natural resource management. It is a marked shift in natural resource

management paradigm that made reintroduction possible. It is now that the effects of this shift are being felt on the ground and patience is paramount. Since the reintroduction in 1995 some stakeholder groups have begun to work together on management issues. These instances are rare, but paramount to the wolf's survival. Warring stakeholder groups are often familiar enemies, which can be a route to working together as there is a face representing a broader system. The importance of building alliances between stakeholders cannot be underestimated.

Each stakeholder group I interviewed had valuable information to add to wolf management. Improved management hinges on improved relationships, and thus, a broader perspective. Jen, who was working to improve relationships and develop techniques to diminish wolf depredations with ranchers, was a perfect example of this. The more these groups can find ways to work together, opposed to against each other, the more innovative ideas people will come up with for improved natural resource management. An example of this was Dan's idea to incorporate wildlife-viewing areas into wolf management that was unfortunately dismissed by Idaho Fish and Game. These kinds of shifts in perspective take patience, as well as an ability to see the bigger picture.

Originally, ranchers and sheepherders were the most vocal about their opposition to the reintroduction for fear of lost livestock, which has turned out to be relatively minimal and controllable, but still very difficult for a handful of ranchers. Currently, it is the sportsmen who have become more vocal about their anger regarding

declined deer and elk populations that are attributed to wolf depredation, though sometimes wrongly. Scientific findings fluctuate regarding these issues, but one thing is clear: there is no simple answer as we discover a multitude of changing factors within a multitude of ecosystems. Wolves are simply one of these factors in a few ecosystems.

The wolf invokes strong primal reactions within people, but according to this study seventy three percent of the concerns surrounding this predator are actually human-created issues. As Joe mentioned, the wolf is only doing what its instincts drive it to do. People, on the other hand, use the wolf for many things, especially symbols and scapegoats. Some people have used the wolf as a symbol to attack points of view with which they disagree and others have used this predator to teach others about culture and ecology.

This study illuminated the degree of Human/Human conflict surrounding this animal, pushing humans for further self-study in order to protect the natural resources in which we depend. We must work to build bridges and take responsibility for our choices while recognizing our own limitations by welcoming the knowledge of others. In this study TEK illuminated the importance of patience by seeing things from broader time perspective, as well as the fact that science has its limitations and must work with and respect the knowledge offered from those who inhabit the land.

This focused ethnography is a strong addition to current research on wolves. It compliments current work on resolving issues by illuminating the need for humans to focus on problem solving amongst themselves opposed to just wolf management.

Surveys are important for broad perspectives but are by no measure all encompassing. I would never have known the depth and degree of human/human conflict that actually exists by using a survey because people would not have been free to discuss what is actually bothering them. Open interviews allowed for the emergence of TEK and themes begging further research. Also, I feel that quantifying qualitative data could potentially be more telling because it accounts for differences among humans more so than pre-established questions.

Although this study has its weaknesses, they are in part a representation of Idaho's sparse population. It would have been ideal to have formally interviewed more Nez Perce tribal members as well as to have conducted focus groups. The Nez Perce undoubtedly add important perspective to this issue that would be frivolous to overlook. Focus groups would be a good research tactic for future studies as more unified and specific human/human conflict themes would emerge giving focus to solving more grounded problems. Anthropological approaches can undoubtedly aid resource management decisions by taking a broader perspective on issues, especially those as contentious and historical as wolves.

One strong conclusion about policy that can be reached based on this focus on conflict between people is that policy needs to be more stable. The constant back and forth between delisting and relisting the wolf as an endangered species is confusing for people on the ground and does not give them a chance to adapt to the law one way or the other. This back and forth serves to further fuel the fire. People need to know what

is expected of them and have time to adapt so that they begin to see what their options are and become creative. Added protection for wolves while people work out their own problems is important.

Counties need to have the flexibility and power to deal with changes imposed by the federal government in ways that work for them while adhering to federal regulations. Another option is to have government incentives for stakeholder groups who choose to work together and problem solve on issues surrounding wolves or land management.

I agree with David Quammen (2004) who writes in *Monster of God* that alpha predators keep us acutely aware of our own membership within the natural world, deepening our reverence and humility. From my personal perspective, wolf reintroduction in the Northern Rockies is an opportunity to better understand how we relate to the earth and to each other regarding the earth. The wolf reminds us of what we have lost and what we are losing while illuminating the need for us to make the necessary changes within in order to ensure our continued survival on the natural resources in which we depend. The wolf is a potent teacher. I would hope that my study, although limited in scope, illuminates some issues not always addressed and could contribute to increased understanding amongst stakeholders as well as the public.

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APPENDIX A: MAPS

Map of Diminished Nez Perce Territory



<http://www.aaanativearts.com/nez-perce/nez-perce-reservation.htm>

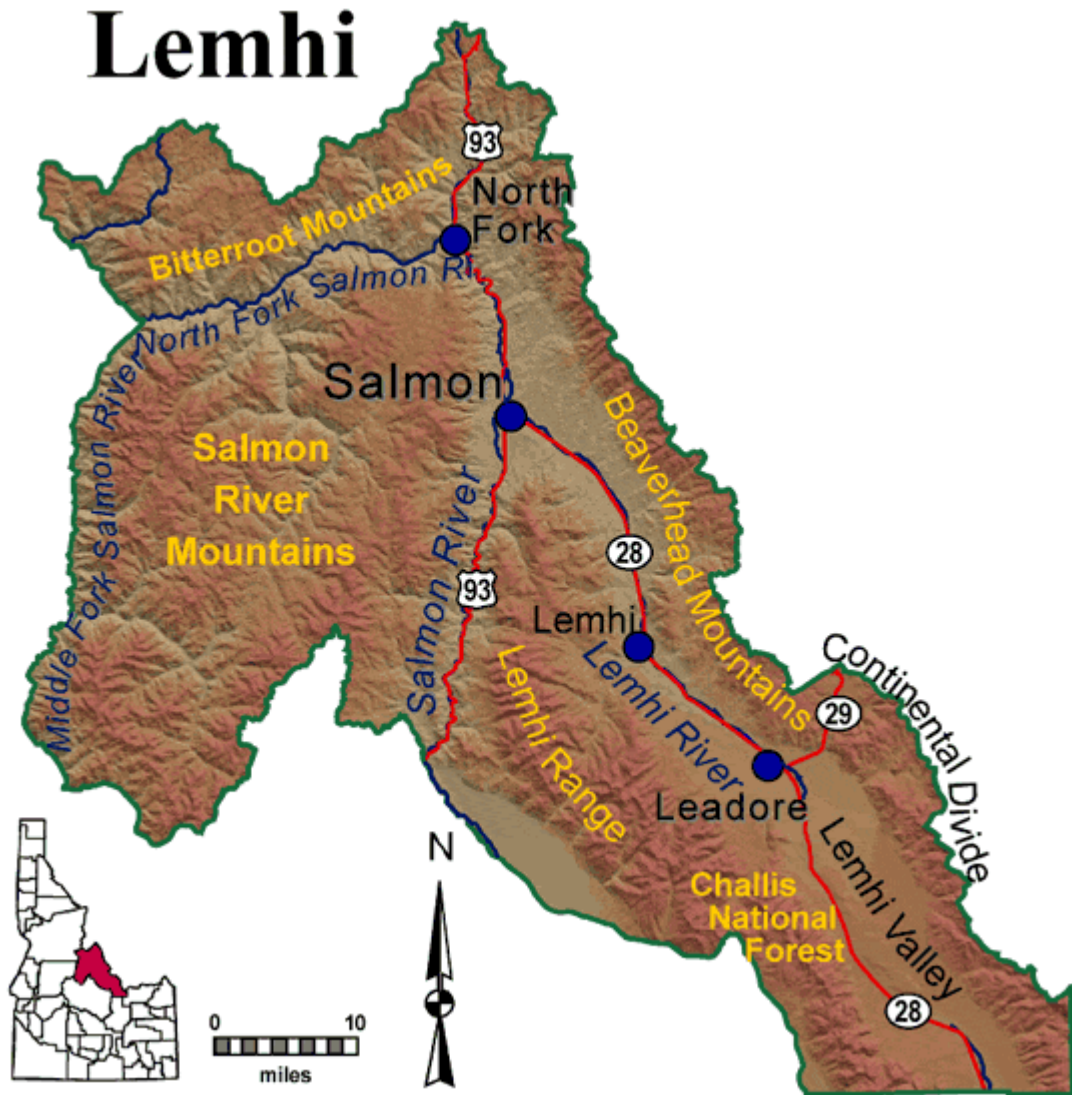
Map of Custer County

Custer



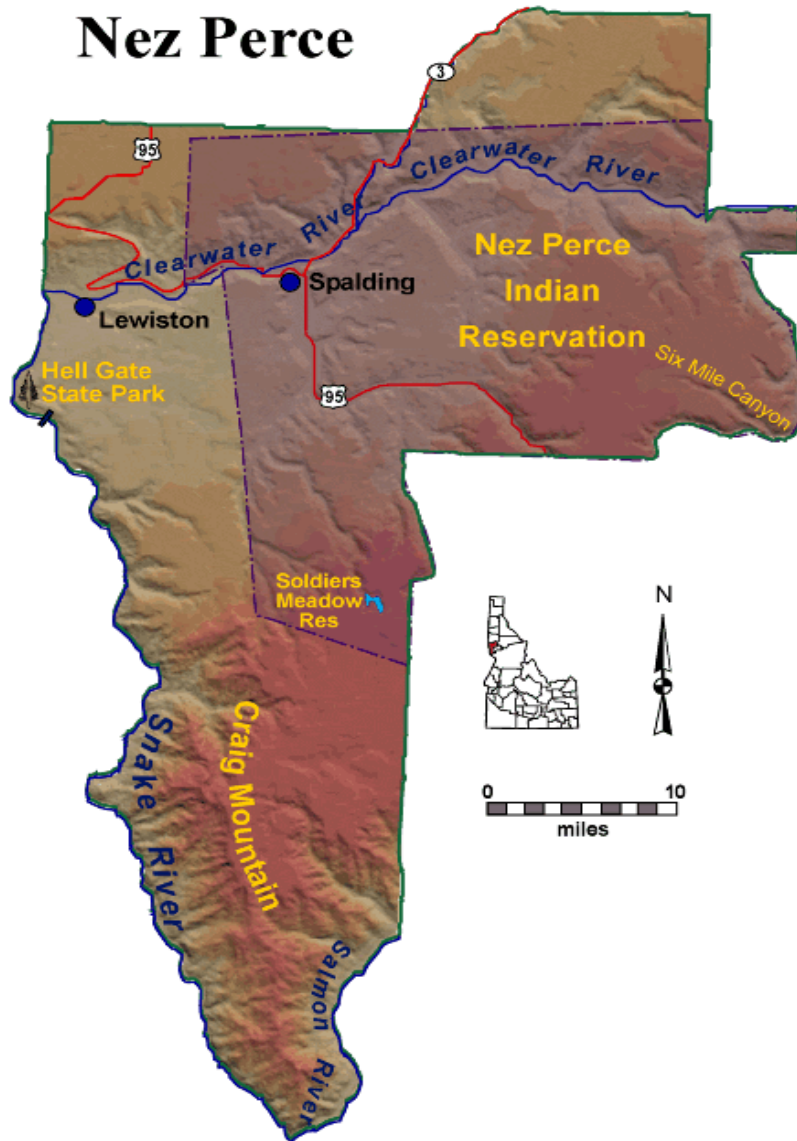
(<http://imnh.isu.edu/digitalatlas/counties/custer/custer.htm>, Nov 2008)

Map of Lemhi County



(<http://imnh.isu.edu/digitalatlas/counties/lemhi/lemhi.htm>, Nov 2008)

Map of Nez Perce County



(<http://imnh.isu.edu/digitalatlas/counties/nezperce/nezperce.htm>, Nov 2008)

APPENDIX B: Survey Forms

Consent Form

Purpose and Benefit:

The controversy surrounding the 1995 wolf reintroduction has illustrated a need for in-depth studies regarding stakeholders' perceptions of, and experiences with, wolves. The intent of this interview is to gain insight into stakeholders' accumulated knowledge regarding wolves. This could possibly bridge gaps between groups of people and/or assist in creating more appropriate state wolf policies.

I UNDERSTAND THAT:

This experiment will involve a tape or video recorded interview lasting between 1 and 2 hours. After the study has been completed the tape will either be placed in an archive or destroyed, according to my specification.

There are no anticipated risks or discomfort associated with participation.

One possible benefit to me is to assist the state in developing appropriate policies regarding wolves.

My participation is voluntary, I may choose not to answer certain questions or withdraw from participation at any time without penalty.

All information is confidential. My signed consent form will be kept in a locked cabinet separate from the questionnaire. I will be issued a copy of the signed consent form.

My signature on this form does not waive my legal rights of protection.

I am at least 18 years of age.

I legally reside in the United States.

This experiment is being conducted by Jami Wright. Any questions that you have about the experiment or your participation can be directed to Jami at 559-930-4113 or wright36@cc.wvu.edu. If you have any questions about your participation or your rights as a research participant, you can contact Geri Walker, WVU Human Protections Administrator (HPA), (360) 650-3220, geri.walker@wvu.edu. If during or after participation in this study you suffer any adverse effects as a result of participation, please notify the researcher directing the study or the WVU Human Protections Administrator.

I have read the above description and agree to participate in this study.

Participant's Signature

Date

Participant's Printed Name

Note: Please sign both copies of the form and retain the copy mark

Interview Questions

- 1) What is your relationship to the land?
- 2) Does the land have any significance in your spiritual/religious values?
- 3) What role do you see wolves playing in your life?
- 4) What role do you see wolves playing in the land?
- 5) How do humans fit into the grand scheme of things?
- 6) What is your experience with wolves?
- 7) Do you have any family stories that include wolves?
- 8) How long has your family been living in this area?
- 9) How has your family typically made a living?
- 10) Have you, your family, or anyone you know, ever had any experiences with wolves?
- 11) What would be some good options to mitigate damage caused by wolves?
- 12) What do you know to be fact about wolves?
- 13) Where have you obtained the information that you do have about wolves?