BORDERED BIOREGIONS: THE RHETORICAL FUNCTION OF CHARACTERIZATION IN WOLF REINTRODUCTION AND RECOVERY

by

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ABSTRACT

The management of iconic predatory species such as the gray wolf provides a valuable index of human-nature relations. The wolf is incorporated into discursive constructions of political power in unique ways, and it may function as an ideograph, or an ideological discursive tool. As both a symbolic mobilizer of human sympathies/ antipathies and an influential material presence within ecosystems, the wolf is worthy of study for how its characterization in discourse resonates rhetorically and materially. This study uses discourse analytic tools to examine tensions in the rhetorical discourse of management decisions related to the gray wolf's reintroduction in the United States. The study focuses on the reintroduction and recovery of the gray wolf in the American West and considers broader themes related to the separation between humans and nature, wildlife management, and the ways in which human and nonhuman bodies alike are disciplined by the discourse of political borders. Engaging the concepts of territoriality, power, ideology and human-nature hybridity while working from specific findings regarding wolf characterization, this study explores how the wolf's presence is both enabled and constrained rhetorically by human political discourse regimes that may fragment the species as an ecological presence in bioregions by imposing on it a rhetoric of political borders.

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CHAPTER 1

INTRODUCTION

On December 6, 2012, Wolf 832f, a female gray wolf popular among wolfwatchers in Yellowstone National Park (YNP), was legally shot and killed by a hunter in Wyoming after she crossed the Eastern border of YNP and entered a trophy game hunting area (Schweber, 2012). Wolf hunting had only recently become legal in Wyoming, where 66 wolves were taken by "public harvest" between October of 2012 and the end of that year (Wyoming Game and Fish et al., 2013, p. 12). The hunt was controversial. Amid similar controversy, wolf 832f's forebears were reintroduced into YNP and central Idaho in the mid-1990s (Phillips & Smith, 1996) under provisions of the 1973 Endangered Species Act (ESA) after having been effectively eliminated from the area early in the 20th century by a government-funded extermination campaign (Coleman, 2004; Lopez, 1978). Today, the controversy is as heated as it has ever been, particularly with respect to hunting wolves, which remains "perhaps the most divisive and potentially explosive issue in the entire wolf debate" (Nie, 2003, p. 68).

The reaction to 832f's death was explosive indeed. Media outlets worldwide covered the story (Hull, 2013), documenting the visceral, anthropomorphic response to her death. Wolf 832f was characterized as an "amazing mother" by one wolf advocate (Schweber, 2012). Others hailed her as a "rock star" and a "consummate professional" (Dax, 2013). Although other responses to the wolf's death were more measured, suggesting that "killing wolves has been part of the deal since the beginning" (Dax, 2013), the strong reaction to 832f's death speaks to the intensity of the human relationship with wolves. This relationship is perhaps a uniquely charged one, as wolves are a prominent character in the Western folkloric imagination (Coleman, 2004; Lopez, 1987; Nie, 2001, 2003; Zipes, 1983) and in many indigenous cosmologies (Clarke, 1999; Lopez, 1978). A wolf, like an orangutan (Sowards, 2006), a gorilla (Milstein, 2013), or a large dolphin such as an orca (Milstein, 2008; 2011), is a bridge species, one with which humans often identify as we "polish an animal mirror to look for ourselves" (Haraway, 1978, p. 37). The view of this mirror, though, may often be distorted, as the wolf's symbolic resonance often outstrips its physical presence, rendering the animal subject to both "pathological animosity" (Nie, 2003, p. 4) and the emotional attachment of anthropomorphism that recasts a wolf as a "rock star."

A wolf like 832f is a potent and mobile symbol in a potent and mobile body. Just as the animal itself moves through ecosystems with ease, what is said and done about this animal ripples outward into the broader discourse of human-animal relations, the construction of political power, and the configuration of ecology. This study focuses on the rhetoric of territory and political borders, which are important discursive formations in the ongoing debate about the place of wolves in ecosystems and minds. Like that of 832f, the gray wolf's story in the American West is about territory and the crossing of borders. Whereas European colonizers once crossed a figurative border—a frontier—into the wolf's terrain and hunted them to extirpation (extinction within a portion of a species' range), wolves reintroduced by those colonizers' descendants now routinely flow across political borders. As 832f's story attests, the consequences can be lethal for wolves and can mobilize strong human responses. The construction and configuration of borders are discursive practices (Flores, 2003; Ono, 2012) that delimit territory, enact exclusion/inclusion and define material consequences for border-crossing subjects. Borders bring to bear issues of ideology, power, territory, law, ethics, and culture. Wolf 832f's life and death shed light on these issues. At the moment of her death, 832f's body bore the symbolic and material traces of conflicting yet overlapping ideologies: a \$4,000 Global Positioning System (GPS) collar placed on her by researchers and a hunter's bullet, worth perhaps half a dollar. Although research and hunting are not the sole human interactions with wolves, the contrast and its enactment by political power structures, particularly borders, is nonetheless notable.

Study Goals

This research is meant to address problems in human-nature relations by analyzing discourse related to the reintroduction of the gray wolf (*Canis lupus*) and its subsequent recovery. In this process of mapping discursive constructions of the wolf, I consider questions of power and ideology, long a primary concern among scholars of critical cultural theory, discourse analysis, and environmental communication (Bhabha, 1994; Chouliaraki & Fairclough, 1999; Demo, 2005; Fairclough, 2001; Flores, 2003; Foucault, 1972, 2007; McKerrow, 1989; Plec, 2007). This analysis will provide valuable insight into how discourses construct characterizations of the gray wolf in particular and, more generally, how these discursive formations configure ecology and arrange social reality. Ultimately, the goals of this study are threefold: First, to further the scholarly conversation on human-nature relations; second, to extend earlier research on the reintroduction of wolves in the American West (Clarke, 1999; Hardy-Short & Short, 2000; Salvador & Clarke, 2011); and third, to build a linkage between theoretical and practical discussions of how human and nonhumans are managed and disciplined by discourses that establish territory and enact inclusion/exclusion.

Terminology

This study applies discourse analytic tools to identify how discourses construct (and deconstruct) a niche for the species through the process of characterization. For the purposes of this study, a "characterization" is a depiction of a social actor that feeds into narratives across various contexts addressing that social actor's proper place in society (Condit, 1987; Hasian, 2000). Based on the wolf's prominence as a symbol and a "charismatic" (Sergio, 2006, p. 1049) bridge species, it may be considered a social actor (as well as an ecological one) whose place is defined and delimited through discourse. Characterization as an analytic unit includes naming, which in turn encloses "all that has been said in criticism under the rubric of 'rhetorical discussions,' 'ideographs,' and 'condensation symbols'" (McKerrow, 1989, p. 105). By "discourse," I refer broadly to semiotic practices of knowledge construction, with semiosis extending past text and talk and into the drawing of borders on maps and the discursive sanctioning of particular activities (Foucault, 1972; Fairclough, 2001; Chouliaraki & Fairclough, 1999). I take these practices as rhetorical ones: that is, practices with the potential semiotic power to shape social realities of ideology, knowledge, affect and behavior. I analyze for possibilities of rhetorical influence, but I neither trace causation (Condit, 1987) nor fix meaning (McKerrow, 1989; Foucault, 1982). These rhetorical discursive practices can be enacted materially, symbolically, or in amalgams of the two.

I take ideology to mean systems of presuppositions that guide the application of power and shape knowledge. By power, I mean the manifold and multidirectional application of rhetorical force both against and by social subjects, a category in which I include animals (Latour, 2005; Davis, 2011; Hawhee, 2011; Kennedy, 1992). Importantly, I do not engage at length the question of animal agency attached to this subjecthood; rather, I identify animals as social subjects based on their interpellation into and discipline by discourse. When I speak of "nature," I refer to "the ecological lifeworld both beyond and inclusive of humans, which is constrained by discourse but retains material character outside discursive formations" (Phillips, 2014, p. 453). I follow the Oxford English Dictionary's definition of bioregion: "a geographical area defined by biological or environmental characteristics rather than by political or administrative boundaries" (OED, 2015). This definition highlights the tension inherent in the research problem I address. Finally, when I discuss sovereignty, I apply the concept simply as complete control over a territory.

Research Questions

In this study, I am concerned with how discourse characterizes wolves biologically and administratively by establishing *what wolves are, what they do* and *what threats and benefits they present.* These general categories structure the study's chapters. There is, of course, substantial drift across these categories: such is the depth and nuance of this complex issue. Nevertheless, isolating the wolf's discursive disciplining in terms of these simple categories can show how discourse establishes ecological and political territories and enacts inclusion/exclusion from social and scientific perspectives. Given the strong symbolic resonance of the wolf, its discursive configurations inevitably feature the sort of "distortions" and "system pathologies" Cox (2007, p. 10) has called scholars of the environment to examine. To that end, I examine discourse surrounding gray wolf management, analyzing discursive characterizations of gray wolves and the possible implications thereof. The analysis is guided by 3 interlocked questions:

- 1) How are gray wolves characterized in discourse?
- 2) What might these characterizations imply about the dynamics of sociopolitical power struggles?
- 3) How might these implications affect theoretical and practical conversations about human-nature relations and wildlife management?

Context: Gray Wolf Reintroduction

In the study's various chapters, I provide specifically contextualized answers to the research questions across the categories of what wolves are, what they do and the threats and/or benefits they present; in this introduction, then, the context is general. For excellent histories of wolves in the American West, see Coleman (2004), Mech (1970), Lopez (1978), Nie (2003), and Steinhart (1995). For general context, it is useful to know that section 10(j) of the 1973 Endangered Species Act (ESA) allows for the reintroduction of endangered species into parts of their historic range from which they had previously been removed through human intervention or natural decline. Since reintroduction of animals such as native predators by the federal government typically met with considerable resistance from state and local agencies and concerned publics, section 10(j) was amended in 1982 to facilitate the reintroduction and recovery of endangered species. The amendment introduced the concept of an "experimental" population, a label that reduced an endangered species' status to "threatened" in the portion of its historic range in which it was reintroduced (ESA, 1973, p. 33-34). This legal designation, later combined with concept of a "nonessential population" of a species, presents a case rife with implications regarding the discursive and rhetorical construction of ecology, territory and "populations" of endangered species. These implications in turn ripple outward into general discussions of environmental problems, adding to the significance of a study such as this.

In 1995 and 1996, gray wolves were reintroduced into Yellowstone National Park and central Idaho under the provisions of section 10(j) of the ESA, as amended in 1982 (Phillips & Smith, 1996). The animal had historically occupied this territory for around 750,000 years prior to its extirpation by colonizers of the American West by about 1930 (Lopez, 1978; Coleman, 2004). For the purposes of the 1995 reintroduction, the newly revitalized Rocky Mountain population of the gray wolf was labeled "nonessential experimental," allowing for greater management flexibility through reduced protection outside the borders of Yellowstone National Park and other designated areas (ESA, 1973, p. 33-34). From a practical perspective, such a designation may have facilitated reintroduction by offering anti-wolf stakeholders such as ranching and hunting groups the promise of eventual control over the reintroduced population after recovery goals were met and management thus passed from the U.S. Fish and Wildlife Service (FWS) to state wildlife management agencies. Nevertheless, the "nonessential experimental" designation highlights a paradox endemic to the human relationship with this particular predator: the very idea of reintroducing the gray wolf to the Rocky Mountain region of Idaho and Wyoming is predicated on ecological science, a budding branch of inquiry at the time of the ESA's codification, which would suggest the wolf is *essential* to the

ecosystem into which it was introduced (Mech, 1970; Murie, 1944; Ripple & Beschta, 2003, 2006, 2007; Sergio et al., 2006). The tension of this paradox animates discussions about the presence of wolves and motivates this study.

Decisions about wolves are made in four primary (if never mutually exclusive) disciplinary arenas that form a discursive system: politics, law, science, and commerce. This system is often fragmented by ideologically-inflected practices: politics can trump science through the use of law, for example (Hardy-Short & Short, 2000), thereby limiting the coherence of discursive constructions of the wolf's role. At all turns, vernacular discourses (most notably those, present across many cultures, that involve the wolf as a character in myth) may feed into these ostensibly more formal and logical discourses (Lopez, 1978). This limited discursive coherence carries material implications: if the species is discursively fragmented, its ecological presence may be similarly fragmented because discourse meaningfully characterizes wolves, alternately enabling and constraining the species' ecological role. Wolves' discursive status-and hence their ecological role—moves between the poles of protection and persecution (and a spectrum of positions in between) in the manner of a pendulum, one whose rhetorical aspects are worthy of study because of the social prominence of this issue as a "synecdoche" (Clarke, 1999; Moore, 1994) for broader environmental issues.

The Ideographic and Ecological Wolf

The symbolic significance of the wolf has been firmly established in literature addressing the rhetoric of wolf reintroduction (Clarke, 1999; Hardy-Short & Short, 2000; Salvador & Clarke, 2011) and the general social resonance of the animal (Fritts et al., 1994; Jones, 2010; Mech, 1995; Nie, 2001, 2003). Polysemous and polarizing, the word <wolf> may function as an ideograph (McGee, 1980) in contemporary culture, synecdochal shorthand for limits on industry on the one hand and ecosystem restoration on the other (Clarke, 1999), much like other species such as the spotted owl (Moore, 1993). I am concerned less with the particular rhetorical tropes associated with the wolf's symbolic resonance, such as synecdoche, and more with how the animal's symbolic resonance may be manifest in legal/official characterizations of it. These manifestations of a key cultural character may take various rhetorical forms, from metaphor to synecdoche to a recontextualization of knowledge (and with it, power) from science to politics. Such is the breadth and polysemy of the wolf ideograph.

If the wolf's symbolic presence is outsize, so too is its ecological presence: the preponderance of scientific studies on the subject support the notion that wolves stabilize ecosystems and increase biodiversity (Eisenberg, 2010; Ripple & Beschta, 2003, 2006, 2007). This insight had early manifestations in Leopold's (1949) account of the regret he felt upon shooting a female wolf and watching the "green fire" (p. 130) fade from her eyes and in Murie's (1944) and Mech's (1970) exhaustive studies of wolves' influence on ecosystems. Wolves are a key part of a "trophic cascade" (Fortin et al., 2005; Estes et al., 2011) through which they distribute energy across food webs, benefiting the "scavenger guild" (Wilmers et al, 2003, p. 909) of eagles, bears, ravens, magpies, red fox and many other fauna and, in turn, flora such as willows and aspen (Eisenberg, 2010). The wolf's symbolic resonance, though, informs even the most staid scientific literature, wherein characterizations of the wolf's role tend toward the figurative, as terms such as "apex consumer" (Estes et al., 2011) or "keystone predator" (Beschta, 2003) attest. In a sense, such metaphoric characterization is entirely practical, as it efficiently communicates the

wolf's ecological role. Yet it also configures the species in a particular way by emphasizing its importance: just as an arch is impossible without a keystone, these metaphors imply, an intact ecosystem is impossible without the presence of this predator. As Nie (2003) has argued in reference to the wolf, metaphors package environmental problems and organize particular orientations toward them.

As a testament to this symbolic process, most parties associated with gray wolf reintroduction have noted that the wolf's symbolic resonance factors into gray wolf management (Fritts et al., 1994; Phillips & Smith, 1996; Niemeyer, 2010). Recent research on the role of rhetoric in the management of other large, charismatic predators such as grizzly bears (Parker & Feldpausch-Parker, 2013) has confirmed rhetoric's role in shaping policy. In the case of wildlife management, then, rhetoric is particularly active as a structuring mechanism for decisions and their material consequences.

If the rhetorical construction of discourse affects management decisions, then interrogating policies that discursively define the place of animals may reveal how coercive human power over animals is "justified, reinforced, resisted and transformed in minds and institutions through discourse" (Milstein, 2013, p. 163). This discursive process is motivated by ideologies that select aspects of experience and knowledge and repress others, producing naturalized understandings regarding the place of animals. In the case of the gray wolf, ideologies that characterize the wolf as a worthy ecological presence and those that cast it as an unwanted predatory presence coexist alongside one another in paradox, sanctioning the use of disciplinary power to allow wolves' presence while at the same time militating against it.

Theoretical Orientation and Contribution

This study is theoretically founded on critical social theory in general and in environmental communication more specifically. The critical lens can be described as critical rhetorical, which interfaces effectively with the method of discourse analysis. In this section, I briefly review relevant literature and identify the particular concepts and theories I hope to interact with and modify. In pursuing the analysis of discursive discipline, this study takes cues from 3 important theoretical bodies, which are not single texts but groups of practices and concepts explored across a network of critical theory.

First, the general orientation toward critique owes much to McKerrow's (1989) description of the critical act, which in turn developed in large part as a response to Foucault (1980) and a host of other theorists, notably for this analysis Condit (1987). The shared pillars of McKerrow's articulation of a critical rhetoric and Foucault's analysis of discursive power—the critique of domination and the critique of freedom—provide the impetus for this study and inform its analysis and conclusions. In particular, the impetus of this study is to demystify the discursive "conditions of domination" (McKerrow, 1989, p. 91) in the case of the gray wolf. Conflicted attitudes and policy seem to extend the right to exist to this species while simultaneously marking that right as contingent and revocable; I aim to analyze this disconnect and draw conclusions.

This critique of domination leads the study to interact with postcolonial and anticolonial theory, not just because domination is present in each case or to offer a simplistic analogy between the domination of people and animals, but because this body of theory offers powerful insights with respect to the rhetorical functioning of the domination of subaltern (Spivak, 1988) bodies through discourse. In particular, such studies have offered robust theorizations of how political borders function rhetorically as discursive devices of control that discipline and alienize subjects while enacting security over mobile populations (Cisneros, 2008, 2011; Dechaine, 2009; Flores, 2003; Ono, 2012).

Analyzing the application of disciplinary power through discourse, Foucault (2007) considered how the modern concepts of territory and population affect social realities. For Foucault, the epistemological modes of governmental structures exercise a "very specific, albeit very complex, power that has the population as its target, political economy as its major form of knowledge, and apparatuses of security as its essential technical instrument" (2007, p. 108). Borders are an important apparatus of security by which to control the movement of populations within territories, whether those territories are delineated politically or bioregionally and whether the population in question is *Homo sapiens* or *Canis lupus*. The assertion of sovereignty over a territory, particularly on the part of state governments, is a consistent feature of discourse on wolves, as is the notion of security. Population, too, has become an extremely thorny issue in assessments of the health of the wolf population; I examine the development of this concept in depth.

Second, I proceed from the notion that environmental communication is a "crisis discipline" (Cox, 2007, p. 5) As such, appraisals of the power dynamics endemic to discursive and material interactions between humans and our imperiled world are a foundational concern for the study and for my scholarship in general. Such an appraisal does not just meet the needs of walled-off scholarship, but it also engages concerns related to wildlife management policy, the practice of law, and the production, dissemination and facticity of scientific practices. The performance of a rhetorical

critique of domination is an act I approach with an eye to material consequences: critique resonates materially as well as rhetorically. The most prominent outcome of this orientation in this study is the occasional embrace of the facticity of scientific results. I do so not out of a misunderstanding of the way science is conducted and the instability of "fact" as both a fact and a concept, but because crisis demands the use of a pandisciplinary toolkit, including science (Latour, 2004; Ceccarelli, 2011).

Third, I answer a call to consider the divide, or border, between nature and culture (Rogers, 1998; Latour, 1987). The border between animal and human is a subset of this foundational divide. This bifurcation is a foundational element of Western epistemology generally, and it is as persistent as it is problematic. Descartes' *cogito ergo sum* provides apt shorthand: that which can manifestly think, which is to say that which can speak and be understood (how else to prove thought?), *is*. All else is suspect and may not *be*. Even outside the hyper-subjective episteme of a Cartesian worldview, as in the skeptical empiricism that partially eclipsed Cartesian rationalism in the enlightenment and thereafter, we humans often separate ourselves from the animate world that surrounds us.

Scholars have recently interrogated this divide and its associated "othering" of animals (Sowards, 2006). Environmental communication scholars studying human domination over nature have noted a persistent divide between humans and nonhumans (Milstein, 2008, 2011; Rogers, 1998). Fielding terms such as "humanimal" (Milstein, 2013, p. 162) in an attempt to vitiate human/nonhuman divides, environmental communication scholars have analyzed how humans identify with charismatic wild animals by naming them (Milstein, 2011) and by identifying shared characteristics across species (Sowards, 2006). Charismatic species, these scholars have argued, are "icons that illuminate problematic human-nature relations" (Milstein, 2008, p. 173). Recent studies addressing animals and communication have drawn from discourse analytic discussions of power and ideology, shedding light on how humans exert material power over nonhumans through coercion (Milstein, 2013; Stibbe, 2001). This study shares these scholars' focus on the functioning of power in humans' discursive and material manipulation of the animal world.

The Hybridized Wolf

Central to this analysis and subsequent theorization is the way in which the wolf attaches as a character to the human social experience. This attachment is not just central to fairy tales, folklore and tales of origin; rather, the wolf is used as a key concept in the organization of political power in Western society. So intimate is this association that I term it a hybridity. A wolf-human hybrid is not an anomaly; it is a naturalized norm of how humans mark what belongs and what/who does not in a territory. This claim is foundational to the way I develop and modify the concept of hybridity. To illustrate the way in which the Western social and juridical order incorporates the wolf and hybridizes it with the human, I turn to Agamben.

Agamben (1998) operationalized Foucault's theory of territorial power by discussing a key juridico-political concept: the "ban" (p. 104), or the ability to banish a subject from a territory. The banned subject is, for Agamben, a version of "*Homo sacer*" (p. 71), a Roman juridical term for a person unprotected by law who can be killed with impunity. In a chapter entitled "The Ban and the Wolf" (p. 104), Agamben critically examines how the sovereign state's "natural right to punish" (p 106) flows from the identification of danger and threat, which are etymologically and substantively related to the wolf. The banned person or "bandit," exiled from the sovereign's territory and subject to death without repercussions, is a liminal character defined in Germanic and Anglo-Saxon languages as a "wolf-man (*wargus*, werewolf, the Latin *garulphus*, from which the French *loup garou*, 'werewolf,' is derived)" (p. 105). The separateness of the bandit is thus paradoxically inscribed into the character at the center of the political order: the sovereign. Power therefore fuses with the subject that it will completely strip of power. This results in a curious interdependence wherein the most politically central subject incorporates and uses the banned subject, *yet needs the banned subject tin order to define sovereign power*. That powerless banned subject—the bandit—is characterized as a wolfhuman. The legal system in the Western tradition thus incorporates the wolf as always within and yet always outside the social order.

The wolf may be seen in the Western political tradition as a keystone other, a beyond-human bandit that merges with the human in circumstances where the power to kill and exile within a territory is exercised. The bandit "is precisely *neither man nor beast* [sic, emphasis in original]," a character that "dwells paradoxically within both while belonging to neither" (p. 105). At the conceptual center of the Euro-American political order, then, is a wolf-human hybrid, an ideologically and discursively constructed liminal character. This notion of the wolf as interpellated into human political discourse at its core structures the analysis and theory construction of this study. In Chapter 2, I specifically apply this notion of the wolf"s association with a liminal character to the way in which the prototypical Western American individual, the cowboy, is implicitly and explicitly incorporated in discourse on the wolf.

Operationalizing Hybridity: The Study's Contribution

The theory of hybridity I develop is distinct from earlier versions of it in the conversations into which this research enters. It is a modification of and complement to existing theories that also owes its genesis to them. In each chapter, I offer conclusions that add to the general theoretical skeleton identified in this section. In the concluding chapter, I yoke together these theoretical conclusions in the service of the study's broader claims. Here, I lay the foundation for this contribution, noting the roots of the concept in modern critical theory.

Latour (1993) noted the contemporary social proliferation of hybrids, or "mixtures between entirely new types of beings, hybrids of nature and culture" (p. 10). Latour argued that this hybridity exists in paradox: it is simultaneously a controlling condition of technosocial modernity and an unacknowledged phenomenon masked by social reality. In response to this perceptual gap, Latour enrolls both humans and nonhumans as "actants" (2005) in networks of activity, argues for the recognition of hybrids, and asks whether a "democracy extended to things" might be necessary (1993, p. 12). If this "different democracy" emerged, human society and nature would not be separated by bright lines. Notions of who and what can act on the world would be concomitantly expanded. The reintroduction of gray wolves into an area from which they were extirpated only decades earlier under legislation that manifestly values the lives of wild animals ostensibly mimics this "different democracy." The ecologically-attuned ethics and systems-based ecological thinking that undergird the ESA seem to enact an inclusive notion—which I associate with but do not solely attribute to Latour—of what has the right to exist and act. I argue, however, that current wolf management policies

and the broader discussions around them indicate a circumscription of this inclusive vision. Instead, hybridity in the case of the wolf-human relationship seems to undo this systems thinking: the wolf's symbolicity as part of the human social experience may fatally constraint its material presence. Latour's different democracy is thus both promised by the reintroduction of the gray wolf and fatally circumscribed by post-reintroduction policy and politics.

Hybridity has been identified as a persistent and problematic both/and (Bhabha 1994), a state in which the subaltern human subject is possessed of and by a series of possible identities, never inhabiting a coherent self. In postcolonial theory, hybridity has been seen as a complex "strategy for domination" (Chouliaraki & Fairclough, 1999, p. 14; see also Anzaldúa, 1999; Cisneros, 2008, 2011; DeChaine, 2009; Santa Ana, 2002). In these formulations, hybridity is a double-sided coin involving the assignment of liminal discursive and bodily status to subjugated population and affirmative (re)appropriation of the mixed both/and/neither identity wrought by dominant cultures' refusal of linguistic/racial otherness. I focus on the mixed characterization that precedes this appropriative move: one is hybridized by hegemonic power before one reappropriates that hybridized identity to lay claim to belonging or citizenship (Cisneros, 2011; Moreman, 2008). Since wolves cannot language their way into appropriating particular identities, hybridity is something done to them rather than something they do. This is a significant difference, and it highlights an ineluctable distinction between humans and other animals, even if some theory has productively questioned this distinction (see, e.g., Kennedy, 1992; Spiegel, 1998). This study both respects and seeks to complicate differences between humans and animals. I do not seek a simple analogy

between human subjugation and that of animals. The study means no devaluation of the stories and suffering of people.

In addition to its use in theories of the sociality of science and colonial domination, environmental communication scholars have also used the concept of hybridity. For example, Mariafote and Plec (2006) have thoughtfully applied the notion of Bahktin's "organic hybridity," or unintentional polyvocality in human identification with nature. My use of this concept is complementary to but distinct from this formulation. In particular, my development of the concept of hybridity stems from Cox's (2007) call to examine "system pathologies" in environmental communication and Nie's (2003) claim that human-wolf relations display "pathological animosity" (p. 4). The study uses the term pathological in the sense of "related to or dealing with disease" (OED, 2015). The disease is exacerbated by its appearance as a cure: while reintroducing the gray wolf looks like an extension of the right to exist, the process is fraught with constraint. The wolf becomes a political pen, a way of drawing borders around territories, rather than a deserving denizen of its native range. Ultimately, this system pathology is a threat to the health of the human relationship with wolves both materially and discursively and, more practically, it may ultimately threaten the health of the species by denying it genetic exchange across a metapopulation (Liberg et al., 2004). Although I identify this relationship as pathological, I do not discount the potential for communicative practices between humans and animals to productively question the human-nature divide. Indeed, this research is an attempt to do just that.

Method

The basic analytic method employed in this study is the close reading of public texts, contexts and social/discursive practices regarding gray wolves. To that end, I use discourse analytic tools. Seeing these tools in action, as the reader will in the following chapters, provides the best explanation of what they are and how they function, including how I adapt the analytic method to discursive genres and rhetorical situations in their complexity. In general, the analysis is intended to enact a critical rhetorical approach focused on ideology and rhetoric (McKerrow, 1989; McGee, 1980; see also Foucault, 1972). I accomplish this by grounding in linguistic particularity the study's contextualized descriptions of and claims about the rhetorical function of discourse, which is a fundamental tenet of discourse analysis (Huckin, Andrus & Clary-Lemon, 2012). My analysis adopts the general approach of discourse analysis, particularly those iterations of it that focus on matters of ideology and power (see, e.g., Blommaert, 2005; Chouliaraki & Fairclough, 1999; Fairclough, 1989, Huckin, 2002; Kress & Van Leeuwen, 1996; Van Leeuwen, 2008). More specifically, I practice what Huckin (2002) has termed context-sensitive discourse analysis. Huckin (2002) identified 3 primary strains of discourse analysis—critical discourse analysis, social linguistics and social semiotics-and linked them under the rubric of context sensitive discourse analysis by showing how they all "embody the general features that any critical rhetoric, according to McKerrow, must satisfy" (p. 156). Context-sensitive discourse analysis, following McKerrow (1989) brings to bear the "same 'critical spirit' that is held in common among the divergent perspectives of Horkheimer, Adorno, Habermas, and Foucault" while serving "a demystifying function . . . by demonstrating the silent and often nondeliberate ways in which rhetoric conceals as much as it reveals through its relationship with power/knowledge" (McKerrow, 1989, p. 92, qtd. in Huckin, 2002, p. 156). Huckin outlined 10 prominent features of context-sensitive discourse analysis; this study seeks to embody six of them. They are therefore paraphrased below. For Huckin (2002), Contextsensitive discourse analysis should:

- Focus on contemporary social issues, showing how people (in the present study, people and nonhumans alike) are manipulated by regimes of power through discourse.
- 2. Consider the operations of power, resistance and ideology.
- Connect the analysis of text with those of discursive practices and broader social contexts.
- 4. Mix social and rhetorical theory.
- Emphasize omission, presuppositions, implicature and other discursive ambiguities, recognizing their potential power.
- 6. Ground analysis in detailed textual and intertextual analysis.

I am committed to these principles of context-sensitive discourse analysis in this study.

Geographical and Temporal Bounds of the Study

The case I examine in detail is that of the reintroduction and subsequent management of the gray wolf in the Rocky Mountain region of the United States from 1987 to the present day. I do not analyze every communication in that time period; rather, I select those with the force of policy and law (administrative discourse) and complement this analysis with selected characterizations in a vernacular vein. I explain the data selection process in specific detail in the various chapters, and I outline data selection criteria in the next section of this introduction.

I have chosen this case because it allows a focus on the application of section 10(j) of the ESA through the reintroduction of a species. In addition, it shows how discourse disciplines a particularly fertile symbol and a social, adaptable, wide-ranging and territorial animal. In that sense, this study maps the process of one such animal disciplining another such animal, namely the wild shadow of our domestic "best friend," *Canis lupus familiaris*. A further benefit to examining this area is the way in which it shows how state and federal power interact. While the geographic and temporal range and domain of the study are bounded, then, the case is roughly generalizable as a key conflict in human-wildlife interaction.

In the next 3 chapters, I analyze discourse emanating from four Western states affected to varying degrees by wolf reintroduction: Idaho and Wyoming, which are the areas into which wolves were introduced in the 1990s, and Utah and Washington, bordering states of these points of origin for reintroduction that share contiguous wolf habitat with these states. We thus see how discourse disciplines the species when its presence is a certainty, as with Idaho and Wyoming, and when its presence is an increasing possibility, as in the case of Utah and Washington.

Data Selection

Selecting data based on the geographic and temporal parameters described above builds a coherent case study bound to a reasonable scale yet still representative of human/animal divides and conflicts worldwide. In addition, I further winnowed the field of potential data by adopting and applying specific selection criteria. All discursive data I analyze fit at least two of 3 primary selection criteria: 1) rhetorical influence, 2) visibility, and 3) conflict. All data analyzed in detail is publicly available on the World Wide Web.

As to the first criterion, I identify rhetorical influence in functional terms: the influential discursive artifacts I analyze are official communications such as statutes, legal decisions, environmental impact statements, agency wolf management plans, official correspondence, and resolutions on state and local levels. Such artifacts guide decision making and compel particular action. I purposefully adopted the concept of rhetorical influence when screening potential data for analysis so as to gain insight into the functioning of powerful discourses that consequentially shape the wolf's role in ecosystems and societies. To say a discursive artifact may wield influence is not, importantly, to say it is necessarily causative of this or that outcome. As Condit (1987) has noted, this critical move of analyzing discursive influence rather than causation "eschews the determinism latent in the term 'cause" (p. 2). Although each chapter presents and analyzes data, I avoid decontextualizing the data from the historical moments and scenes implicated in discourse. Thus, chapter discussions often bring in discursive artifacts that move the analysis forward but are not systematically analyzed for discursive content.

The second criterion for data selection, visibility, is a simple category motivated by my desire to ensure the multimodality of the analysis and its relevance to theoretical and practical discussions of human-wildlife interactions. These data take the form of images, and they emanate from official as well as vernacular sources. As Van Leeuwen (2008) has noted, analyzing images in partnership with written semiotic artifacts strengthens discourse analysis. As Barthes (1973, 1977) and many others (e.g., DeLuca, 1999; Hariman & Lucaites, 2011; Kress & Van Leeuwen, 1996; Van Leeuwen, 2008) have argued, images stimulate viewer interpretation and call up associations about the social and cultural position of what or whom is imaged. As potentially powerful political statements, images can organize particular orientations toward what is represented (Hariman & Lucaites, 2011). Since unofficial visual communications often get wide circulation on the World Wide Web and through other means, such as billboards receiving millions of views by passing motorists, I include selected unofficial communications. I further detail rationales for their relevance as I introduce them in their respective chapters.

The third criterion, conflict, is a broad category that I tighten up by considering particularly consequential discursive flash points regarding wolf biology and behavior. Wolf biologists, for example, vary greatly in opinion about what constitutes a "recovered" or "viable" population of gray wolves; this instability is reflected in the data. I analyze this and other consequential conflicts that have often been the source of legal opinions, revisions in management schemes, and the like.

Tables 1.1, 1.2 and 1.3 provide exhaustive chapter-by-chapter lists of data selected, along with their alignment with the selection criteria.

Study Outline and Data by Chapter

Each chapter contextualizes and analyzes conflicts around wolves across the categories of what a wolf is, what a wolf does, and the threats and benefits presented by wolves. This study proceeds in four parts as follows: In Chapter 2, I discuss characterizations of *what a wolf is*. The chapter presents detailed context regarding how

Table 1.1. Chapter 2 Data

Date	Title	Selection Criteria
1973	ESA	СІ
1980	Wolf Recovery Plan	CI
1987	Wolf Recovery Plan	CI
1994	Final wolf Environmental Impact Statement (EIS)	CIV
1997	Wyoming Farm Bureau v. Babbitt	CI
2000	Wyoming Farm Bureau v. Babbitt (appeal)	CI
2002	Idaho State Wolf Plan	CI
2005	Utah State Wolf Plan	CIV
2010	Idaho Governor's letter to Secretary of Interior	CI
2011	Wyoming State Wolf Plan	CIV
2012	Wyoming State Solf Plan addendum	CIV
2013	Big Game Forever (lobbying group) report to Utah Legislature	e C I
2014	Big Game Forever (lobbying group) report to Utah Legislature	e CIV

Arranged by date of publication, artifact title, and selection criteria, where C=conflict, I=rhetorical influence, and V=visibility.

Date	Title	Selection Criteria
1973	ESA	CI
1980	Wolf Recovery Plan	CI
1987	Wolf Recovery Plan	CIV
1994	EIS	CIV
2000	FWS Wolf Population Rule	CI
2001	FWS Peer Review of 1994 EIS	CI
2002	FWS Wolf Report	CI
2003	FWS Wolf Population Rule	CI
2006	FWS Wolf Report	CI
2007	FWS Wolf Report	CI
2008	FWS Wolf Population Rule	CI
2008	Defenders of Wildlife v. Hall	CI
2009	FWS Wolf Population Rule	CI
2010	Defenders of Wildlife v. Salazar	CI
2011	Federal budget bill rider delisting wolves under ESA	CI
2011	Wyoming Wolf Plan	CI
2012	FWS Rule Delisting Wolves	CI
2012	Wyoming Wolf Plan addendum	CI
2012	Wyoming Wolf Management Map	CIV
2012-	Wyoming Game and Fish website	CIV
2014	Defenders of Wildlife v. Jewell	CI

Table 1.2. Chapter 3 Data

C=*conflict, I*=*rhetorical influence, and V*=*visibility.*

Table	1.3:	Chapter	4 Data
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Date	Title	Selection Criteria
2011	Idaho Legislature disaster emergency declaration	CI
2014	Washington Residents Against Wolves billboards	CIV
2014-	Washington Residents Against Wolves Facebook site	C V
2014	City of Ketchum, Idaho's resolution on wildlife coexistence	C I

Arranged by date of publication, artifact title, and selection criteria, where C=conflict, I=rhetorical influence, and V=visibility.

the species is scientifically named and how it has been rhetorically associated with both the federal government and with foreignness since its 1995 reintroduction to the Rocky Mountain region. I discuss the species/subspecies taxonomic classification of the gray wolf and various ways in which the wolf is modified on lexicogrammatical levels of adjectival modification and attributive modification of gray wolves. Modification is discussed in terms of written texts and images. I argue that these modifications in many cases associate the wolf with foreignness and place it outside the category of wildlife, hybridizing the wolf with an oppressive federal government and encapsulating the animal within discourse.

In Chapter 3, I discuss characterizations of wolves that address *what a wolf does*. I focus the discussion on two key elements of what wolves do that drive management decisions and sculpt opinions on wolves. These elements are 1) breeding and forming populations; and 2) moving, or dispersing across territories and from pack to pack. Both elements relate to the genetic health of the species and hence its viability as an ecological presence. Both elements are complicated in their definitions, as these characterizations

span the disciplinary divides of politics, science and law. In this chapter, I offer an explanation and analysis of the process whereby population and its corollary, genetic health, have become not just markers for wolf recovery, but also discursive flash points in the ongoing wolf debate. In the following section, I analyze a key application of numbers-based population assessment in the case of Wyoming's management for a "buffer" population of gray wolves to ensure continued state management. Finally, I briefly consider the implications of the constraint on wolf populations characteristic of management discourse.

In Chapter 4, I present a contextualized discussion of how discourses characterize wolves according to perceptions of the threats and/or benefits they present. I examine discursive statements from scientific and lay sources that make claims regarding the risks and benefits to human health, ecosystems, big game and livestock posed by wolves. I focus the analysis by examining tensions in gray wolf management in the state of Idaho in particular, where in one portion of the state, livestock operations are coexisting with wolves by limiting their predation on livestock, while in a nearby area, a "predator derby" was recently held, awarding prizes to the person who killed the most wolves.

In Chapter 5, I synthesize the theoretical contribution of this original research by discussing how theories of discursive domination and the human-nature divide interact with and are modified by my study. In addition to considering the implications of this study for rhetorical theory, I explore implications with respect to environmental communication theory/praxis and the practice of wildlife management.

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CHAPTER 2

CHARACTERIZING WHAT WOLVES ARE

The simplicity of the question "what is a wolf?" belies the complexity of its many possible answers. For the purposes of this analysis, there are two primary features in the answer to this question. The first is the question of nomenclature, in particular the Linnaean taxonomic classification of genus, species, and subspecies. While biologists tend to agree that a gray wolf is *Canis lupus*, questions linger regarding subspecies classification for the Northern Rocky Mountain gray wolf as *Canis lupus irremotus*. This distinction remains a notable feature in the conversation about wolves, as it is mobilized rhetorically in divergent ways, which I describe and analyze below. The second component of establishing what a wolf is involves modification, where modification is both adjectival and generally attributive. On a lexicogrammatical level, adjectives describing wolves are plentiful in the data. Under this analysis, 3 adjectival modifications of gray wolves stand out as consequential:

- 1) gray wolves as nonessential experimental
- 2) gray wolves as reintroduced
- 3) gray wolves as Canadian

These adjectival modifications of gray wolves correlate to meaningful attributive/associative modification of what a wolf is, which I argue are present in both written text and images. The associative properties of modifiers 1-3 seem to enable the

"othering" of gray wolves as *foreign*—a general category that has multiple manifestations—and *outside the category of wildlife*. This othering is most prominent on the level of state management, particularly the discourse of state political leaders rather than wildlife managers.

Data Selection

I selected data for this portion of the analysis by examining influential/visible/conflicting (see Table 1.1) discursive artifacts for instances of classification that fell into the categories of nomenclature or modification (either or both of the two classes of modification: adjectival and generally attributive). I isolated discursive artifacts that have the force of policy and/or law; this is not to privilege administrative discourse, but to analyze how administrative discourse regimes characterize the wolf and, in turn, how these characterizations sculpt ecosystems and human-nature relations with political, disciplinary force. Given the study's orientation toward discourse as generally semiotic, I included images in the category of modification. The data I present and analyze for this chapter have been influential, to be sure, but I neither analyze for nor claim particular causation based on these discursive artifacts. To be sure, environmental impact statements, state management plans and official correspondence all exert effects, but the power they wield is at times subtle and diffuse.

I present and discuss discursive data in multiple ways in this chapter in an effort to ground the analysis in "both quantitative and qualitative attention to linguistic details" (Huckin et al., 2012, p. 109). For example, I quantify occurrences in a number of wolf management planning documents of the modifier "Canadian" and I construct a finegrained discourse analysis of an influential letter from Idaho's governor repudiating the state's role in wolf management. This mix of methods responds to the need for discourse analysis to be "interpretive and explanatory" (Huckin et al., 2012, p. 108). For the purposes of this chapter, I ensure the rigor of this interpretation and explanation by coupling numerical accounts of modifiers characterizing the wolf (in particular, "Canadian") with more qualitative analysis of a particular influential statement: a letter from the Governor of Idaho to the Secretary of the Interior repudiating his state's cooperation with federal wildlife managers. This fine-grained analysis of a letter from a state official shows how modification of the gray wolf as a foreign presence (a phenomenon I initially analyze numerically) is functionally operationalized in discourse by those opposed to wolf presence, thereby shedding light on how discourse disciplines the species in ways that are not strictly countable. To be sure, my selection of these discursive statements is simultaneously an exclusion of others. Yet the statements analyzed here that characterize wolves do so with consequence, thereby shaping the human relationship with this animal through the exercise of political power.

Below, I discuss these classification-based and modification-based characterizations of *what a wolf is*. I organize the discussion thus: first, I present and analyze data regarding the species/subspecies taxonomic classification of the gray wolf; second, I present and analyze data regarding the adjectival modification of the gray wolf; third, I present and analyze data regarding the attributive modification of gray wolves in writing; fourth, I analyze data regarding the attributive modification of gray wolves through visual characterization. First, however, I provide a brief synopsis of the chapter's contribution to the study in theoretical terms. The interpretive element of this analysis feeds into the study's overarching claims regarding the superimposition of political borders onto habitat-based bioregions, the disciplining of mobile bodies by enactments of territoriality, and the sustained liminality of the wolf in ecosystems and discursive regimes alike. This chapter describes wolf characterization via a chronological and archaeological (Foucault, 1972) description and interpretation of discursive data. The pattern of characterization across time shows a cascade of effects associated with instability in administrative and scientific characterizations, which correlate to discursive operationalizations of this instability that mark the species as an invading, border-crossing other.

The scientific practice of taxonomy is notably unstable in this case, which destabilizes the species as a deserving ecological presence. The administrative labeling of the species as nonessential experimental may further this instability. Adding to this rather crooked baseline of characterization, the species is othered or cast outside its native territory by its labeling as "Canadian" and "reintroduced." Taken together, this instability is correlated to the marking of the species as a foreign, invading presence. Political and administrative discourse regimes mobilize this characterization of foreignness as they establish sovereignty over territory. In such characterizations, the wolf's very rhetorical mobility as a symbol of otherness may render the wolf more symbol than material presence. The material manifestation of the wolf is ultimately constrained by its very discursive power.

A rhetorical mobility born of scientific and administrative imprecision, then, becomes an instrument of territoriality that encases the rhetorically mobile signified body (that of the wolf, in this case) within discourse. The effect is a disciplining of the species away from ecological presence and toward a symbolic significance whose potency is a function of its very impotence as a bordered body. This disciplining, as I show, is primarily a feature of state sovereignty-focused discourse that grafts the wolf onto a narrative of federal overreach. This cascade of discursive phenomena that border the species as a symbolic object rather than a rhetorical-ecological subject may be catalyzed by the actions of the technosocial network that manages the species. That is, while on the one hand the wolf has been reintroduced—or enrolled in an (ecosystemic) network in Latourian terms—on the other hand, its role is discursively circumscribed from the beginning by its characterization as a nonessential experimental population: an experiment in nonessentialism. This argument about the rhetorical function of characterizations of what a wolf is leads me to examine the human-nature interface by considering human and non-human others alike as discursively and materially bordered subjects. I expand on these implications in the various sections below and in this chapter's conclusion.

Canis Lupus Indistinctus: Binomial Nomenclature and its

Discontents

The data analyzed here are largely uniform in treating the gray wolf as simply genus *Canis* and species *lupus* with no subspecies classification. Yet a significant seam appears upon scrutiny: whereas the 1987 Northern Rocky Mountain Gray Wolf Recovery Plan (Plan) and its 1980 predecessor describe the gray wolf as *C.l. irremotus*, the 1994 Final Environmental Impact Statement (EIS) drops the subspecies designation. This is not an uncommon problem among taxonomists; as Mech (1970) describes, there are "splitters" and "lumpers" among biologists, the former of which tend to name multiple

subspecies and the latter of which tend to lump species together despite morphological and behavioral differences. Discursively and legally, the sometimes-imprecise practice of taxonomy carries significant implications. For the sake of economy, I offer this compressed timeline of gray wolf taxonomy before analyzing this discursive disjuncture and the controversy surrounding it:

- 1) 1959: Hall and Kelson identify 24 subspecies of wolves in North America.
- 1968: Kelsall describes differences between the major groups timber wolves and tundra wolves. Significant differences between these groups, such as ear shape and depth/ thickness of coat make these identifications easier to make in the field.
- 1973: *C.l. irremotus* is placed on the U.S. list of Endangered Fish and Wildlife, pursuant to the 1969 Endangered Species Conservation Act.
- 4) 1974: *C.l. irremotus* is listed under the ESA of 1973.
- 5) 1978: FWS publishes a rule (43 FR 9607, March 9, 1978) reclassifying the gray wolf at the species level (*C. lupus*).
- 6) 1980: Northern Rocky Mountain Gray Wolf Recovery Plan issued. The plan specifies that "taxonomic questions will have to be settled prior to specific plans for re-establishment by re-introduction" (p. iii). The plan calls for the recovery of *C. l. irremotus*, noting "the Northern Rocky Mountain wolf is still considered a distinct species by the U.S. Fish and Wildlife Service (1973, p. 1)" (p. 3).
- 7) 1987: Revised Northern Rocky Mountain Wolf Recovery Plan issued. Taxonomy remains the same as in the 1980 plan, *C. l. irremotus*. The document's title, as with the 1980 plan, does not identify the species as a gray wolf but as a Northern Rocky Mountain wolf.

- 8) 1994: Final EIS issued, paving the way for the reintroduction of gray wolves. The document's title refers to gray wolves. The document's "technical summary" culls subspecific taxonomy from 24 to 5 North American subspecies (p. 4). No literature is cited directly. The final EIS discusses some of the more than 160,284 public comments (Phillips & Smith, 1996) regarding reintroduction, including one that claimed "ignoring subspecific differentiation is not only irresponsible, but also illegal. Reintroducing *Canis lupus lycaon* [Eastern timber wolf] or any other subspecies except *Canis lupus irremotus* into *Canis lupus irremotus* [sic] range would not be legal. This reintroduction lacks scientific integrity" (p. 56).
- 1995-1996: Gray wolves sourced from packs in Alberta, Canada are introduced into Yellowstone National Park (YNP) and Central Idaho (Phillips & Smith, 1996).
- 10) 1997: U.S. District Court for the district of Wyoming finds in favor of plaintiffs Wyoming Farm Bureau Federation et al., James R. and Cat D. Urbigkit, and National Audubon Society et al. (*Wyoming Farm Bureau v. Babbitt*). Notably for this analysis, the Urbigkits, amateur wolf enthusiasts, contend that "Wyoming" wolves, *C.l. irremotus*, would be adversely affected by the reintroduction of what they identify in their *pro se* (written by laypeople rather than legal practitioners) brief as "*Canis lupus occidentalis*." Plaintiffs were a pastiche of typically competing interests, from Farm Bureau to the Sierra Club, yet, they agreed on the assertion that the wolves FWS reintroduced were not native, among other claims.

The managerial trend away from subspecies classification for the gray wolf appears to be supported in much the biological literature (Nowak, 2008). The taxonomic discontinuities present in the data are nevertheless a notable discursive feature, even if they may in part be based on semantic rather than substantively biological distinctions. For example, timeline items 7 and 8 above differ in taxonomy, yet the documents are meant to work in tandem to facilitate reintroduction and recovery of the same animal. In a functional sense, the 1994 EIS deftly manages the taxonomic problems foregrounded in the 1980 plan ("taxonomic questions will have to be settled") by eliminating subspecies classification through silence. If FWS issued its rule reclassifying *Canis lupus* as endangered on the species level (effectively making subspeciation moot) in 1978, though, why did subsequent federal-level documents addressing endangerment and recovery (1980 & 1987) continue to use the subspecies classification? Far from doing so, the 1980 plan, issued 2 years after reclassification of the endangered wolf at the species level, foregrounded the recognition of subspecies *C. I. irremotus* (see 6 above).

The EIS's focus on *Canis lupus* and the subsequent reintroduction of gray wolves to the Greater Yellowstone Ecosystem (GYE) did not end the phenomenon of inconsistent classification of the gray wolf on the part of FWS and other stakeholders. Indeed, the United States Forest Service's online index of species information continues to list 24 North American subspecies of *Canis lupus*, of which *irremotus* is one and *occidentalis* (British Columbia wolf) is another (USFS, 2014). This continuing taxonomic inconsistency is interesting in light of the Urbigkits' (1997, see 10 above) claim regarding the introduction of nonnative gray wolves, which they claimed were *Canis lupus occidentalis*. These *pro se* litigants argued that FWS failed to protect naturally occurring wolves in the GYE, which they claimed persisted in significant numbers, by introducing a nonnative species to the area. They claimed FWS violated the ESA, the purpose of which was in part to ensure the survival of subspecies (Urbigkit, 2008, p. 158). Since *C. l. irremotus* was listed under the ESA because it was "critically close to extinction" (Urbigkit, 2008, p. 158), and since the ESA was meant to preserve listed species, introducing another subspecies in place of a specifically listed subspecies violated the act, the Urbigkits claimed. The continued presence in managerial literature such as USFS's species index, even in 2014, of 24 North American subspecies may tend to support contentions such as that of the Urbigkits et al. in *Wyoming Farm Bureau* (1997).

The district court's decision in favor of the Urbigkits and their co-plaintiffs in Wyoming Farm Bureau (1997) turned on the issue of experimental populations (discussed in the next section of this chapter) rather than classification. That decision, which mandated removal of reintroduced gray wolves from the reintroduction area, was overturned by a federal appellate court in 2000 (Wyoming Farm Bureau v. Babbitt, 2000). No wolves were removed pursuant to the 1997 decision, as litigation to prevent this began immediately after the decision was issued. Ultimately, this taxonomic trouble is perhaps less significant for its biological basis than for its inconsistency and therefore the instability it introduces into the reintroduction and recovery process. This taxonomic instability may position the gray wolf in a liminal space, abetting (re)classifications that work to question the species' right to be in the area in which it was reintroduced. Concerns about the genetic purity of reintroduced wolves, which opponents often claim tend to hybridize with covotes (*Canis latrans*), have led to appropriation and recontextualization of taxonomic distinctions. For example, the Idaho Farm Bureau (1990) has dubbed reintroduced wolves "Canis lupus irregularis" or "woyote" (qtd. in Hardy-Short & Short, 2000, p. 70). Statements like this invoke the notion of genetic

purity versus mongrelism by appropriating taxonomic language and reformulating it to indicate dilution of genetic purity. Taxonomy is perhaps the most basic feature of characterizing an animal: it is the hallmark of scientific precision. Yet in the case of this animal, the base is unstable. This instability, in turn, may aid the destabilization of claims regarding the animal's proper positioning (proper here in the sense of rights, of property) in the ecosystems to which it is native, which include "nearly all habitats in the Northern hemisphere except true deserts" (FWS, 1994a, p. 4).

An Experiment in Nonessentialism: Modifying the Gray Wolf

Gray Wolves as Nonessential Experimental

As I noted in Chapter 1, section 10(j) of the 1973 Endangered Species Act (ESA) allows for the reintroduction of endangered species. Since reintroduction often causes considerable resistance from various stakeholders concerned about property, recreation access and so on (Nie, 2003), section 10(j) was amended in 1982 to facilitate reintroduction (Phillips & Smith, 1996). The amendment introduced the concept of an "experimental" population, a label that reduced an endangered species' status to "threatened" in the portion of its historic range in which it was reintroduced (ESA, 1973, p. 33-34). This legal designation, later combined with concept of a "nonessential population" of a species, was applied to the gray wolf. Rhetorically, labeling a species "experimental," a characterization later coupled with the concept of a "nonessential population," may circumscribe the species' presence as contingent and revocable from the beginning. Functionally, this contingency and revocability is written into the management status of an introduced nonessential experimental population as threatened, not endangered. The former designation allows greater leeway in "take," where "take" is

defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect or attempt to engage in any such conduct" (ESA, 1973, p. 3). To be sure, wolves were better protected under these guidelines than they were before being protected under the ESA. Yet the fact remains that gray wolf reintroduction recast an endangered species as a threatened one and marked the renewed presence of the species as a nonessential experiment, confined in a bordered bioregion which was "wholly separate" (ESA, 1973, p. 34) from natural populations of wolves to the North in Canada and Montana. This separateness, written into the act, implies foreignness and may enable more direct linguistic marking as foreign. In the end, labeling the species—itself not a stable category, as we have seen—a nonessential experiment may catalyze later discursive constraint by political borders rather than bioregion through establishing the animal's foreignness. A hybrid of authority-vested scientific positivism (experimental) and the designation of foreign origin (nonessential), the nonessential experimental designation may further the instability introduced by taxonomic confusion.

Gray Wolves as the Reintroduced Other

The potential pathology of the human relationship with the gray wolf may stem not just from its designation as a nonessential experiment separate from its originary bioregion, but also in part from the very notion of reintroduction. The problem with "reintroduction" of wolves is that "introduction" is used in the literature of conservation biology to indicate human-facilitated introduction of a nonnative species. Introduced nonnative species sometimes wreak havoc on native ecosystems, earning them various designations in the conservation biology literature, including "exotic," "alien," "pest" and "invasive" (Boitani, 2001, p. 123). The use of the term "reintroduction," with its close relation to term introduction, may endorse—whether intentionally or not—classification of the gray wolf as an invader, an alien, or a pest. These terms are used often to discuss gray wolves in the West, and the official discourse of "reintroduction" may in some ways facilitate this sometimes dramatic, even hysterical othering (Plumwood, 2005; Sowards, 2006). This othering mirrors many of the discursive moves made in the heated discourse about "illegal aliens" not belonging (Flores, 2003; Martinez, 1999; Santa Ana, 2002). For example, Margaret Dayton, a Utah state senator, has argued that as gray wolves move into her state from Wyoming, they should be managed as an "invasive species" (Loomis, 2011). When her comment drew guffaws from fellow participants in a natural resources committee meeting, she persisted: "it's not really a laughing matter, although I see some chuckles here. It is not really a native species" (Loomis, 2011).

Dayton's erroneous insistence on the gray wolf's historic range, limiting it to places outside her state's borders, is reminiscent of the spatial play of colonialism that marks human border-crossers as other, illegal and alien. This spatial play mobilizes the imagined—but no less effective for being so—borders of control and violence mark the criminal, transgressing other and sanction violence against her or him. In this case, Dayton appropriates the language of conservation biology—the term "invasive"—to invoke the authority of science in her determination of the wolf's outsider status and her implicit sanction of violence against it on the grounds of its invasiveness. The term invasive mobilizes the discourse of war (Larson, 2005) in much the same way as does the term alien (DeChaine, 2009; Marciniak, 2006; Nevins, 2002; Ngai, 2003). In both cases, alterity (and with it, alien-ness and invasiveness) is constructed as a threatening force, personified by workers or wolves, whose incursions into colonial territory are militated against by regimes of territorial power. The term "alien" and the term "invasive" invoke, respectively, the authoritative discourses of immigration law and conservation biology; these discourses resonate with martial meaning.

Gray Wolves as the Canadian Other

The discursive construction of an endemic species as foreign, perhaps enabled by taxonomic instability and the nonessential experimental designation, is perhaps most simply evidenced through the modifier "Canadian." The use of this modifier emphasizes a perception of the gray wolf's foreignness and therefore its outsider status. Table 2.1 displays the use of this modifier.

The table shows what the word modifies in selected sources. Sources numbered 1 through 6 in the table have the force of administrative policy or law; sources 7 through 8

Artifact (date)	Canadian (document occurrences)	Concordance cluster 1 (number of occurrences)	Cluster 2 (n=)	Cluster 3 (n=)
1) EIS (1994)	23	Authorities (5)	Populations (5)	Wolves (4)
2) Wyo Farm Bureau (199	7) 19	Wolves (17)	Officials (1)	Populations (1)
3) Wyo Farm Bureau (200	0) 3	Wolves (3)		
4) ID State Wolf Plan (200)2) 1	Wolf(1)		
5) UT State Wolf Plan (20	05) 32	Journal (14)	Circumpolar (7)	Field (5)
6) WY State Wolf Plan (20	011) 4	Population (2)	Wildlife (1)	Journal (1)
7) BGF 2013	35	Gray (wolves) (19)	Wolf (3)	Wolves (2)
8) BGF 2014	6	Gray (wolves) (6)		

Table 2.1. Concordance Data for "Canadian"

The use of "Canadian" as a modifier in influential legal and policy artifacts. Clusters are right side bigrams (the word that appears to the right of "Canadian"). Concordance data generated via AntConc. are communications from a private entity contracted with a state government to that state's legislature. For sources 1 through 6, the discursive consequentiality and influence wielded by these documents renders their statements characterizing wolves relevant to this study's investigation. Sources 7 through 8 emanate from a group whose purpose is to stop wolves from moving into the state of Utah; as such, these statements resonate with the study's attention toward "othering" of wolves through discursive characterizations and the implications thereof.

Using the application AntConc, I analyzed these discursive artifacts for usages of the word "Canadian." Concordance clusters show words paired (right side bigrams, showing what noun "Canadian" modifies) with "Canadian" and their frequency. I complement this raw information with a discussion of notable discursive features from recent statements by political entities from Idaho and Utah (items 7 and 8 in Table 2.1) that show divergent orientations toward wolves that either accent or mute gray wolves' possible ancestral origin across the Canadian border. Artifacts 1-3 have been discussed in detail above; artifacts 4, 5, and 6 are included because they articulate state wolf management policy and because they evince an increasing use of "Canadian" to modify wolves over time; artifacts 7 and 8 are representative of lobbying groups' relationship with generally antiwolf state legislatures.

First, I will briefly interpret the raw data in the table, then I will analyze these notable discursive features. Table 2.1 shows patterns in the usage of the modifier "Canadian" across source type. Source types are state wildlife management agencies, court decisions, and political lobbying/special interest groups. All have been influential in shaping wolf policy. Generally, state wildlife agencies, as evidenced by state wolf

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management plans, do not foreground the foreign origin of wolves. Utah's wolf plan uses "Canadian" 32 times; Wyoming's plan uses it 4 times, and Idaho's plan uses the modifier only once. Idaho's lone usage refers to wolves located in Canada, not to wolves reintroduced to the United States. Utah's plan uses the modifier most frequently of the 3 states (14 times); it does so when citing literature regarding wolf behavior, morphology, range and the like. Wyoming's plan, like Idaho's, uses the term in relation to wolves located in Canada and in citing sources rather than in discussing the particulars of wolf reintroduction or recovery. Wyoming's plan uses the term in discussing trends in Northern Rocky Mountain wolf populations and to cite sources. Ultimately, state wolf management plans do not appear to foreground to any identifiable extent the Canadian origin of reintroduced wolves.

The two court decisions, however, show a marked difference in their use of the modifier. The 1997 decision that called for removal of reintroduced wolves foregrounded the foreignness of reintroduced wolves, suggesting "wolves from Canada are of a distinct subspecies." It foregrounds the presence of extant pocket populations of *C l. irremotus* and the potential harm done to this population's genetic integrity by reintroduced wolves from Canada. The 2000 circuit court reversal of the 1997 district court decision uses "Canadian" far fewer times, as it aligns with FWS's contentions regarding the morphological and behavioral indistinguishability between subspecies and the ecological irrelevance of any such distinction. The Utah-based lobbying group Big Game Forever, or BGF, uses the modifier extensively, as the table shows.

BGF is a lobbying organization that deals with wildlife management. The organization has contracted with the State of Utah for the past 3 years to engage in

lobbying activities in Washington, D.C. designed to "wrest control of wolf management from federal hands" (Maffly, 2013a). In particular, the group seeks to stop wolves from being reintroduced in Utah, despite the lack of any federal plans to do so or any substantive movement in that direction. For its efforts, the group has received \$800,000 in Utah state dollars (Maffly, 2013b). The mission of Big Game Forever, in its own words, is in part to allow "hunters and fishermen from around the United States to speak with one united voice to promote the protection of abundant wild game and the right of sportsmen to participate in outdoor recreation including hunting, fishing and on-theground conservation efforts" (2014, p. 3). The statement compactly identifies the organization's purpose and simultaneously telegraphs ideology through presupposition and implication. The presupposition that participation in outdoor pursuits such as hunting is primarily a masculine endeavor is carried by the term "sportsmen." The statement implies that the primary sports are hunting and fishing, excluding through silence other sports. The frequency of use of the word "united" evinces ideographic association between BGF's mission and values enshrined in national identity, such as "right." With respect to gray wolves, the primary concern of this analysis is BGF's highly visible and consistent use of the phrase "Canadian Gray Wolves," all words of which are capitalized in its 2013 and 2014 communications to the Utah legislature. Such capitalization seems to underscore a strong lexical partnership between these elements; in addition, capitalization explicitly claims the propriety of the name according to the capitalization rules of edited American English. Although the document uses this phrase almost exclusively when discussing wolf reintroduction, the Canadian gray wolf has never been and is not now a recognized subspecies. The closest recognized subspecies to BGF's term is the British

Columbia gray wolf (Snyder, 1991).

Moving beyond this baseline of BGF's erroneous characterization of gray wolves in lay taxonomic terms, note the parallelism of this statement:

The decline of elk, moose, deer and other wildlife populations and the rapid growth of Canadian Gray Wolf populations in the Northern Rockies has been an issue of growing concern in the Western States.

This parallelism is notable for 3 reasons. First, the parallelism syntactically links two phenomena that are not necessarily linked. That is, stochastic factors such as climate change and smaller-scale variation in available resources can dramatically affect ungulate populations and predator populations alike, as much as the basic elements of the predatorprey cycle (Bergstrom et al., 2009). Moreover, hunter harvest of elk has increased since wolf reintroduction in Utah's neighboring state of Idaho (Bergstrom et al., 2009, p. 995), indicating elk herds can flourish in the presence of wolves (Idaho has far more wolves than does Utah, where no wolf packs have been confirmed). For BGF, however, correlation masquerades as causation, catalyzing this unsubstantiated claim. Second, the dual subject and singular verb disagree in number. Two grammatical subjects-decline and growth—are treated as one. The ready linkage of events in a causal chain (decline of moose, etc. and the "rapid growth of Canadian Gray wolf populations") is thus strengthened by treating them grammatically as a single subject. Third, and perhaps most significant, is the implicit exclusion of the wolf from the category of wildlife. This is a basic refutation, reinforced grammatically and semantically, of the incontrovertible fact that gray wolves are wildlife. The animal was protected and reintroduced under tenets of the ESA, which calls for the protection of fish, wildlife and plants. Since the gray wolf is neither a fish nor a plant, it is therefore irrefutably wildlife under the ESA. Moreover, the

species has been managed in large part by the U.S. Department of Fish and *Wildlife* Services since its listing in 1974.

Nominal markers of a generally alarmist tone abound in the BGF (2013) report to the Utah legislature. Notable in this respect are "influx" and "failure" from 8.2 and 8.3. the noun "influx" (OED, 2014) describes "the act or fact of flowing in; an inflow, as of a physical fluid." This association with fluid, coupled with the fatalistic, not-if-but-when sense of being overwhelmed by an impending entry into one's territory, is remarkably similar to narratives discussing the threat of immigration into the United States, for example the fear of a "brown tide" (Santa Ana, 2002) of in-migration from South of the U.S. border. The noun "failure" is central to BGF's assessment of the current state of wolf management, alternatively perceived by many biologists and laypeople as a conservation success. This failure, in turn, "has hurt wildlife populations and hard working livestock producers" (2014, p. 3). This phrasing is potent both in its arrangement of groups of people and groups of animals. The human group of federal wildlife managers, who have failed, is placed in opposition to the group of ranchers, who have worked hard and yet still have been hurt by the failure of their counterparts. Animal groups are similarly configured: the failure is linked to wolves; wildlife (a category that excludes wolves in BGF's configuration) has been hurt. This Manichean configuration of opposing groups elides the nuance of a complex ecological situation wherein wolves, as wildlife, perform a vital role in increasing and maintaining biodiversity, the most significant marker of ecosystem health (Fortin et al., 2005).

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Attributing Alien-ness: the Operationalization of a Nonessential Experiment

The modifications of wolves described above—nonessential experimental, reintroduced and/or nonnative, and Canadian and/or foreign—have been operationalized in discourse among state political leaders who use these designations to underscore the foreignness of gray wolves and to associate them with an overreaching federal government. This association ranges across rhetorical tropes and other sociolinguistic practices. I use "attributive" in a general sense rather than a formal grammatical-syntactic sense: for this analysis, attribution is an element of characterization wherein traits and characteristics (both social and biological) are attributed to wolves. In casting this wide net, I follow the Oxford English Dictionary's definition of attribution as an ascribed quality or character (2015). Of particular interest to this analysis is the way ascribed qualities of wolves from a biological perspective, such as their extended presence of 750,000 years in North America prior to human extirpation or their function as a predator, are inverted in political discourse (e.g., 750,000 years of sustained presence in Rocky Mountain ecosystems is compressed to the 20-year period of wolf reintroduction).

To show these discursive phenomena, I discuss attributive modification of wolves at a key moment in the wolf debate: the autumn of 2010. The scene is Idaho, where after having had control of wolf populations for just 1 year, 4 months and 3 days, Idaho and neighboring Montana were compelled to step away from wolf management after a federal district court for the district of Montana overturned FWS's 2009 delisting of gray wolves in Idaho and Montana (*Defenders of Wildlife v. Salazar*, 2010), nodding to plaintiffs' claim that the delisting move had been based on political machinations rather than biological evidence.

Delisting wolves enables state management; when they are listed or relisted under the ESA, the federal government becomes the primary manager. State officials often resent the loss of control associated with federal management, particularly when management authority oscillates between state and federal entities, as is the case here. Since 2008, FWS has consistently moved toward turning management over to the several states, citing wolves' satisfactory recovery under the guidelines of the reintroduction plan (FWS, 2009, 2012). (Chapter 3 provides a more detailed account of the several decisions in this process.) The artifact presently under analysis is an October, 2010 letter from Idaho Governor C.L. "Butch" Otter to then-Secretary of the Interior Ken Salazar in which Otter repudiates his state's continuing cooperation with federal management of the gray wolf under the ESA. The letter was a strong statement of resistance to the ruling's perceived abridgement of states' right to manage wildlife.

The authority to allow and/or ban the presence and circulation of wolves through federal and state lands in Idaho appears to be a key marker of state power for Otter. Indeed, Otter recently stressed in a state of the state address the importance of state wolf management in Idaho, lauding the state's ability to "take back control of these predators from our federal landlords" (2014). Assertions of state sovereignty such as Otter's achieved a pinnacle 6 months after Otter's 2010 letter was sent. In May, 2011, Idaho representative Mike Simpson and Montana Senator Jon Tester attached a one-paragraph rider (the term "rider" denotes a provision attached to a bill that is unrelated to the bill's substantive content) to the federal budget bill that mandated enforcement of FWS's 2009 delisting in Idaho and Montana and attempted to forestall any further litigation on the

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matter (Bruskotter, 2013). The move was unprecedented: never before had congressional action delisted a species. While Otter's letter is perhaps not the proximate cause in the budget bill rider's creation, it is an important artifact in the discourse of wolf management, as it is connected to the current state of wolf management in Idaho, where 466 gray wolves were killed by humans in the past year (FWS, 2013, p. i). Idaho has used hunts to cull wolf populations, and in addition has cooperated with federal agencies such as the United States Department of Agriculture's Wildlife Services to lethally control wolves in the state (FWS, 2013).

Ironically, such efforts at control may increase the species' fecundity and fracture pack structures, thereby increasing the odds of wolf depredation on livestock (Wielgus & Peebles, 2014). In another ironic turn, Otter's complaints about federal overreach, articulated in his October, 2010 letter that I analyze below, may have catalyzed federal overreach: Tester and Simpson's manipulation of the political process to delist gray wolves—a one-paragraph statement that does not cite the ESA or other law—has been challenged as an unconstitutional incursion of federal legislative power into the interpretive purview of the judicial branch (*Alliance for the Wild Rockies v. Salazar*, 2012). The rider circumvented the process by which delisting is to take place: not according to legislative fiat, but based "solely on the best scientific and commercial data available" (ESA, 1973, p. 5).

As a particularly resonant enunciation in the broader conversation about state versus federal power, Otter's letter is firmly imbedded in the discourse of states' rights to manage wildlife. It operates on an emotional register, closely aligns gray wolves with foreignness and undue incursion by an overreaching political force, and *rhetorically*

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inverts key attributions of what wolves are, including predator/prey, invasive/endangered and local/distant. It thus operationalizes the modifications discussed above and extends the discursive practice of "othering" the wolf, marking it as a foreign presence incurring on state territory. This use or "operationalizing" of modifications is generally attributive rather than attached to a particular modifier; it is thus better suited to qualitative discourse analysis for rhetorical features rather than a quantified account of particular usages of a term. Notably, Otter's letter does not characterize gray wolves in his state as "Canadian," which I have advanced as a way to index the association of foreignness with the wolf. Yet, as I argue, Otter's letter squarely characterizes the wolf as an intruder and a foreign presence. Including a fine-grained analysis of this discursive artifact, then, complements the data presented and analyzed above by showing how characterizations can perform the work of othering without using a particular modifier such as "Canadian." The length of Otter's letter belies its potential influence as a rhetorical statement: we see here how an official voice with power over one of the states that features prominently in discussions about wolf management characterizes wolves.

Butch Otter's Rhetorical Inversions

The typical definition of an inversion is simply a turning upside down. For current purposes, an inversion is a radical shift in the respective relations between opposed social actors and the attributions that attach to them. At times, these shifts are radical enough to look like transpositions: local for foreign, for example, or invasive for endangered. As Wolin (2008) has argued, political inversions, such as the silent totalitarianism the author attributes to the purportedly democratic American political system, occur when systems

"produce a number of significant actions ordinarily associated with [their] opposite" (p.

46). These inversions attribute actions and characteristics to social actors through

association rather than through proof of deed.

The first paragraph of Governor Otter's letter is as follows:

In Idaho, wolves serve as a constant reminder of how far we have strayed from the Founding Fathers' original intent of a national government with limited, enumerated powers bestowed by the states. Wolves were forced on Idaho in 1994 with no regard for the impacts the species would have on our people, wildlife and livestock. While some herald the introduction of wolves and the current population as a biological triumph, history will show that this program was a tragic example of oppressive, ham-handed 'conservation' at its worst. Idahoans have suffered this intolerable situation for too long, but starting today at least the State no longer will be complicit (Otter, 2010).

The letter begins with an invocation of the constitution, citing the presence of wolves as a mnemonic for federal overreach. Otter suggests the "Founding Fathers' original intent" was a national government with powers "bestowed by the states," and he identifies wolves as a "constant reminder" of how far the nation has strayed from its foundational intention, which he implicitly identifies as the desire to create a scattered pastiche of sovereign states that would imbue the federal government with a limited range of power. There are a number of notable features in this opening paragraph that have an inverting effect. After drawing a typical states' rights distinction between the constitutional moorings of the country's governance and a perceived metastasis of centralized federal power, Otter squarely identifies the wolf, a species endemic to his state (FWS, 1987), with overweening federal power (through the process of wolves' being "forced" on Idaho), aligning a local predator with a disembodied and distant seat of power. Otter later solidifies this alignment when he characterizes gray wolves in Idaho as

"your wolves," claiming "we showed, during delisting, that we are responsible stewards of all our wildlife, including *your wolves*." The wolf's attributive alignment with an oppressive federal government endows the wolf with rhetorical, if not biological, force by inverting the categories of local and distant. That is, through Otter's mnemonic association of the wolf with invasive government power, he grafts the wolf onto the distant and disembodied, yet oppressive and powerful, agent of his state's victimization.

In a sense, this is merely a version of the time-honored scapegoating (Frazer, 1951) of wolves, an easy symbolic move. Yet this lamination of a symbolic wolf onto a master narrative of an oppressive federal government does not just draw memory traces from mythic lore. In addition, it foregrounds the wolf's relatively recent reintroduction, identifying it as invasive rather than endemic, just as is the federal government, from Otter's perspective. This rhetorical construction of invasiveness adds to the letter a register of righteous indignation at an undue incursion on Idaho's sovereign rights by a wolf-government hybrid and invokes the martial metaphors associated with determining which species belong in a "native" ecosystem and which do not (Larson, 2005; Rodman, 1993). This symbolic wolf-government hybrid has, of course, material basis: there are wolves in Idaho. For Otter, however, the wolf-government hybrid is his state's oppressor, a hybridized rhetorical actor. The undeniable presence of biological wolves in Idaho, the very impetus for this letter, is symbolically subsumed by the wolf's manifestation as a mnemonic for government oppression, a wolf-government hybrid.

Otter's inversion of the wolf's biological status (from a resident of 750,000 years to an invasive transplant) is metonymic: the federal government is a wolf, and Idaho has become prey, ensnared in the insidious wiles of wolf restoration. This inversion also

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refutes time, collapsing the wolf's millennia of biological presence into the moment of the wolf's reintroduction by humans. The wolf is thus decoupled from its biological context and aligned with the oppressive weight of hegemonic force. Otter's simultaneous elision of biological history and celebration of the "founding fathers" intent collapses the complex warp and woof of history into an ideologically-inflected construction of humanistic "intent" on the part of the "founding fathers." Although what is happening to the wolf as it is grafted into the context of a hegemonic other has multifaceted rhetorical implications, the Idaho Governor is making a simplistic associative move. The letter characterizes the government-wolf hybrid as a chimerical beast devouring the "founding fathers" intent," transgressing the bounds of space and time just as it transgresses state boundaries: with ease and with purpose.

In the letter's second sentence, Otter claims "wolves were forced on Idaho in 1994 with no regard for the impacts the species would have on our people, our wildlife and our livestock." This statement extends the attributive association of the wolf with overweening federal power. It further cements this attribution by leaving the wolf out of the category of wildlife. Using words like "impacts" and "species" objectifies the animal and sends the wolf into the linguistic terrain occupied by discourse on invasive species, with its "militaristic and combative metaphors" (Larson, 2005, p. 495). Further, this attribution appropriates the language of biology, working to foreclose biological discourse as a tool for further wolf protection. This sentence also furthers the identification of Idaho as a victim of the wolf-government hybrid. The letter carries an emotional register, which may contribute to its simple configuration of power alignments wherein Idahoans have fallen prey to "ham-handed 'conservation' at its worst" and they

have "suffered this intolerable situation for too long." The "ham-handed" federal government is violating the constitutionally granted sovereignty of this independent, individualistic Western state, and the instrument of this violation is the wolf. Aligning conservation with ham-handedness and encasing the word conservation in scare quotes frames conservation as a futile and wrongheaded game of misguided ecological thinking.

Although Otter demarcates stark and simplistic power dynamics, devoting the entire first paragraph to identifying Idaho as prey to the government and its wolves, the rhetorical upshot of the paragraph has much more complex implications: a symbolic nullification of wolves as a biological presence. The wolf is characterized in purely rhetorical terms. Although it roams Idaho's mountains and valleys, it is not part of the "wildlife" of Idaho. Instead, it is but a "species," a disembodied symbol. Even if Otter is arguing here for the ability to manage the living, biological wolf, the wolf he is addressing in this letter (and he is indeed addressing the wolf as he addresses Salazar, under the letter's pathos-driven rhetoric of victimization) is a dead letter. This elevation or transposition of the local, biological wolf to a distant and purely symbolic wolf sets up a dramatic tension between this treatment of the wolf and the romanticized frontier individualism that forms the letter's emotive core. Further, the collapse of time, the inversion of predator/prey attributions, and the confounding of space implied in the local/distant inversion all signal abdication of state responsibility for wolf management, even while emphasizing the state's ability to "exercise our sovereign right to protect our wildlife" (Otter, 2010).

Visually Characterizing What Wolves Are

As I have shown, written texts such as Otter's letter, environmental impact statements, and court decisions characterize wolves consequentially: they often influence policy or have the force of law. Images also characterize what wolves are, though they do not shape policy in the same way. Images of wolves, too, are an important link in the complex chain of characterization. In official communications such as wolf population monitoring reports and state wolf management plans, images of wolves are featured; selection and presentation of these images may be inflected with ideology. They may function as visual aids to complement orientations toward wolves' presence described in the documents in which they appear. Their meaning potential may not always originate in their selection, but rather in the way in which they might be interpreted. Hence, their analysis is one way to respond to the research questions with which I began this study. Table 2.2 summarizes the characterization of what wolves are in cover images of official communications about wolves.

The data set in Table 2.2. is similar to that of Table 2.1. I only include in this data set documents featuring images of wolves, which removes the Wyoming Farm Bureau court cases from this data set. Here, I include each of the state wolf management plans featured in Table 2.1, and I also include Big Game Forever's legislative reports, as they feature images. For each artifact, the images typically appear at or near the beginning of these documents, visually setting the tone for the written component of each text. As Barthes (1973, 1977) and many others (e.g., Hariman & Lucaites, 2011; Kress & Van Leeuwen, 1996; Van Leeuwen, 2008) have argued, images stimulate viewer interpretation and call up associations about the social and cultural position of what or

		Viewing Angle
Artifact (Date), Image Type	Color	H=horizontal angle
	(number of wolves)	V=vertical angle
Recovery Plan (1987), pen and ink copy	Black & white (2)	H=frontal
		V=neutral
EIS (1994), photograph	White (1)	H=frontal
		V=neutral
Idaho Wolf Plan (2002), no image		
Utah Wolf Plan (2005), photograph	White/gray (1)	H=frontal
		V=neutral
Wyoming Wolf Plan (2011), photograph	Black/dark gray (1)	H=side view
		V=neutral
Wyoming Plan addendum (2012), photograph	Black (1)	H=side view
		V=above
Wyoming Population Monitoring Report (2012),	Black (3)	H=from behind
photograph		V=above
BGF legislative report (2013), no image		
BGF legislative report (2014), photograph	Black (1)	H=frontal
		V=below

Table 2.2. Image Type and Features in OfficialCommunications about Wolves

whom is imaged. As potentially powerful political statements, images can organize particular orientations toward what is represented (Hariman & Lucaites, 2011).

Of the many features of images that might affect characterizations of wolves, I focus on 3 primary elements: the color of wolves in the image, the number of wolves in the image, and the angle of the image horizontal angle (H)=frontal view, side view, or from behind; vertical angle (V)=viewed from above, viewed from below, or neutral). I quantify these in Table 2.2; then, I offer further discussion of these and other important features, such as background.

Theorizing Visual Characterizations

Analyzing an image often requires the sort of separation of elements I have done here. Yet, we see and process images organically, subconsciously and often instantaneously. This separation for the purposes of analysis, then, may in some ways be artificial. Yet, the separation of various elements allows analysis of images in their particularity (Kress & Van Leeuwen, 1996). It is possible that presuppositions corresponding to ideologies are written into images by their creators, read from images by their interpreters, or both. Determining whether and how this happens is necessarily selective and interpretive, but as Table 2.1 shows, certain trends—such as a tendency toward using black wolves and wolves in greater number in more recent years and among states/organizations generally hostile toward wolves—are borne out in this visual data, a process that may catalyze the othering of wolves and their ejection from notions of what belongs in ecosystems.

Black is the New Gray: Coloring Wolves

Mech (1970) identified a wide variation in coat color, or pelage, among gray wolves, from "white through cream-colored, buff, tawny, reddish, and gray to black" (p. 16). Mech (1970) concluded that gray is the most common coat color, as the species' name implies. As Table 2.2 shows, BGF and the state of Wyoming use black wolves to represent the gray wolf. Particularly when a single image is used in a document as a cover photo to set the tone for the document, this choice seems consequential. Black wolves almost certainly exist in the territory of Utah and Wyoming, and gray wolves with a black coat are no different from any other gray wolf from a functional perspective. Yet in images such as these, color may have resonance beyond merely representing a particular specimen as an emblem of a species. Among humans, color is a marker of race and ethnicity (though of course not the exclusive one and not one that operates at all simply). When characterizing others visually, color is an issue, as Van Leeuwen (2008) has described. I do not mean to suggest here a direct link between racism, a complex problem in human societies, and the depiction of animals, though this "dreaded comparison" has been explored productively (e.g., Speigel, 1998). Even if race is not a factor in the visual characterization of wolves, color is one for this analysis.

Through choices in coloration of wolves, these images may provide visual evidence of othering, which often sanctions violence and control. The exclusively black coloration of gray wolves in this sample among political entities (the state of Wyoming, whose wolf policy has recently been deemed by a federal court as violating the ESA, and BGF, which minces no words in declaring its enmity toward wolf presence) seems significant in this light. The timeline involved here is also an interesting element: as states seek, yet are often denied control over wolves (as is the case with Wyoming now, where federal control is once again in place after the recent District Court decision), the gray wolves pictured get darker, more numerous, begin participating in predation, and are often shown in a full run, viewed aerially as if from a pursuing helicopter. Many of these, of course, are images that reflect typical wolf behavior. Yet the movement toward darker, more and predating wolves coincides temporally with the denial of state control in the face of rising wolf populations.

These shifting orientations that become more bellicose over time based on changing background conditions are strikingly parallel to border discourse involving people. Orientations toward immigrant presence and the labor done by immigrants change with time and according to economic conditions: when the economy booms, the "American Dream" is celebrated as an ideal and cheap transnational labor is welcomed; when the economy wanes, however, dominant attitudes toward immigrant others shifts toward distrust, hatred and occasionally violence (Flores, 2003; Santa Ana, 2002). Considering the placement of these images in time, we can chart a similar shift in orientations, using color and number of wolves as an indicator. As states such as Wyoming (2012) and political organizations such as BGF (2014) become more concerned about wolf population numbers and continued federal control over them in the absence of satisfactory state plans (Wyoming) and sufficient wolf numbers to warrant delisting (Utah), images seem to mark wolves as an object of control and domination. This is in contrast to earlier images that picture white wolves, as in EIS (1994) and Utah (2005), and which feature a single wolf. Indeed, in the Utah wolf management plan cover photo (2005), the single white wolf is in a state of repose, paws resting in front, and the animal occupies the whole frame, facing forward and looking entirely unperturbed. Later, wolves are pictured as pursued, looking over their shoulder (Wyoming, 2012), sprinting through snowy fields as if pursued aerially, or furtively gnawing on an ungulate carcass (Wyoming, 2012).

Angle of Attack: Viewing Wolves From on High

This apparent urge to assert authority over gray wolves—perhaps symbolized by their increasingly darker color, higher number, running away from the camera and out of the frame—is also evident in the vertical angle (above, below or neutral) from which the image is displayed. Kress and Van Leeuwen (1996) interpret the vertical angle in particular as an indicator of power relations. While these scholars consider images of humans, I suggest that the importance of the vertical angle holds in images of other "others," such as animals. For Van Leeuwen (2008), "to look down on someone is to exert imaginary symbolic power over that person" (p. 137). Notably, images 6 and 7,

both emanating from Wyoming in the year 2012, picture wolves viewed from a high angle. The year was an eventful one for wolf management in Wyoming: after being denied delisting and therefore state control by the 2009 FWS final rule and the subsequent 2011 congressional rider mandating its enforcement, Wyoming drafted an addendum emphasizing—though not quantifying—its commitment to managing for a "sustainable" population. The addendum was released in March, 2012. Upon reviewing the addendum and deeming it a "satisfactory regulatory mechanism" for state wolf management, FWS delisted the species in Wyoming in October, 2012. The hunt during which wolf 832f was taken (see Chapter 1) began immediately after, and aggressive state wolf control continued through September, 2014, when the delisting was overturned under a "capricious and arbitrary" administrative rules standard by a federal district court.

The state of Wyoming's communications about wolves reinforce a sense of control over wolves by picturing them as below the camera and on the run. These wolves are black. In contrast, none of the images of white wolves in this sample show the animal from a high camera angle. Images of white wolves are level with the camera in this sample. Whereas Wyoming's movement toward control of wolves in these documents is associated with down-angle (above the animal) views of wolves, Utah's BGF (2014) takes a different tack, showing a black wolf above the camera, its gaze trained downward. This difference in angle may correspond to a difference in management status: BGF may see wolves as controlling the state rather than the other way around, resulting in a reversal of power relations. The black wolf pictured by BGF is perhaps a visual corollary of Butch Otter's wolf-government metonymic hybrid: just as Uncle Sam fixes an unflinching gaze on the would-be recruit, the black wolf in the BGF image looks down

on the audience, impervious to its control.

Conclusions

Discursive characterizations of the wolf carry implications both rhetorically and in terms of wildlife management. These implications extend to power relations between states, federal agencies and other stakeholders such as wolf advocacy groups. The wolf debate, one of the most intractable issues in wildlife management, is also one of the most prominent markers of states' rights discourse in the study area. As Otter's letter shows, discussions about wolves readily integrate the ideographs such as liberty, freedom and the like. As the instability of wolf taxonomy and the frequent use of "Canadian" as a modifier to refer to wolves that do not originate in Canada tend to show, wolves are often characterized as an invading other whose presence should be militated against. Ultimately, the wolf, as an ideograph that mobilizes passionately felt sympathies and antipathies and as a profound ecological presence, plays a role in the contested terrains of the new West.

In this chapter, I have presented and discussed data from the study regarding the characterization of *what wolves are*, both from the naming standpoint of taxonomy and the adjectival and attributive modification of wolves, present in both written text and image. Doing so has addressed the research questions identified in Chapter 1. I have claimed that destabilized taxonomy, modifiers such as experimental, nonessential and Canadian, along with the operationalization of this taxonomic and modifier-based characterization, combine to confine the wolf within political territory rather than its bioregional range. Characterization present in images adds to the othering of wolves,

which in turn may sanction discipline, control and violence exerted along the lines of political borders, whether ideological or physical.

Characterizations of gray wolves such as protected, trophy game, predator, or an agent of the federal government exert the disciplinary force of spatial, physical containment as a function of their rhetoricity. For Foucault, discipline is a "specific technique of a power that regards individuals both as objects and instruments of its exercise" (2007, p. 170). This technique organizes bodies into "small, separate cells, organic autonomies, genetic identities and continuities, combinatory segments" (Foucault, 2007, p. 170). The discursive traces of this process in the gray wolf's case reveal multiple confinements that may work to undo the systems thinking (i.e., the need for predators to balance ecosystems) behind the gray wolf's reintroduction. The concept of an "experimental" population, particularly when coupled with "nonessential," circumscribes the species' presence as contingent and revocable from the beginning. Paradoxically, gray wolf reintroduction down-listed an endangered species into a threatened one and marked the presence of an arguably essential species as a nonessential experiment, confined in a bordered bioregion which was "wholly separate" (ESA, 1973, p. 34) from natural populations of wolves to the North in Canada and Montana. Labeling the species nonessential experimental and separating it "wholly" from its native terrain may catalyze later discursive constraint by political borders rather than bioregion.

The experimental-nonessential designation is thus a pathological rhetoricalmaterial discursive confinement of the gray wolf. This pathology is exacerbated by the very notion of reintroduction because the use of the term "reintroduction," derived as it is from the term introduction, may endorse characterization of the gray wolf as an invader, an alien, or a pest. These problematic instabilities in terms of taxonomy and management status coincide with the species' rhetorical mobility as a symbol of invading foreignness (Canadian wolves) and federal government overreach. The material manifestation of the wolf is ultimately constrained by its very discursive power. That is to say, the wolf's ready application to symbolic characterizations of otherness that ultimately have little to do with it as a species render the wolf more symbol than material presence.

Paradoxically, the species' persecution as a material presence—coupled of course with its preservation in some areas such as YNP—continues even as its discursive characterizations confine it within symbolicity. The simultaneity of the rhetorical dead-end of discursive characterizations and the material dead-end of wolves such as 832f is noteworthy because it casts into stark relief the possibilities and limitations of this prominent species as a bridge between humans and other animals and between symbol and material. Based on my analysis of characterizations of what wolves are, there remain possibilities for productive challenging of these divides, but they are not generally pursued by the characterizations analyzed here. In the study's concluding chapter, I further explore these implications.

CHAPTER 3

CHARACTERIZING WHAT WOLVES DO

In November of 2014, visitors to the Kaibab Plateau area of Grand Canyon National Park reported seeing a wolf, the first one in the area for over 70 years (FWS, 2014). DNA analysis of scat samples revealed that this female gray wolf had traveled at least 450 miles from her likely birthplace in the Northern Rocky Mountains (Gannon, 2014). Long-range roaming such as this wolf's journey is a common occurrence among wolves. This process is known as dispersal, and it is a defining feature of this highly mobile species. Dispersal happens for a number of reasons, the most common of which are to locate food or to find a suitable mate (FWS, 2014). Among populations of wolves, movement such as this is vital for ensuring long-term genetic viability (Boyd & Fletscher, 1999). In the absence of effective dispersal, wolf populations wither, as has been the case with the genetically isolated gray wolf population of Isle Royale National Park in the great lakes region of the Northern U.S. (Mlot, 2014).

In the study area of the Rocky Mountain region, gray wolf breeding and dispersal figure prominently in decisions regarding the conservation status of the species. The shift from federal to state management is based on the species meeting or exceeding minimum population numbers (under the 1987 recovery plan, 10 breeding pairs and 100 individuals in the 3 recovery zones of YNP, Central Idaho and Montana), thereby warranting removal of this nonessential experimental population from the list of endangered species

and justifying state control of the recovered species. State wolf management plans must specify measures to ensure populations above minimum recovery numbers. In addition, state wildlife managers must make clear how their policies will allow wolves to disperse. Since dispersing wolves are more likely to die from human-caused mortality such as hunting (Fletscher et al., 1997), this aspect of state management plans is particularly important, as all state plans call for lethal control of wolves through hunting, trapping, poisoning, aerial pursuit and other means.

Once gray wolves were reintroduced to the Rocky Mountain region, their actions were several. These actions were predictable, though the species' success eclipsed the predictions of some (Phillips & Smith, 1996; White & Garrott, 2005). Upon reintroduction, wolves reproduced, formed packs, and expanded into a rangewide, if fragmented, population, termed at times a "metapopulation" (FWS, 2012). Dispersal catalyzed this process. Considering the dynamics of this process and how they have been represented in discourse, this chapter will analyze discourse about *what wolves do*, focusing on the process of population growth through breeding and the process of dispersal (and with it the distribution of wolf populations across a range). These two categories of action are crucial aspects of what wolves do to persist, and they are prominent features in discourses that characterize the animal. These characterizations of the animal based on population and dispersal vary across stakeholder groups and across time, making them an important feature to consider through analyzing discourse.

The predatory habits of wolves, another important and controversial aspect of what they do, will be discussed in Chapter 4. Because dispersal and breeding take place across a wide area, the political, economic and social frictions discussed thus far between

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various stakeholders are brought to bear as wolves move across territories defined politically by humans. Discourse wields disciplinary force over individual wolves and wolf populations as they breed and disperse; these actions are treated in both biological and social terms—and amalgams thereof—in the data set. The data set for this chapter consists of important policy documents regarding wolf reintroduction and recovery, along with two influential court decisions holding that the delisting of the gray wolf was unlawful under the ESA and/or federal administrative policy. The policy documents extend from 1987, when FWS issued a revised recovery plan for the Rocky Mountain gray wolf (later termed simply gray wolf, as discussed in Chapter 2), to 2009, when FWS issued a final rule delisting the Rocky Mountain population of the gray wolf. A separate 2012 delisting document specific to Wyoming is also included. Further policy documents consist of two separate rules identifying Western and Rocky Mountain Distinct Population Segments (DPS) for the gray wolf, along with yearly monitoring reports establishing wolf numbers, distribution across their range and the like. The court cases both adjudicated disputes regarding the lawfulness under the ESA of the 2009 listing decision and the 2012 delisting decision specific to Wyoming.

Theoretical Orientation and Contribution

This chapter's goal is to show how a *population* of a species, a key term in wildlife management and social theory alike, is discursively defined, characterized, and constrained. These discursive processes enforce security over a population. Security mechanisms supervise populations as they pass from the control of one institution into that of another (Foucault, 2007), as was the case with 832f passing from the protection of YNP to an open state hunting area in Wyoming. In the case I examine here, the

institutional control and resultant territorial shifts flow from federal to state control over the species, and security mechanisms implicated in this process include state borders and the administratively enforced borders between prime wolf habitat and areas where they are seldom seen and even less welcome. These security mechanisms are at least in part discursive, and they involve "an increasingly huge set of legislative measures, decrees, regulations, and circulars that permit the deployment of these mechanisms of security" (Foucault, 2007, p. 7).

This analysis shows how sound science (i.e., the consensus of opinion emanating from wolf biologists) may be suppressed by discourse regimes that superimpose political borders over the ecological bioregions that define habitat. The concept of population, which is increasingly qualified by the modifier "buffer" (a "buffer population"), enable territorial enactments that enforce a security over a species that may manifest as a sterility. The material-rhetorical divide is oddly bridged in this process: discursively-enacted territorial security over a population in the form of controlling the species' numbers may strip ecological viability from the population. This viability is a function of population genetics whereby sufficient number of a species and sufficient exchange across population units catalyze genetic health. Here, the discourse of population/security, a subset of border rhetoric, may forestall ecological integrity. I expand on these implications in the chapter's conclusion and in Chapter 5.

Population: Questions of Numbers and a Standard for "Viability"

The concept of population has been near the center of the wolf debate since before reintroduction. Populations are measured both in terms of overall numbers and in terms of genetic exchange through dispersal. Genetic interchange between packs and across populations through wolf dispersal has consistently figured into discourse about gray wolves, particularly in recent years and most notably after FWS first moved to delist the gray wolf in the Western U.S. in the early 2000s. The measure of populations through numbers continues to be a primary benchmark for establishing viability or "sustainability" in management. Early on in the reintroduction process, the tendency was to consider raw population numbers rather than genetic exchange across the population or "metapopulation" as a primary marker of gray wolf recovery. These two ways of measuring the presence of the gray wolf—the raw number accounting of population and the more nuanced analysis of genetic health—do not always work in tandem.

Early planning documents such as the 1980 Northern Rocky Mountain Wolf Recovery Plan and its 1987 revision (plan) did not foreground genetic health. Instead, the plan merely identifies recovery areas (Northwest Montana, Central Idaho and the greater Yellowstone area) and establishes numerical goals for recovery. The plan's goal is made clear in the executive summary: "the primary goal of the plan is to remove the Northern Rocky Mountain wolf from the endangered and threatened species list by securing and maintaining a minimum of 10 breeding pairs of wolves in each of the 3 recovery areas for a minimum of 3 successive years" (p. v). Two salient elements of this statement stand out in light of subsequent management of gray wolf populations. First, the plan foregrounds the desire to remove the species from protection. This removal, or delisting, is based on meeting the stated goals of numerical and geographic distribution. Upon delisting, state management commences. Since the writers of the plan knew this to be the case, and since they expressed a desire to remove protection based on sufficient population numbers, we may surmise that the writers desired eventual state control over wolves. A second and closely connected feature here is the use of numbers to drive the assessment of the species' recovery. The plan uses only one metric for recovery in this statement of purpose: population numbers. This presupposes that numbers are the most effective way to measure population viability. The pragmatic linkage of these two phenomena, numbers-based accounting of wolf recovery and state management, is significant to this analysis because both limit gray wolves' ecological function. This constraint is established and maintained not by science-based management practices, but by the distribution and delegation of political power.

State management foregrounds matters of population, since states in the study area uniformly seek to reduce gray wolf population numbers to at or near federal minimum recovery levels of 10 breeding pairs and 100 individuals. Aggressive state management such as that of Wyoming (described below) not only drives down population numbers, but also tends to reduce the effectiveness of dispersal, since dispersing wolves suffer increased human-caused mortality (Boyd & Pletscher, 1999). State management is in many ways in fundamental conflict with numbers-based and genetically-based gray wolf recovery. In the study of conservation biology and with respect to the wolf in particular, scientific studies have increasingly noted the importance of genetic exchange across a population (Frederickson & Hedrick, 2002; Gilpin & Soule, 1986, Hedrick & Kalinowski, 2000; Liberg et al., 2005; Vila et al., 2003). Results of these studies would strongly support the use of assessment measures beyond raw population data to make decisions about a species' conservation status. Since the ESA requires listing and delisting decisions to be based on "the best available scientific and commercial data," (FWS, 2009) the results of such studies should arguably be included in the decision making process. Legal claims regarding the legality of FWS delisting actions have argued as much. In the remainder of this section, I offer an explanation and analysis of the process whereby population and its corollary, genetic health, have become not just markers for wolf recovery, but also discursive flash points in the ongoing wolf debate. In the following section, I analyze a key application of numbers-based population assessment in the case of Wyoming's management for a "buffer" population of gray wolves to ensure continued state management.

The Standard for Population Viability: A Study of the 1994 EIS

The Final Environmental Impact Statement (EIS) identifies the primary rationale for reintroduction: "to increase the genetic diversity of the founding population" (EIS, 1994, p. 18). Reintroduction, then, was meant in part to ensure the population's genetic health, even though the 1987 plan did not foreground this rationale. The EIS validates the plan's 10 breeding pairs benchmark, but adds a parenthetical caveat: "the current definition for a viable wolf population in Montana, Wyoming and Idaho is 10 breeding pairs, in each of 3 recovery areas (with some level of wolf exchange between them) for 3 consecutive years" (p. 9). This is a relevant parenthetical that invites inference of the statement's importance, despite its appearance between parentheses. I base its inferential relevance not on the inclusion of a verb in the parenthetical, as did Blakemore (1991), but on the inclusion of the term "wolf" paired with "exchange." Based on analysis by the concordance software Antconc, "Wolf" is the seventh most frequently occurring word in this 414-page document; it occurs 2,913 times. Word frequency ranks 1-5 are claimed by articles, prepositions and a conjunction (and); rank 6 is occupied by "wolves," with 2,980 occurrences. The use of wolf as an adjunct noun may draw attention based on the word's

prominence in the document and connection to the document's purpose. Moreover, the choice of the word wolf to modify exchange versus the obvious alternative of "genetic exchange" (e.g., Wayne et al., 1992, p. 559) may more closely align *wolf* reintroduction with genetics, implicitly setting the stage for increased attention to this way of assessing population health among wolves.

This alignment is present in the EIS to varying degrees, particularly in back matter. Although the EIS's main text identifies the 1987 plan's population-based recovery goals as the standard for gray wolf recovery, the document contains an appendix written by a wolf expert and the project leader for the EIS (Fritts, 1994) that differs with this standard, though this difference is implied upon (my) further scrutiny of the document rather than foregrounded. The appendix cites the need to re-evaluate the plan's population standard, particularly its identification of 3 separate recovery areas, suggesting "the assessment of viability of populations has evolved rapidly since the Plan was finalized" (p. 37). One aspect of this assessment of viability, Fritts argued, is the problem of "genetic drift" (p. 38) associated with smaller, more isolated populations, whereby a population's health is compromised through decreased genetic variability caused by inbreeding. Although acknowledging the problem of genetic drift among smaller, more isolated populations, Fritts nevertheless concluded that

It is fairly clear that ten breeding pairs in isolation will not comprise a 'viable' population (i.e., have a high probability of survival for a long period without human intervention). Thirty or more breeding pairs comprising some 300+ wolves in a meta-population with genetic exchange between sub-populations should have a high probability of survival of long-term persistence. [...] My conclusion is that the 1987 wolf recovery plan's population goal of ten breeding pairs of wolves in 3 separate areas for 3 consecutive years is reasonably sound and would maintain a viable wolf population for the foreseeable future (p. 42).

This statement has two distinct declarative elements, and they are not at all parallel. In fact, they are at odds, causing an administrative tension within this document that persists throughout much later discourse. First, Fritts states it is "fairly clear" that the 10 breeding pairs standard fails if populations remain isolated from one another. Second, and in contrast, Fritts advances this conclusion: "the 1987 wolf recovery plan's population goal of ten breeding pairs of wolves in 3 separate areas for 3 consecutive years is reasonably sound and would maintain a viable wolf population for the foreseeable future" (1994, p. 42). In light of previous and subsequent management discourse and decisions regarding the gray wolf in the Rocky Mountain region, these statements are important features, even if they are relatively obscured in the back matter of the 1994 EIS. I shall treat these two statements in greater detail below.

"It is fairly clear that ten breeding pairs in isolation will not comprise a 'viable' population."

Using the language of the plan, "ten breeding pairs," strongly associates this negative view of the 10 breeding pairs standard with the very standard being officially promulgated by the EIS, which is precisely a standard of 10 breeding pairs and 100 individuals in 3 separate areas (hereinafter "10/100"), for a total of 300 wolves, for 3 consecutive years. Notably, this statement modifies "ten breeding pairs" with the prepositional phrase "in isolation," which combines the containment of the preposition "in" with the absolute separation implied by the word "isolation." If the goal is viability of a wolf population, this statement suggests, the 10/100 standard is doubly wrong. The declaration that 10 breeding pairs in isolation will not represent recovery is then supported by a vision of population viability that uses the term "meta-population" and

stresses "genetic exchange" between "sub-populations" (1994, p. 42). This supporting statement emphasizes the need for genetic exchange across populations, using the Greek prefix "meta" or "at a higher level" (Oxford English Dictionary, 2014). Isolated, individual populations are identified here as "sub," or below. The use of "sub" to indicate isolated, pocket populations may indicate a presupposition that such populations are "below" the genetic exchange standard of viability Fritts embraces in the early part of the paragraph, which seems to fly in the face of the 10/100 standard and its isolation of subpopulations. The prefix "meta" identifies "ulterior issues in the same field" (Oxford English Dictionary, 2014). The first definition of "ulterior" is "lying beyond that which is immediate or present; coming at a subsequent point or stage; further, future" (Oxford English Dictionary, 2014). Taken together, these definitions seem to indicate both the future and something higher or beyond.

This emphasis on the future and/or something higher or beyond stands to reason given Fritts's research and publication activity in the same year the EIS was published. In an article entitled "The Relationship of Wolf Recovery to Habitat Conservation and Biodiversity in the Northwestern United States," Fritts and co-authors connected "preservation of large tracts of public lands" (1994, p. 23) to wolf reintroduction, which in turn will, they argue, "contribute indirectly toward long-term conservation of wild spaces and biodiversity in North America" (p. 23). The emphasis here on large swaths of land, coupled with their (said swaths') association with wolf reintroduction and in turn with long-term health of ecosystems, cements a connection between open-ness and growth and wolf reintroduction. This is macrolevel thinking that contrasts with the somewhat "micro" version of wolf population viability associated with the 10/100 standard. Macrolevel "systems thinking" (Nassauer, 2006) drove the ecological vision that birthed the ESA and, perhaps, the very idea of gray wolf reintroduction and recovery. The constraint of that process through numbers-based assessment of population viability, however, may work against the systems-based thinking that characterizes many biological appraisals of population viability. These appraisals seem to have extended past mere accounting by around the time of the EIS's distribution, even if the EIS itself continued to pursue the simple 10/100/3 separate areas model espoused in the 1987 plan.

"My conclusion is that the 1987 wolf recovery plan's population goal of ten breeding pairs of wolves in 3 separate areas for 3 consecutive years is reasonably sound and would maintain a viable wolf population for the foreseeable future."

The passive construction of this sentence is interesting. If, as the rest of the paragraph tends to indicate, population viability is predicated on the mobility of the species across a "meta-population," then the passive construction here may indicate a logical and subjective separation from this final conclusion, which is at odds with every other statement in the paragraph. Logically, the conclusion that the 1987 plan's goal is "sound" conflicts with the viability standard of genetic exchange across a "meta-population" implied in the same paragraph. Soundness is substituted for viability in the conclusion, but this substitution is not a neat one. That is, whereas the early sentences of the paragraph clearly identify the 10/100 standard as not conducive to population viability, the concluding sentence associates that very standard with soundness and viability for "the foreseeable future." Here, the soundness of the 10/100 goal corresponds to the viability of the population. In the first sentence, however, the same measure of population—its viability—is set against the 10/100 standard, which "clearly" conflicts with viability. This paragraph, then, presents unresolved conflict from a logical

perspective. From a subjective perspective, the passive construction of the sentence may indicate a distancing from, or even a concealment of (Chilton, 2008), the obvious dissonance of these conflicting messages on the part of the subject-scientist.

This dissonance is significant because it may indicate, on a lexicogrammatical level, what biologists like Fritts (who was employed by FWS) may have been loathe to voice more strongly, assuming their interest in continued employment: namely, that population viability and the 10/100 standard are mutually exclusive. Other biologists indicated as much. In the same appendix to the 1994 ESA in which the equivocation outlined above occurred, Fritts identifies the means of determining whether the 10/100standard of the 1987 plan would correspond to population viability. These means were 1) a survey of recent literature on population viability; 2) a review of recovery goals in other plans for wolves besides the Northern Rocky Mountain wolf; 3) a survey of biologists who study wolves; and 4) Fritts's own thoughts. The third method of determining viability is the present concern. As we have seen, Fritts determined, with some amount of legible lexicogrammatical tension, that despite the 10/100 standard's drawbacks in terms of viability, that very standard would nevertheless lead to a viable population for the foreseeable future. This conclusion is paradoxical in 3 ways: first, it is logically/lexicogrammatically so; second, it is paradoxical in the sense of being counter to *doxa*, or "a statement or tenet contrary to received opinion or belief, esp. one that is difficult to believe" (Oxford English Dictionary, 2014); third, it is rhetorically paradoxical, as in "contrary to what the audience has been led to expect" (Oxford English Dictionary, 2014). As to the first and third, I have shown how the concluding paragraph establishes yet does not address the tension between conflicting standards of viability,

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thereby presenting both a logical paradox and a violation of audience expectation (rhetorical paradox). My determination that audience expectations are violated by the statement assumes the audience would like the conclusion of a paragraph to follow from the opening declarative statement (Gopen & Swan, 1990). As to the second sense of paradox ("second," above), the conclusion ran counter to the determinations of viability by several of the scientists who responded to Fritts's mail questionnaire (1994, p. 41). Importantly, Fritts stated "no effort was made [in the questionnaire] to define 'viability'; the biologists were expected to use their own inherent understanding of the concept" (1994, p. 41).

Fritts indicated that his survey of "biologists familiar with wolves" asked "(1) whether a population of ten breeding pairs alone for 3 consecutive years would constitute a viable population; and (2) whether ten breeding pairs (assumed to be 100-150 wolves) in 3 areas for 3 consecutive years constituted a viable population" (1994 p. 41). Fritts reports in this memorandum that

Sixteen (64%) of the 25 biologists who responded felt that ten breeding pairs sustaining themselves for 3 consecutive years at least met the minimum standards for a viable population. Six of the 16 commented that ten pairs was marginal for viability and/or was viable only if interchange with another population occurred. Seven respondents believed this number was too few.

This presentation of data is noteworthy for its selection and repression of information. It selects a single expression of a percentage; this expression is one of majority (64%), explicitly and numerically indicating doxastic scientific agreement with the 10/100 standard. This percentage stands out in the paragraph as the only such numerical expression of percentage; it therefore enjoys unique prominence as it shows

agreement with the 10/100 standard as sufficient for population viability. Yet of those 16 included in the 64%, six either used the term "marginal" to describe the 10/100 standard or suggested it would only be viable in the presence of "interchange," or dispersal-fueled genetic exchange. Fritts does not specify which of the six use "marginal" and which of the six stress "interchange." We can safely conclude, though, that all of these 6 questioned the viability of the 10/100 standard in one of these ways, even though Fritts put them in the group of 16 responding biologists who concluded the 10/100 standard "at least meets the minimum standard for a viable population." These six dissenting scientists represent 37.5% of the 64% presented by Fritts as in favor of the 10/100 standard. Yet, Fritts placed them in the category of the 64%, thereby inflating the number of scientists in favor of 10/100 as a measure of a viable population. Were Fritts to have left out of the 64% (n=16) the 24% of total biologists surveyed (n=6) who considered the 10/100 standard either marginal or viable only in the presence of interchange between subpopulations, that 64% would become 40%. This would of course deny majority status to biologists embracing the 10/100 standard as sufficient for maintaining population viability. If Fritts were to have combined the seven biologists who flatly denied the viability of the 10/100 standard with those who questioned its relation to population viability (n=6), he might have alternatively represented the survey results as 52% not in favor of the 10/100 standard, granting majority to those dissenting to 10/100 as a standard.

Of course, were Fritts to have represented the dissenting biologists as a majority, if a slight one at 52%, he would still have a problem based on the presentation of data in this paragraph. The problem is a defiance of the principle of arithmetic whereby a percentage is based on a whole of 100, or per centum. The number of biologists involved in the survey is identified as 25. Sixteen were said to be in favor of 10/100; six of those 16 were reticent in their agreement based on marginality and/or lack of interchange. The phrasing "six of the 16" identifies these dissenters as part of the 16, thereby leaving the account of results at n=16 for the moment. The next sentence notes that seven respondents "believed this number [10/100] was too few." Adding these seven to the 16 in favor of the 10/100 (of those, six were reticent, but they still appear to be included in the 16) yields 23 respondents. Therefore, two respondents are left unaccounted for in this paragraph, which treats the issue of agreement with the standard, a fundamental question of the survey. Since Fritts identified 25 respondents and accounted for only 23 here, this presentation is *prima facie* not an accurate rendition of survey results on a percentage basis, where 25=100 percent. Moreover, on a more contextualized and less purely numerical level, many of the survey respondents offered comments explicitly responding to the insufficiency of the 10/100 standard to ensure population viability and/or to the subjective and therefore flawed nature of the questionnaire.

In response to Fritts's questionnaire, one surveyed biologist wrote, "unless someone has done a study of minimum viable population (MVP) of wolves from a genetic standpoint there would be no way to know for sure whether this population would sustain itself in the long term" (FWS 1994b, qtd in Natural Resources Defense Council, 2008). Frustrated by the definitions of viability provided in the survey (either fewer than 10/100 or precisely 10/100, sustained for 3 consecutive years, per FWS's 1987 recovery goals), another scientist commented, "I can only respond subjectively to the proposed definitions" (FWS 1994b, qtd in Natural Resources Defense Council, 2008). Another respondent suggested as follows:

I think it is essential for us to realize and state that these definitions are not based on any true knowledge of what a population or a viable population for wolves is but rather, mostly a guess based on the best information available. We should be willing to change our definition as new information is obtained. These definitions should not make or break wolf recovery or reintroductions" (FWS 1994b, qtd in Natural Resources Defense Council, 2008).

These responses indicate serious reservations about measuring viability with unqualified numbers. As the third response excerpted indicates, flexibility is indicated when dealing with determinations of population viability, a concern voiced often in the scientific literature on the subject (Frankham & Ralls, 1998; Jenks & Wayne, 1992; Lande, 1988; Reed & Hobbs, 2004; Thomas, 1990; Traill, 2007). Rather than offer this kind of flexibility in establishing numerical goals for recovery, the 1994 EIS promulgates the numerical standard of 10/100 established by the 1987 plan. The EIS advanced this standard in the face of opposition to it on the part of a number of scientists, indeed the majority (see my identification of 52% above).

Still, other respondents voiced concerns about the very concept of population, a notion that connects the discussion to the nonessential experimental designation discussed in Chapter 3. In particular, one biologist who did not favor reintroduction but rather sought natural recolonization of the area (whereby wolves would naturally disperse from Canada and Montana into the lower Rocky Mountains) wrote, "if accepting your definition would imply that a population doesn't exist and therefore you have free reign to carry on with a release program, I would reject your definition" (FWS 1994b, qtd in Natural Resources Defense Council, 2008). This statement echoes the concerns of those who brought a federal suit against reintroduction (see Chapter 3), claiming extant

populations of Rocky Mountain gray wolves would be harmed by the introduction of gray wolves sourced from packs in Canada. The reintroduction of gray wolves involved the downlisting of the population in the Rocky Mountains from endangered to threatened under the provisions in section 10(j) of the ESA to ease restrictions on managing a reintroduced population (e.g., allowing for greater leeway in lethal management upon reports of wolf depredation on livestock). This dissenting statement rejects any definition of "population" or "viability" that involves a re-insertion of wolves from outside the recovery area into the recovery area, on whose northern edge wolves had begun to resurge in the several years preceding reintroduction. The implication here is that the FWS's definition of "population" is always already artificial, as it is predicated on introducing a nonessential experimental population of wolves from outside the recovery area into an extant endangered population in the recovery area. The statement further implies that a nonessential experimental population is neither a population nor viable.

Though their concerns about the pat measurement of viability carried by the 10/100 standard of the 1987 plan and subsequent 1994 EIS were varied in their reasoning, the preponderance of questionnaire respondents did not simply reply "yes" when probed regarding whether the 10/100 standard would ensure viability. Even when biologists accepted the standard, they would often admit the practicality of their acceptance of this low standard for viability, which conflicted with many existing assessments of population viability (Lande, 1988; Thomas, 1990) and later assessments (e.g., Brook et al., 2006; Traill et al., 2007). For example, Mike Phillips, project leader for the Yellowstone National Park Wolf Restoration Program, agreed with the 10/100 standard and added, "I'd support a revised Plan that presented smaller numbers for

recovery goals if such a revision increased the odds of getting wolves 'on the ground'" (FWS 1994b, qtd in Natural Resources Defense Council, 2008). Phillips's response presents an aspect of this conversation that cannot be ignored: simple pragmatism. Yet in this case, that pragmatism is at odds with the best available scientific information (the decisionmaking standard of the ESA) regarding population health. Even Fritts's conclusion shows this tension, as I have shown. Just what constitutes a viable population of wolves has continued since reintroduction to be a contentious issue among various stakeholders; the question has been revisited officially on a number of occasions. Despite credible claims from 1994 onward regarding the insufficiency of the 10/100 standard, it continues in 2014 to be the standard by which population health is judged. Even when genetic health via dispersal enters into the determination of viability, it is de-emphasized with respect to raw numbers.

In what follows, I offer an informative and analytic timeline of later considerations of population viability. Then, I offer a discussion of a recent application of the 10/100 standard, as modified with the loose modifier "buffer population," in the case of a recent court decision that ruled FWS's delisting under the ESA of the gray wolf in the state of Wyoming in 2012 was "arbitrary and capricious" (*Defenders of Wildlife v. Jewell*, 2014, p. 2).

Subsequent Applications and Modifications of "Population"

In 2000, the gray wolf population in the Northern Rocky Mountain recovery area of Western Montana, Central Idaho and YNP reached the plan's numeric recovery goal of 10 breeding pairs and 100 animals in each of these 3 areas (77 Fed. Reg. at 55,531). This population level is maintained for the following 3 years, thereby meeting the temporal goal under the 1994 EIS of 3 successive years of its measure of population viability. In this same year, FWS issued a rule establishing a distinct population segment (DPS) of gray wolves for the Western United States.

In 2001, FWS conducted what it termed a "peer review" of the 1994 EIS to analyze its standard for population health. It took the form of a survey of wolf biologists, as in 1994. As in 1994, a number of respondents questioned the 10/100 standard. One respondent, a FWS scientist, concluded, "in the absence of a quantitative measurement [to support a definition of viability], it is subjective and conjectural to simply interpret 30/300 [10/100 in each of the thee discrete recovery areas] as meeting population viability" (Bangs, 2002, qtd in Natural Resources Defense Council, 2008). Others bemoaned the lack of quantitative modeling of population dynamics. Beyond a desire for quantified definitions of viability, respondents sought detail regarding genetics, suggesting in one case (the noted late wolf researcher Haber) that the 10/100 standard did not adequately address "underlying qualitative—behavioral and genetic—aspects of population biology" (Bangs, 2002, qtd. in Natural Resources Defense Council, 2008, p. 28).

In 2003, FWS issued a rule reclassifying the gray wolf population into 3 distinct population segments, or DPSs (68 Fed. Reg. at 15,804). Gray wolves in the Western DPS (which includes the area of the present study) are reclassified from endangered to threatened, "except where already classified as threatened or as an experimental population" (68 Fed. Reg. at 15,804).

In February of 2008, FWS issued a rule (73 Fed. Reg. at 10,514) establishing a Northern Rocky Mountains DPS, or NRMDPS. This narrowed the range of the Western

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DPS and allowed FWS to delist the population under the 10/100 standard, which had remained functionally unchanged in spite of several reviews and dissent from many biologists. The rule also removed the NRMDPS from the federal List of Endangered and Threatened Wildlife, under which it had been listed as threatened based on its nonessential experimental status under section 10(j) of the ESA. The rule remanded management of gray wolves to Idaho, Montana and Wyoming, whose wolf management plans, according to the rule, met the administrative standard of an adequate regulatory mechanism for ensuring a viable population, again defined as 10/100. In justifying the delisting decision, FWS discussed genetic health of the Northern Rocky Mountain Distinct Population Segment (NRMDPS) in detail. The document identifies YNP as a "high density core refugium" for the DPS whose presence "provides for a much larger and well-dispersed wolf population" than recent literature at the time would suggest (e.g., von Holdt et al., 2007). No account is made of how a concentrated and isolated population in a bordered reserve (YNP), which would after delisting be subject to hunting, trapping and other lethal controls under state plans, would enjoy genetic exchange with other subpopulations. In citing the ability for wolves to disperse from elsewhere, such as Northwestern Montana, into the Greater Yellowstone Area (GYA), the rule recounts the journey of a wolf from Montana that was shot "just south of YNP." Successful dispersal into the GYA is thus identified with the 1992 movement of a prereintroduction endangered (under the ESA) wolf and its illegal take. Allowing the lethal, legal and liberal take of wolves, as do state management plans, would tend to work against the successful dispersal the rule presupposes will happen based on single wolves' dispersal 16 years earlier under conditions that did not include human hunting of wolves,

aerial control, poisoning, gassing, or any of the other means of take and/ or harassment allowed to varying degrees by state wolf management plans.

In August of 2008, a federal district court for the District of Montana ruled in favor of plaintiffs, 12 separate environmental groups, granting a preliminary injunction against the delisting decision under the standard that plaintiffs were "likely to succeed on the majority" of their claims. (*Defenders of Wildlife et al. v. Hall et al.*, 565 F. Supp 2d, 1163, D. Mont. 2008). The court ruled specifically on two claims: first, the delisting decision was arbitrary, as it was based on insufficient evidence of genetic exchange (via dispersal) between subpopulations in the broader metapopulation. The second part of the ruling concerned Wyoming's management plan, which featured a malleable "trophy game" area. This trophy game area and other aspects of Wyoming's plan will be analyzed in the next section. In this case, the court's injunction required FWS to rescind its rule, but allowed FWS to revise it.

In April of 2009, FWS issued a revised final rule identifying the northern Rocky Mountain gray wolf DPS and delisting the species in Idaho and Montana, but not in Wyoming. The agency cited the adequacy of Idaho and Montana's regulatory framework for ensuring minimum populations of gray wolves, but noted Wyoming's regulatory framework would not at least meet the 10/100 population standard (74 Fed. Reg. 15,123) because its plan allowed for lethal take of wolves in areas through which dispersing wolves might travel to reach other subpopulations. The rule concluded that "the Wyoming portion of the range represents a significant portion of range where the species remains in danger of extinction because of inadequate regulatory mechanisms" (74 Fed. Reg. 15,123). In compliance with the National Environmental Policy Act (NEPA), a

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public comment period preceded the publication of this rule. Additionally, in accordance with FWS's Interagency Policy for Peer Review in Endangered Species Act Activities (59 Fed. Reg. 34270, 1994), FWS incorporated peer review from "eight well-published North American scientists with extensive expertise in wolf biology" (p. 15138). Both public comments and comments from peer reviewers addressed concerns around population and genetics.

The presentation of comments from peer review in this document is positively terse given the document's length: it occupies a single paragraph. Its topic sentence states, "generally, the reviewers agreed with our conclusion that the wolf population in the NRM DPS is biologically recovered and is no longer threatened as long as the states adequately regulate human-caused mortality" (p. 15138). The paragraph does not identify any specific reviewer comments; rather, it identifies categories of concern among reviewers as follows:

Issues identified by a majority of reviewers included suggestions to expand the discussion related to: The recovery criteria (connectivity, foreseeable future, metapopulation, and breeding pairs); the adequacy of State wolf management plans and their future commitments; how the DPS boundary and criteria for suitable habitat were developed; options to retain the Act's protections in portions of Wyoming; and the effect of humancaused mortality on the wolf population.

Immediately after listing this series of nonspecific concerns—more categories or concepts than defined problems—a 17-page section titled "summary of public comments" follows. Although the scientist reviewers undoubtedly function as members of the general public, we can assume based on the often-problematic separation of "public" and "expert" or "scientist" or "peer" discussed in much decisionmaking literature (e.g., Dietz & Stern, 2008; Endres, 2009; Leighter & Black, 2010) that the

comments addressed in the public comment section are those of the general public rather than those of the scientist reviewers. This means that whereas one paragraph of the document addresses, with a notable lack of specificity, general concerns brought up by peer reviewers, 20,928 words are devoted to outlining and responding to public comment. It appears the issues brought up by the reviewers, when discussed, are folded in the category of public concerns and therefore not directly addressed. On the issue of how to define "foreseeable future," for example (recall that this was a crucial aspect of the 1994 determination of population viability), the discussion of public comments noted that, "some folks believed that limiting foreseeable future to 30 years was inappropriate" (p. 15147). Besides breaking the formal tone of the document (although the writers may have simply been reaching for a noun besides "commenters" to identify those who offered comments to avoid redundancy, and "folks" may have seemed a handy substitute), this colloquial characterization of those fielding concerns regarding the "foreseeable future" definition would seem to implicitly identify these "folks" as laypersons, not experts.

In addition to this document-wide slim treatment of expert concerns compared to an outsize point-by-point address of public concerns, the one-paragraph summary (112 words) of reviewer concerns suggested reviewers sought to "expand the discussion related to" the items of concern. The discussion is indeed expanded immediately after the paragraph, but it is framed as a series of public concerns followed by agency responses. It is not an expansion of the discussion in scientific terms. Moreover, it is unlikely that reviewers uniformly sought merely an expansion of a discussion as an action item. Rather, many likely suggested concrete changes in policy, which might be supported by the new knowledge about wolves these reviewers were producing. Unfortunately, the document provides no discussion of how the experts sought to expand the discussion. Instead, the document places all reviewers into the same category of unanimous agreement with the assessment that the species is "biologically recovered." Bruskotter (2013) has argued that this phrase seems to have been coined especially for the gray wolf sometime around 2005 in the biological literature (Garrott et al., 2005) and used frequently thereafter, particularly in defense of delisting decisions. As Bruskotter notes, the term's frequency of usage is matched by the elasticity of its meaning: no sources the author found explained in any depth what the term meant. Like the concept of a viable population, much is subject to speculation, and much of that speculation is in turn influenced by political concerns (Hardy-Short & Short, 2000), particularly those related to political territories and the borders that demarcate them.

The presentation of public comments in this document is notable both for its detail and lack of detail on the matter of population. Its basic detail comes from its direct response to 61 issues brought up during the comment period, the majority of which interface in some way with population and/or genetics. Although it is laudable that the agency responded in some detail to many of these concerns, the issue of population viability remained in many ways a floating signifier without a particularly clear referent throughout these responses. The issue thus "absorbs rather than emits meaning" (Oxford Reference, "floating signifier," 2014). For example, public commenters addressed the problem of "numerical quotas" (p. 15139) as a metric for recovery (a concern labeled "issue 5,") often noting the insufficiency of sheer numeric quantification as an assessment of population viability. FWS responded to this concern thus: "as described in detail in this rule, the species no longer meets the definition of threatened or endangered

in all of its range, [sic] thus, delisting across most of the NRM DPS is warranted" (p. 15,139). The response does not support this claim directly at the point in the text labeled "response 5." Instead, the response makes this claim and points to another place in the text as evidence: "for a detailed discussion of the NRM wolf recovery criteria see the Recovery section" (p. 15,139). The recovery section of the document is 9,429 words long; it contains nine subsections. The reader might thus find it difficult to locate the evidence for response # 5's dismissal of public concerns regarding the adequacy of numbers-based recovery targets. A close examination of the recovery section reveals further discussion and qualification of the 10/100 standard. Specifically, after reiterating Fritts's (1994) conclusion that the 10/100 standard, applied across 3 separate recovery areas, was "reasonably sound," the recovery section concludes "a metapopulation of this size and distribution among the 3 areas of core suitable habitat in the NRM DPS would result in a wolf population that would fully achieve our recovery objectives" (p. 15131). In over 9,000 words of discussion, the same standard for recovery advanced since 1994 is the fundamental articulation.

Although the recovery goals remained the same as they had since 1994, this delisting document specifies that states must manage for a population above those minimum recovery goals. This population difference is referred to as a "buffer" to ensure the population does not require relisting due to insufficient population. The term "buffer" is employed as a noun only 3 times in this document, however, indicating its relatively subordinate nature as a concept affecting appraisals of a recovered population. This concept would become much more prominent, and significantly so, during the process of delisting the species in Wyoming in the following 3 years. It would also prove influential

in the reversal of delisting in Wyoming in September of 2014.

In 2010, a federal district court found in favor of plaintiffs, who claimed that the 2009 delisting rule violated the ESA. (*Defenders of Wildlife v. Salazar* 729 F. Supp. 2d at 1207, D. Mont., 2010). Specifically, the groups argued the ESA did not allow for delisting of a distinct population segment in parts but not all of its range (i.e., it could not delist in Montana and Idaho but not in Wyoming). The court agreed, thereby nullifying the 2009 delisting rule. In an extremely uncommon and creative turn of phrase, the court identified the wolf debate as "steeped in stentorian agitprop." 729 F. Supp. 2d 1207 at 1210 (D. Mont., 2010). Ignoring for the most part the shrill propaganda (my rough idiomatic translation of "stentorian agitprop") around the wolf debate, the court focused on the language of the ESA regarding its definition of species and range, comparing the statutory basis of identifying endangered species and facilitating their recovery against the partitioning of the gray wolf as a species into a series of distinct population segments. The court focused:

- The Endangered Species Act does not allow the U.S. Fish and Wildlife Service to list only part of a 'species' as endangered, or to protect a listed distinct population segment only in part as the Final Rule here does; and
- 2) the legislative history of the Endangered Species Act does not support the Service's new interpretation of the phrase 'significant portion of its range.' To the contrary, it supports the historical view that the Service has always held, the Endangered Species Act does not allow a distinct population segment to be subdivided.

The court's profoundly rare phrasing in describing this case (a search of the World Wide Web indicates only 88 results for a search of the exact phrase "stentorian agitrprop," 87 of which are quoting this case and one of which *is* this case) is matched by the rarity of the next important action in this timeline.

In 2011, Idaho representative Mike Simpson and Montana Senator Jon Tester attached a rider to the "must pass" federal budget bill that mandated enforcement of FWS's 2009 delisting in Idaho and Montana and attempted to forestall any further litigation on the matter (Bruskotter, 2013). Notably, the 2010 federal court decision was made based on statute (the ESA) rather than on administrative procedure or fact. The congressional rider thus overturned a finding of law by a federal court. This is an extremely rare action and, in the case of the ESA, without precedent (Bruskotter, 2013). Interviewed on the subject by the *New York Times*, Tester suggested his state had been held "hostage" (Taylor, 2011) by Wyoming, whose failure to field a satisfactory regulatory framework beyond allowing wolves to be "shot on sight" (Taylor, 2011) in approximately 85% of the state, had resulted in the 2010 federal court ruling against the 2009 delisting.

In September of 2012, FWS published a final rule removing the gray wolf population in Wyoming from the List of Endangered Species (77 Fed. Reg. at 55,529). In justifying the decision, FWS cited the recovery of the species in Wyoming and the adequacy of Wyoming's regulatory framework for managing the species. This rule completed the delisting of the Northern Rocky Mountain Distinct Population Segment of the gray wolf. Like the 2009 rule that delisted the species in Montana, Idaho and northern Utah, this rule discussed the issue of population. Like the 2009 rule, this rule ultimately upholds the 1994 standard for viability of a population described above. Yet even while endorsing the basic numeric population metric active for 18 years, the document provides a more rigorous and nuanced definition of "breeding pairs" than any of its predecessors. Indeed, the document defines breeding pair more clearly than the 2009 delisting rule, of which it is effectively an addendum, even if its length (76 pages) exceeds that of the 2009 rule by 10 pages. This very length may indicate just how much discursive exertion is required to justify delisting the species in a state that "has passed a law significantly limiting WGFD's [Wyoming Game and Fish Department's] options for professional wolf management" (*State of Wyoming v. Salazar*, 2010, p. 19) This definition identifies a breeding pair as enfolding:

Most of the important biological concepts in wolf conservation, including the potential disruption of human-caused mortality that might affect breeding success in social carnivores (Brainerd et al., 2008, p. 89; Wallach et al, 2009, p. 1; Creel & Rotella, 2010, p. 1). Specifically, we thought it was important for breeding pairs to have: Both male and female members together going into the February breeding season; successful occupation of a territory [...] enough pups to replace themselves; offspring that became yearling dispersers; at least four wolves at the end of the year [...] (p. 55537).

This definition, along with how it feeds into the rule's discussion of gray wolf population viability in Wyoming, is interesting for its explicit and implicit treatment of population dynamics. Explicitly, the rule continues to embrace the 1994 standard of 10/100 in 3 areas, or 30/100 in the entire RMDPS, noting that the standard had survived "peer review" (surveys of biologists) on multiple occasions, while simultaneously forwarding a uniquely detailed definition of breeding pairs. This fine-grained definition of breeding pairs focuses on the occupation of territory and dispersal into other territories, both much more robust descriptions of viability at the basic unit of population (the breeding pair) than in the documents reviewed above. Implicitly, this focus on dispersal and the stability of the breeding pair presupposes the connection of genetic exchange and a population's viability. It therefore implicitly validates scientific assessments of population health that would go above and beyond FWS's recovery goals of 10/100. In the end, however, the rule keeps the official recovery population numbers the same as they had been since the 1994 EIS, which had defined a recovered gray wolf population as "10 breeding pairs of wolves in each of 3 areas for 3 successive years with some level of movement between areas" (1994, pp. 6–7). This works against the same science implicitly validated in the fine-grained definition of breeding pair. In this rule, the phrase "some level of movement" is quantified in a uniquely detailed way at the level of breeding pair; this definition is explicitly connected to the need for the species to move from one territory to another to retain viability.

What is a buffer?

The 2012 FWS rule delisting gray wolves in Wyoming was issued upon the Wyoming Fish and Game Department having fielded a satisfactory plan for wolf management. Under the federal rules of administrative procedure and the ESA, states must provide an "adequate regulatory framework" for managing a recently delisted or downlisted species; FWS determined that the March, 2012 Wyoming addendum to its 2011 gray wolf management plan constituted such a framework. As I will describe in the next section, however, the plan and addendum did not include substantial differences from earlier iterations of the plan, which had consistently been deemed inadequate to ensure sufficient population numbers to avoid relisting the gray wolf. The 2012 delisting rule, the 2011 Wyoming wolf management plan, and the 2012 addendum to the

Wyoming plan all seem to handle the problem of potentially insufficient wolf numbers by extensively deploying the concept of a "buffer." This word is often used as an adjunct to modify "population," but in the 2009 delisting rule, the Wyoming state plan and addendum, and the 2012 Wyoming delisting rule, there is no quantification associated with what a "buffer" is. The concept is generally free-floating and lacking numerical basis. Below is a description and analysis of the usage of the term in these documents, along with predecessor documents, showing increased use of the term over time. The increased use of the term does not coincide with increased specificity regarding what constitutes a recovered population of gray wolves.

Table 3.1 includes documents that use the term buffer. In addition to the documents listed in the table, FWS's annual reports on the status of gray wolf recovery from 2002-2005 indicates no use of the term. In the 2006 and 2007 FWS reports, the term is used twice in each document, both times with the phrasing "wolves as a buffer for climate change." Taking into account the data presented in the table and these details from FWS communications, I conclude that the term "buffer" is not used in relation to managing for adequate population to ensure wolf recovery until 2009. Before that, the term refers to territorial buffers to ensure reintroduced wolves do not come into immediate conflict with extant packs (2000 DPS rule), to wolves' positive effect in mitigating climate change (FWS 2006, 2007), and spatial buffers between agricultural lands and wolf habitats (2003 DPS rule). In the majority of pre-2009 usages (5 of the 7 in Table 2.1), the word buffer is used in terms of space and territory. It is used with the modifiers "large" and "adequate," neither of which are rigorously quantified in

Table 3.1. Background Usages of the Term "Buffer"

Note: see descriptions above of the 1994 EIS, the 2000 and 2003 DPS (distinct population segment) Rules, and the 2009 delisting Rule. "FWS report" indicates annual reports on the status of gray wolf recovery issued by the FWS.

Document	Buffer usages (n=)	Context and Phrasing
1994 EIS	1	"live in the buffer zones betweenst"live in the buffer zones between territories to avoid packs"
000 DPS Rule	1	"wide buffer around the existing population of wolves"
2002 FWS Report	0	
003 DPS Rule	3	"wide buffer around the existing population of wolves" "this buffer was described as lands that" "substantial surrounding 'buffer area' in which wolves dispersing"
2006 FWS Report	2	"wolves as climate change buffer" (X 2)
2007 FWS Report	2	"wolves as climate change buffer" (X2)
2009 final delisting	4	"further buffering our minimum recovery goal"; "such requirements are necessary to provide adequate buffers"; "Idaho is managing for such a large buffer above minimum population; such requirements are necessary to preserve connectivity and allow for a buffer"

the 2009 delisting document. This trend toward using the loose term "buffer" to indicate that state management will keep populations above the 10/100 standard for recovery (the same standard which could prompt relisting under the ESA) became more prominent in the state of Wyoming's communications subsequent to the 2009 delisting, which kept wolves in Wyoming under federal control due to what FWS deemed an inadequate regulatory mechanism to ensure sufficient population.

For example, the 2011 Wyoming wolf management plan uses the term "buffer" twice. The first usage indicates "the Department [Wyoming Game and Fish Department] will manage for a buffer above the minimum objective of 10 breeding pairs and 100 wolves" (p. 24); the second usage indicates "the wolf populations in YNP and on the lands of sovereign nations will provide the remaining buffer above the minimum recovery goal intended by the step-down management objective of at least 15 BPs and at least 150 wolves statewide" (p. 52). The second usage of the term indicates with some specificity that the buffer in question consists of 5 breeding pairs and 50 animals above the minimum population target. This apparent specificity, though, belies the essentially "nonbinding" (*Defenders of Wildlife v. Jewell*, 2014, p. 18) nature of the state's management scheme outside areas of the state in which wolves are protected or managed less aggressively (i.e., in YNP and first nations' lands). If the state could use the YNP population of wolves, which has lately stabilized to approximately 95 individuals and 8 breeding pairs (NPS, 2014) toward aggregate population goals, then the state need not manage for *any wolves* outside those areas.

This fact was a key contention in *Defenders of Wildlife v. Jewell* (2014), in which plaintiffs' counsel asserted that FWS had specified in its 2009 delisting rule that Wyoming "must have something more than 10 and 100 in the areas where Wyoming is calling the shots, not the National Parks, in order to make sure that you actually meet the 10 and 100" (p. 19). The court agreed with this contention, ruling that Wyoming's regulatory mechanism was inadequate. Wyoming's counsel in the case made this conclusion an easy one during oral arguments for *Defenders v. Jewell* (2014), the force of which was to relist gray wolf populations in Wyoming. Wyoming's counsel argued in court that "the State is not legally required to manage for a specific numeric buffer in addition to the minimum management targets" (p. 20). An incredulous court responded to

this claim, which flew in the face of the notion—however unstable—of managing for a "buffer population," thus: "okay. So your basic position is that your commitment to manage to 10, plus the park, meets the goals, done" (p. 20). Counsel for Wyoming provided a one-word response: "correct" (p. 20). Even though its 2011 management plan established a metric for the term "buffer," setting it at 15/100 to ensure continued state control, the state contended otherwise in 2014, sealing its fate and losing its hard-fought control of wolves.

The 2012 delisting of gray wolves in Wyoming was predicated on the state's issuance of an addendum to the 2011 management plan. FWS deemed the addendum's provisions adequate from a regulatory perspective, prompting the 2012 delisting rule. The addendum's use of the term buffer is again worthy of note, but for different reasons than the state's 2011 management plan. In this case, the word "buffer" does not specifically reference a population buffer to ensure continued adherence to recovery criteria, but uses the concept of buffer to suggest the species' inherent resilience in the face of human-caused mortality:

Several characteristics of wolf biology and ecology buffer the possible impact of management decisions. Among large carnivores, wolves are especially resilient to harvest because they can sustain human-caused mortality rates between approximately 22% and >50% without a decline in numbers (Adams et al., 2008; Creel & Rotella, 2010; Gude et al., 2011; see also Fuller at al., 2003). (Wyoming Game & Fish Commission, 2012, pp. 3-4)

Regardless of whether the research the addendum cites supports the sustainability of wolf "harvest" by humans, this statement is mathematically false. That is to say, a population cannot suffer losses of between 22% and 50% of its overall numbers (presumably per annum, though no temporal qualification is offered here) *and not decline in number*. Beyond the mathematical falsity of this claim about the species' inherent "buffering" to the effects of being killed by humans, the use of the term "harvest" is rhetorically active. That is, it blunts the reality of what happens to wolves (they are killed; they die) by masking it as a "harvest." The term "harvest" implies a time of plenty, the reaping of a crop diligently sown: it implies that what is harvested will go to human nourishment. Here, what is nourished is perhaps a thirst for predator blood more than any sustainable management practice. As of this writing, gray wolves are protected under the Endangered Species Act once again in Wyoming; the state's inability to control a legislatively mandated aggression toward the species has resulted in this unfavorable state of affairs (at least in the eyes of its leadership). Having examined how Wyoming asserted its ability to manage for a minimum population of wolves only to lose that privilege due to the inadequacy of its management, I turn now to a close analysis of its wolf management plan during the brief period of delisting from 2012 to 2014.

Managing for Dispersal and Population: The Case of Wyoming

Following revisions to Wyoming's gray wolf management plan (Addendum), which introduced what FWS determined was a satisfactory regulatory framework under the ESA (*Defenders of Wildlife v. Jewell*, 2014), FWS delisted the species in Wyoming in October of 2012. The hunt during which wolf 832f was taken opened immediately afterward. During the window of delisting in Wyoming from October of 2012 to September of 2014, the species was classified across the state in 3 contrasting ways: protected in YNP and American Indian reservations; a trophy game species in 15% of the state, subject to hunting with a permit for the majority of the year; and a "predator" in approximately 85% of the state, subject to a shoot-on-sight policy. At present, the gray wolf is relisted under the ESA after a federal district court ruled FWS acted in an "arbitrary and capricious" manner (*Defenders of Wildlife v. Jewell*, 2014, p. 26) in delisting the gray wolf in Wyoming, as the amendments to Wyoming's state plan were deemed "cosmetic" by several biologists who reviewed the revision (p. 11). These cosmetic amendments would not, in these dissenting biologists' opinion, allow for genetic exchange across the RMDPS "metapopulation" (p. 5).

Competing characterizations of a dispersing population

Figure 3.1 shows the 2012 Wyoming wolf management map, under the provisions of which 832f was taken. The Wolf Trophy Game Management Area, or WTGMA, comprised only about 15% of the state's total area. The Wyoming Game and Fish Department's website (WGFD) indicated in 2012 that wolves were not to be hunted in Grand Teton National Park (GTNP) but their map (Figure 3.1) shows GTNP to be within the WTGMA. The area shown in red to the South and West of the WTGMA was termed a "flex area"; it is known as the Seasonal Wolf Trophy Game Management Area. In this "flex area," wolves were to be hunted by permit as a trophy animal from October 15 to the end of February every year. For the remainder of the year, they were classified as a predator, a designation that allowed the animal to be "taken at any time without a license and with no bag limit" (WGFD). This "flex zone" was a critical piece of the compromise between federal officials and the state of Wyoming that allowed wolves to be delisted in the state in 2012. Its ostensible purpose was to allow wolves to disperse into Idaho during peak dispersal periods, thereby ensuring the population's genetic health. How allowing hunting for 12 months out of the year allows for dispersal is not made clear, or referenced in any way, on WGFD's website. Instead of explaining this process of dispersal and how the WTGMA allows for it, even with sustained hunting, the March, 2012 addendum to

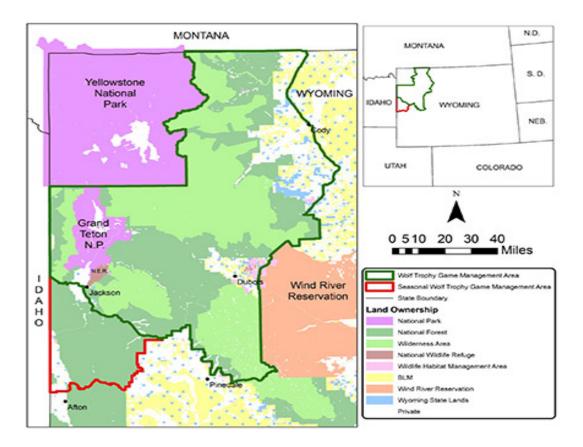


Figure 3.1: Wyoming Game and Fish Department's Map of Wolf Management Areas. Reprinted with permission from the Wyoming Game and Fish Department.

the state wolf management plan merely reiterated, in eight instances, its "commitment" to managing for a healthy population. This commitment is not substantially different from earlier versions of the state plan, which also included the controversial "predator" distinction, cited by FWS in 2009 as justification for denying delisting in Wyoming (Fitzgerald, 2011).

Leaving aside the possibility of actual dispersal and the question of Wyoming's policy performing its purported function of managing for a healthy wolf population, the concept of flex should be considered, as it is a crucial part of Wyoming's gray wolf management plan. The word "flex" is not an adjective, according to the Oxford English Dictionary (2014), though it is used that way in this formulation. It is employed here as an adjunct noun, modifying the word "zone." The word FlexZone is often used to describe commercial products; it has not been used in wildlife management prior to Wyoming's use of it. The term itself, the resultant division of land, and the bifurcation of trophy/predator status for the wolf in a single area all speak to a particular flexibility: the exercise of flexibility in the science of wildlife management and a pathologically hybrid characterization of the species being managed. These several characterizations deny the wolf discursive coherence and may limit its ecological role: the 2012 plan purportedly allowed for dispersal while subjecting dispersing wolves to hunting 100% of the time, even if that hunting was ostensibly regulated by trophy permitting during roughly 4.5 months of the year.

Conclusion

On December 29, 2014, a Utah hunter in search of coyotes—for which the state offers a \$50 bounty—shot and killed a 70-pound collared female gray wolf. The hunter reported the incident to state wildlife authorities, saying he mistook the animal for a coyote. The animal shot by the hunter was the Kaibab wolf. The Kaibab wolf, the lone disperser whose story began this chapter, had been dubbed "Echo" as a result of an online naming contest sponsored by a range of environmental groups (Zuckerman, 2014). Both the naming of the wolf and its death echo the case of 823f: the fallout from this case, as with that of 832f, shows how powerful human antipathies and sympathies alike are mobilized by the presence of wolves. It emphasizes social divisions and lays bare the gaps between different types of political authority, namely state and federal. Although the hunter may have mistaken the wolf he shot for a coyote, the presence of the wolf in an area where wolves have not been seen for many years, coupled with its lethal take by a hunter, underscore that much of what we do with wolves is predicated on what they do. What they do, above all, is move. That movement is not biologically constrained by political borders; it is defined by bioregion and its crucial parameters of prey availability and suitable habitat. Yet like 832f, Echo's death was predicated on and defined by the discourse of political borders and their manifestation in a hunter's bullet.

This chapter has reviewed a long history of characterizing wolves in terms of what they do, focusing on the key management concerns of population and dispersal. I have addressed the research questions set forth in the introduction to this study by showing how wolves are characterized with respect to what they do. In terms of what these characterizations imply for socio-political struggles, I have noted the suppression of sound science regarding population genetics by FWS, which has continued to cling to a 10/100 standard in 3 separate recovery areas in spite of evidence supporting larger metapopulations. This may show how science and politics interact, particularly how the former is at times suppressed by the latter. As I have noted, it may also indicate to some extent the agency's focus on limiting the numbers of a recovered gray wolf population to help assuage the concerns of stakeholders such as ranching and hunting groups, who generally oppose the presence of wolves. Though I cannot conclude definitively which of these two possibilities—the conscious suppression of science or a pragmatic embrace of low numbers to appease publics opposed to wolves—the administrative tension around what constitutes a minimum viable population, reflected in lexicogrammatical ways as shown above, points toward suppression. The enunciative force of the 10/100 standard may be a suppression of the science of population dynamics. As Zhang (2011) has noted,

"the threshold moment of enunciation is necessarily a moment of trickery, one that holds the secret of selection, subsuming and repression" (p. 215).

CHAPTER 4

CHARACTERIZING WOLF THREATS AND BENEFITS

In its 2011 legislative session, the state of Idaho declared a "state of disaster emergency" (Idaho Legislature, 2011, p. 3) based on the "numbers of Canadian gray wolves" (p. 3) within its borders. The legislature justified this move by citing the need to "safeguard the public, wildlife, economy and private property against additional devastation to Idaho's social culture, economy and natural resources, and to preserve the ability to benefit from private and public property within the state and experience the quiet enjoyment of such property" (p. 2). At the time the Idaho legislature declared this state of emergency, wolves were protected under the ESA after having been under state control for approximately a year and a half; this statement was hard on the heels of Governor C.L. "Butch" Otter's strongly worded letter, analyzed in Chapter 2, and it was written in a similar register of urgency and frustration. The state has gone on to enjoy newfound control over wolves after the May 2011 congressional delisting of wolves: between 400 and 600 wolves have been killed by humans in that state each year since delisting (Stone, 2014). Idaho's emergency declaration regarding wolves in 2011 is, in my assessment, an influential (if not identifiably causal) link in the discursive chain leading to the enunciation of states' rights in the 2011 federal budget rider that delisted the gray wolf in the Rocky Mountains. Therefore, it invites critical scrutiny of its rhetorical features for what they reveal about the rhetorical construction of

power/sovereignty, the ideologies under which wolves are viewed as an existential threat, and the construction and/or fracturing of bordered ecologies.

With this in mind, the primary purpose of this chapter is to analyze characterizations of wolves that are based on perceived threats and/or benefits presented by the species. I will analyze Idaho's state of emergency in detail, identifying numerous discursive features illustrative of power/knowledge and the rhetorical construction of the wolf as an existential threat to human interests and state power. As a complement, I present and analyze visual characterizations of the threat presented by wolves; these characterizations resonate positively with those of the Idaho state of emergency declaration in the construction of wolves as an existential threat. I supplement the discussion with an analysis of a positive characterization of wolf presence, particularly the possibility of wolf-livestock coexistence, advanced by the city of Ketchum, a tourism-oriented town in central Idaho.

In keeping with the tenets of context-sensitive discourse analysis (Huckin, 2002), I begin this chapter with a discussion of how threats presented by wolves have been characterized in the scientific literature. This establishes a context for the discussion of characterizations on the part of political entities, some of which rely on science but none of which are manifestly scientific in their discursive focus or attunement to audience. Then, I analyze various discursive artifacts that address the threats and potential benefits presented by gray wolves.

Theoretical Orientation and Contribution

In general, the tone and rhetorical thrust of much official discourse from Western states rises to a jingoistic celebration of state independence, symbolized and enacted by

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the characterization of the wolf as the enemy of independence and a foreign presence hybridized with a range of threats from outside the state's borders. As I show, the characterizations of wolves discussed here that primarily identify the species as a threat to human endeavors such as livestock grazing and even to human life seem to rely on appeals to national identity (life, liberty, property) more than on scientific evidence. In contrast, the city of Ketchum's rejoinder to the aggressive wolf management advanced by the state of Idaho relies on evidence and basic logic. This difference may highlight corresponding difference in ethical and epistemological orientations toward wildlife and toward the use of natural resources; it may also offer evidence for conclusions regarding the future of wildlife management, possibilities and constraints in human-nature relations, and rhetorical theory. I explore these implications in this chapter's conclusion.

Characterizing Wolves' Effects on Ecosystems: Science Weighs in

Scientific and managerial assessments of the ecological role of gray wolves are not uniform in their characterizations, but the preponderance of studies surveyed for this effort indicate gray wolves exert powerful material force on ecosystems through their behavior. In particular, their presence seems to catalyze so-called trophic cascades through which the species' predation habits result in increased food and habitat diversity and quality for a series of other flora and fauna. Below, I survey these general trends in scientific research and highlight some discontinuities in scientific discourse regarding the benefit/threat of wolf presence. This portion of the chapter serves a twofold purpose: first, to show that in spite of general consensus as to the ecological benefit of wolves, opinions among scientists differ and are likely shaped by a number of factors beyond empirical observation and measurement; second, to provide foundational footing for the discussion of rhetorical characterizations of wolves by official and vernacular sources to follow. For the purposes of clarity, I divide the discussion of scientific evidence regarding gray wolf threat/benefit into 3 categories: their effects on ecosystems in general; their effects on prey species; and their effects on human activities such as hunting and ranching.

Effects on Ecosystems in General

Studies have concluded that wolves have a top-down "trophic cascade" (Fortin et al., 2005; Estes et al., 2011) effect on ecosystems. The redistribution of energy through wolf predation benefits the "scavenger guild" (Wilmers et al, 2003, p. 909) of eagles, bears, ravens, magpies, red fox and the like. This effect on food availability for other species is not limited to scavenging. Indeed, wolves' check on elk population affects the density and availability of fruit berries such as serviceberry, which has resulted in their increased consumption by grizzly bears (Ripple et al., 2013). This research is "consistent with a trophic cascade involving increased predation by wolves and other large carnivores on elk, a reduced and redistributed elk population, decreased herbivory, and increased production of plant-based foods that may aid threatened grizzly bears" (Ripple et al., 2013, p. 223). This benefit to other species bestowed by wolves' depredation habits may be especially influential given a changing climate (Wilmers & Getz, 2005). As winters in the Yellowstone region become shorter and warmer (Balling et al., 1992; Romme et al., 1991), ungulates like deer, elk and bison are better able to survive, thereby limiting carrion scavenging. The reintroduction and recovery of wolves, however, appears to have blunted this effect by making carrion more readily available during the

late winter months through their depredations on ungulate populations, especially elk, earning them the title "climate change buffers" (Wilmers & Getz, 2005, p. 1).

In addition to wolves' effects on food supply for scavengers, many ecologists have advanced the theory that wolves' presence also affects the success of flora such as willows and aspen (Chadde & Kay, 1996; Eisenberg, 2010; Ripple & Beschta 2004a, 2004b; Wolf et al., 2007) by discouraging elk from congregating in riparian (near waterways) areas and overbrowsing. Often characterizing the wolf as an "apex consumer" (Estes et al., 2011) or "keystone predator" (Beschta, 2003), many investigations have concluded that the wolf's top-down effect on ecosystems is influential in terms of how the ecosystem looks and how it works (Miller et al., 2001; Soulé et al., 2003; Ray et al., 2005). For example, several studies have linked increased success of woody species like willow and aspen to the success of songbirds, which enjoy increased cover in the presence of willow and aspen (Hebblewhite et al., 2005). Further investigations have associated the return of wolves with the resurgence of beavers—correlated to an increase in woody flora—which in turn positively affects the life cycle and population of fish such as trout (Ripple et al., 2014).

Not all assessments by wolf experts, however, embrace the idea that wolves have such profound top-down effects on ecosystems. Mech (2012) has suggested that much of the data on which such studies rely is correlative and does not convincingly show causation. In an article entitled "Is Science in Danger of Sanctifying the Wolf?" published in the journal *Biological Conservation*, Mech cited emerging studies which contradict the positive correlation between wolf predatory presence and behavior changes in elk that result in less intensive herbivory in riparian areas (e.g., Kaufmann et al., 2010). Mech bemoaned the wolf's "iconic cachet" (p. 143), which he sees as built in part by scientific studies showing the species' causation of trophic cascades. Mech sees these claims as overinflated and damaging to wolf management outside the protective microcosm of YNP because "any such cascading effects of wolves found in National Parks would have little relevance to most of the wolf range because of overriding anthropogenic influences there on wolves, prey, vegetation, and other parts of the food web" (p. 143). Although some recent research following the publication of Mech's 2012 article continues to question the wolf's strong role in trophic cascades (e.g., Middleton et al., 2013), the positive correlative data regarding wolves' influence on riparian ecosystems and the scavenger guild is voluminous in comparison. Ripple et al. (2014) have placed the gray wolf in a cadre of seven terrestrial carnivores worldwide—the others are the sea otter, the African lion, the dingo, the puma, the leopard, and the Eurasian lynx—whose effects on ecosystems are exerted across 3 categories of trophic cascades, making their impact powerful indeed.

As Mech contends, some of the data supporting trophic cascades cannot by nature establish causation once and for all, as ecosystems are rife with variables and the reintroduction of the wolf is but one in a sea of such factors, which include climate change and a range of other phenomena (Kauffman et al, 2010). Fundamentally, then, Mech's claim regarding the danger of relying on correlative data as ironclad truth is a sound one. Nevertheless, given wolves' established role in the maintenance of biodiversity in an era when biodiversity is severely compromised by human presence, the value of biodiversity may dictate science's valuation of this predator as a "keystone."

In addition to berating "science" for overvaluing the gray wolf, Mech (2012) was

critical of the news media's embrace of studies supporting wolves' role in trophic cascades. In doing so, Mech cited 11 news articles. A much more exhaustive study of media coverage of wolves from 1999 to 2008 has revealed a decidedly different pattern. Houston et al. (2010) reviewed 6,000 news articles for portrayals of wolves. Coding for positive or negative depictions of wolves, the study found "an increase in the percentage of discourse about wolves that is negative" (p. 394). Specifically, greater than 70% of the paragraphs coded in the study advanced negative views of wolves. In contrast, just 2.3% of the paragraphs coded in the study cited the species' beneficial effects on ecosystems. The same amount of paragraphs (2.3%) cited negative effects on ecosystems. With respect to wolves' effects on human interests, the authors found that, whereas 30.5% of articles in the study commented on negative effects on human activities, a scant 2% noted the species' positive impacts on human activities. Mech's claims of bias on the part of the media, then, seem even less well founded than his faulting of science for overvaluing the animal's influence on ecosystems.

While there are outlying studies that question the wolf's role as the instigator of a trophic cascade that affects ecosystems by enhancing biodiversity, these studies do not discredit such a role. Rather, they generally operate from a scientific skepticism that cautions against whole cloth embrace of correlative data as necessarily illustrative of causation. This is predictable Baconian skepticism, a hallmark of scientific investigation for centuries. Such skepticism is probably healthy, as it may encourage more robust, repeatable and controlled studies in the future. Stabilized wolf-prey populations such as the one found in YNP (Smith et al., 2013) will likely allow for continued exploration of the wolf's ecological effects. Yet an excess of skepticism about this primary predator's

role may support continued persecution of the wolf. In much the same way a strict skepticism may question causal connections in the anthropogenic forcing of the climate through greenhouse gas emissions (Boykoff & Boykoff, 2004; Corbett & Durfee, 2004), the questioning of wolves' powerful effect on ecosystems may engender an embrace of the status quo attitude toward them. While complicated, that status quo attitude seems to generally fall into a negative register, as the Houston et al. (2010) study of media accounts showed.

In an era in which biodiversity is threatened as never before by human influences and in which climate change is a certainty (Kokic et al., 2014), the presence of a predator with far-reaching effects on ecological health—including the buffering of climate change—needs science on its side. As Latour (2004) has suggested, this is more a matter of fact than one of concern, and despite the constructedness of fact by discourse and practice, in a time and place of "crisis," (Cox, 2007), Facts and Science are proper nouns with important discursive roles, and often the manufacturing of controversy in the face of overall scientific consensus can have a negative effect (Ceccarelli, 2011). Ultimately, the preponderance of evidence, coupled with well-founded human concern for biodiversity in the face of global ecosystemic crisis, would tend to accept the facticity of the wolf as a beneficial presence within ecosystems. In spite of this, matters of concern remain: first, the question of how wolves affect prey species through predation, an evolutionary mandate that ostensibly places the animal in conflict with human hunters. Second is the question of wolves' effects on livestock. Just as with their effects on ecosystems, appraisals of how wolves affect these human interests vary widely across political affiliation and jurisdiction and across social groups. Human responses to these perceived

and/or real threats presented by wolves are equally varied: while some bristle at the idea of any wolf ever being trapped or shot, others sponsor "predator derbies" such as the one mentioned in Chapter 3. These responses are increasingly common features of state (mis)management of wolf populations.

Effects on Prey Species

Mech (1970) identified a number of effects wolves can have on the species on which they prey. These species range in variety, from Dall Sheep in Northern climates to moose in the upper Midwestern United states to largely elk in the Rocky Mountains. These effects are largely positive, and they range from the reduction of disease, to the stimulation of reproduction among prey populations, to helping these species retain their protective adaptations such as speed and agility (Mech, 1970). Wolves can potentially reduce the incidence of diseases such as brucellosis in their prey species by culling infirm, sick animals from the herd through predation. The presence of wolves also tends to reduce elk congregation in larger herds, a practice that tends to increase the spread of disease as a function of proximity. Widespread elk feeding programs, a common state response to reductions in elk herds, have exacerbated the incidence of diseases like brucellosis, as some have claimed, and the presence of wolves can potentially counteract this effect. This set of effects whereby wolf predation improves the health of herds of prey is known as the "sanitation effect" (Mech, 1970, p. 265). In addition to this sanitation effect, wolf predation on ungulate herds positively affects fertility in prey populations (Mech, 1970; Pimlott, 1967). By killing older animals and therefore reducing a herd's pressure on finite resources, wolves allow younger, more fertile animals to breed more often.

Wolves' Effects on Human Hunting and Livestock Production

In spite of wolves' generally beneficial effects on the health of its prey species, humans often see the wolf as a direct competitor for big game (Boyce, 1995; Vales & Peek, 1995). While to some extent wolves may compete with human hunters in the general sense of numbers (both human hunters and wolves necessarily reduce herd numbers, at least temporarily), such claims are false. Human hunters generally seek socalled "trophy animals," which are not typically the animals brought down by wolves. In the case of elk, for example, the ideal trophy animal is a large male, or bull, with large seasonal antlers, or a "rack." This "rack" is a defense mechanism, one bull elk wield against one another for access to females and in self-defense against pursuing predators (Clutton-Brock, 1982). Generally speaking, such animals are better able to defend themselves against attacks by wolves. Against a bullet, however, such a defense is without effect. Humans and wolves, then, are after different animals. While it could beand is often—argued that wolf predation reduces herd numbers generally and thus tends to reduce the chance of a trophy animal being produced in the first place, wolves' positive effect on the overall fitness of a herd would suggest precisely the opposite. Thus, the protestations of hunting groups such as Utah's Big Game Forever, which loosely and positively correlates wolf presence to the reduction of opportunities for trophy hunting (Big Game Forever, 2013), are counterintuitive and scientifically unsound.

Wolves are far less likely to prey on a healthy adult male ungulate with the defense mechanism of antlers than are human hunters (Wright et al. 2006). Thus, human hunters have a greater effect on the male portion of ungulate populations of "high reproductive value" (Wright et al., 2006, p. 500) than do wolves. Moreover, when wolves

prey on female ungulates, particularly elk, data show that human hunters are more likely to kill animals of high reproductive value (i.e., males and especially female in prime reproductive condition) than are wolves, which will tend to prey on young and old elk (Carbyn, 1983). In multiple ways, then, claims that wolves compete directly with human hunters rather than exerting a healthful, balancing effect on ungulate herds are spurious. Indeed, humans tend to exert the greatest effect on prey animals in nearly every habitat worldwide, much greater than the influence of predators (Ciuti et al., 2012). Ultimately, human hunters' complaints regarding a reduction in opportunities to kill a trophy animal are perhaps founded in a frustration with the difficulty of locating and killing a trophy animal such as a bull elk in a landscape populated by nonhuman predators, as this results in less elk congregation in areas easily accessible by motorized tools such as All Terrain Vehicles (ATVs), which are often employed by hunters (Ciuti et al., 2012).

Wolves can and do kill and consume livestock. In addition, the presence of wolves seems to result in increased mobility among herds of cattle in particular, which exacts an energetic toll on the prey animal even if it is not consumed by wolves (Laporte et al., 2010). As domesticated species, livestock such as sheep and cows have been almost entirely stripped of adaptive defenses in the face of predation through millennia of human husbandry, making killing them substantially easier than killing wolves' native prey. As I have established, a significant component of human husbandry has been the elimination or extirpation of native predators. This elimination, as Lopez (1978) has argued, seems to have been carried out with particular zeal in the case of the gray wolf, especially in the American West.

Fundamentally, concerns that the presence of wolves will result in livestock loss

are founded in fact. The force of that fact, however, is blunted by two other facts. First, fewer stock animals in the American West die from wolf predation than from nearly any other single factor. A United States Department of Agriculture report, for example, shows that in Wyoming in 2012, wolves were responsible for fewer cow deaths than were grizzly bears, covotes, mountain lions, old age, lameness/injury, digestive problems, respiratory problems, other disease, weather, poisoning, calving, and "all other nonpredator" causes (USDA, 2013). Of all causes of cattle death in the state of Wyoming in 2012 (41,000 deaths), wolves were reportedly responsible for 600, or 1.5% of losses (USDA, 2013). Second, should a documentable wolf depredation on livestock occur, systems of compensation are in place and have been in place since the beginning of reintroduction in the Rocky Mountain region (Musiani, 2006). These compensation programs began privately, sponsored by the wildlife advocacy nonprofit Defenders of Wildlife, and have lately been codified in federal legislation, namely the 2009 public lands omnibus bill (Handwerk, 2013). In addition to these factors, wolf depredation on livestock has consistently been "one third to one half of the levels predicted" by the 1994 Final Environmental Impact Statement (Bangs et al., 2001). Finally, nonlethal measures for controlling wolf depredation are increasingly being shown to work effectively against wolf depredation (Breitenmoser et al., 2005).

The Idaho Legislature Cries Wolf, and the Echo Resonates In

Washington

As I have argued in Chapter 2, discourse on wolves emanating from officialdom in the State of Idaho is noteworthy for its bellicose posturing with respect to state sovereignty and its shrill register regarding a perceived implantation of the gray wolf into the state without the input of its citizens. This official position, emblemized by statements issuing from the office of Governor C.L. "Butch" Otter and from the state legislature finds an intriguing contrast in a recent campaign to foster coexistence between predators like the gray wolf and livestock operations, emblemized most clearly by a program called the "Wood River Project," which has used nonlethal control methods to virtually eliminate wolf depredation in an area near Ketchum, Idaho. These two statements are discursively rich, particularly when paired with one another. They show the bipolar nature of attitudes toward wolves. More significantly, Ketchum's statement regarding the sustainability of coexistence with gray wolves alongside continued exploitation of public lands for grazing is the more reasonable and convincing of the two. In the case of the wolf, the poles of scientific evidence and common sense are aligned: the presence of the species, while not without effect, is not anywhere near as destructive as state discourse regimes suggest.

The Idaho Legislature Cries Wolf

The State of Idaho's declaration of emergency is a 3-page document with four sections. The first section details the legislature's "findings and intent." It begins by invoking the state constitution, which states that "all men are by nature free and equal, and have certain inalienable rights, among which are enjoying and defending life and liberty; acquiring, possessing and protecting property; pursuing happiness and securing safety" (p. 1). Having rooted the document's purpose in the secure moorings of a Lockean-Jeffersonian system of individual rights, the document goes on to cite state statute on wildlife management, which declares all wildlife within the state to be the

property of the state. The statement concludes with "the state of Idaho therefore has the responsibility to manage the big game animals of the state" (p. 1). Graphed as a simple Aristotelian syllogism, this argument can be encapsulated thus:

- <u>Major premise</u>: Idaho citizens ("men") have the right to protect property, happiness and safety.
- <u>Minor premise</u>: Wildlife are the property of Idaho citizens.
- <u>Conclusion</u>: Idaho is responsible for managing its big game animals.

The most casual scrutiny of this syllogism reveals its terminological inconsistency and therefore its weakness as an argument. The inconsistency in question is a slippage between "wildlife" and "big game animals" and between "right" and "responsibility." As to the first, wildlife and big game animals are not the same, but they are treated as such. This presupposes that wildlife begins and ends with big game animals: the term "wildlife" therefore implicitly excludes nongame animals and predators in this configuration. This is a problematic exclusion, both from the perspective of the Endangered Species Act, under which wolves are clearly defined as wildlife by being listed under provisions of the Act, and under Idaho law, which states "wildlife" means any form of animal life, native or exotic, generally living in a state of nature" (Idaho legislature, 2015).

After defining wildlife and asserting its rights to manage it, invoking in the process foundational tenets regarding life, liberty and property, the second finding of the Idaho state legislature deals with wolves more specifically. It reads as follows (italics added to emphasize key discursive features):

The Idaho legislature finds and declares that the state's citizens, businesses, hunting, tourism and agricultural industries, private property and wildlife, are immediately and continuously threatened and harmed by the sustained presence and growing population of Canadian gray wolves in the state of Idaho. The Idaho legislature, therefore, finds the population of gray wolves in Idaho, having been introduced into the state in 1995, over the united objection of the Idaho congressional delegation, Idaho legislature, Idaho governor, Idaho counties and numerous Idaho agricultural groups who were gravely concerned with the negative effects this action would impose on Idaho and Idahoans, is now many times exceeding the target number originally set by the federal government and the number set in Idaho's federally approved 2002 wolf management plan. The U.S. fish and wildlife service (USFWS) has delisted the gray wolf in Idaho in 2008 and 2009 returning management to the state, only to be sued both times by environmental groups forcing the wolf to be relisted as endangered. As a result of all the above, the legislature finds that public safety has been compromised. economic activity has been disrupted and private and public property continue to be imperiled. The uncontrolled proliferation of imported wolves on private land has produced a clear and present danger to humans, their pets and livestock, and has altered and hindered historical uses of private and public land, dramatically inhibiting previously safe activities such as walking, picnicking, biking, berry picking, hunting and fishing. The continued uncontrolled presence of gray wolves represents an unfunded mandate, a federal commandeering of both state and private citizen resources and a government taking that makes private property unusable for the quiet enjoyment of property owners. An emergency existing therefore, it is the intent of the legislature to regulate the presence of Canadian gray wolves in Idaho in order to safeguard the public, wildlife, economy and private property against additional devastation to Idaho's social culture, economy and natural resources, and to preserve the ability to benefit from private and public property within the state and experience the quiet enjoyment of such property (Idaho legislature, 2011, p. 1-2).

A number of discursive and argumentative features warrant attention here. The

first is based on genre. The declaration of a state of emergency is reserved for extreme situations such as "disease epidemics and other public health emergencies" (ASTHO, 2015). The declaration of a state of emergency should not be taken lightly by public officials, as citizen attitudes and behaviors can be dramatically affected in negative ways by the fear inevitably aroused by such declarations (Mileti et al., 1990). The statement is by definition something that can engage panic. Beyond the ways in which the statement

itself as a genre is unwarranted, much of the argument runs counter to scientific findings and common sense. One example is foreignness and invasiveness. As I have argued previously, state political leaders seem particularly inclined to characterize gray wolves, a species endemic to their respective states, as foreign. Idaho's legislature incorporates this othering seamlessly into the narrative of this finding section, erroneously identifying the gray wolf as Canadian (not a known subspecies, as I have established). This effect is furthered by characterizing the species' expansion as unchecked: the legislature cites the "uncontrolled proliferation of imported wolves" (p. 2) as part of the rationale for declaring a state of emergency. To the contrary, there were at this time several controls on the species' expansion, from lack of habitat to lethal controls by humans in the case of wolves confirmed to be depredating on livestock (USDA, 2010, p. 15). The error continues in the state's identification of the wolf as officially endangered. Although protected under the ESA during periods of listing, the animal exists in the nonessential experimental limbo I have described in Chapter 2. This designation subjects the animal to continued control, up to and including lethal control, both by landowners and by wildlife managers, a policy that continued under the animal's protection under the ESA as nonessential experimental (FWS, 2005, p. 1294). Characterizations of the gray wolf, then, are consistently wrong here in a basic sense.

Federal-State Collusion or Collision?

As we have seen in the case of Idaho's governor, the state legislature appears to hybridize as a collective threat the overreach of the federal government and the presence of the gray wolf. As was the case with Otter's letter, which railed against oppressive "ham-handed" federal management of wolves while ironically citing the Secretary of the Interior and Otter's joint goal of delisting the population of gray wolves, this statement by the legislature characterizes the government as a threat while directly citing the state and federal governments' cooperation. Namely, the statement says that FWS had delisted the population twice before. This is true, and it implies the two governments' shared goals of state wildlife management. This implication of state-federal agreement is reduced in strength, however, by the rhetorical force of the statement as a whole, which is to characterize the federal government and the wolf as a conjoined threat to the state and its residents. The legislature declares toward the end of its finding that "the continued uncontrolled presence of gray wolves represents an unfunded mandate, a federal commandeering of both state and private citizen resources and a government taking" (p. 2). This sentence, with its series of names for what gray wolf presence "represents," is discursively active. Conceptually, the phrase resonates with anti-federal sentiments common among Western states, where distinctions between public and private land often blur, particularly when so much of these states are federally-managed land leased by private individuals for ranching activities cite. As in the recent case of Cliven Bundy, a cattle rancher who refuses to pay federal lease fees on land on which his cattle graze (Nagourney, 2014), ranchers at times seem to lay false claim to lands that are effectively leased to them by the American public rather than owned by them.

With these false claims to possession of public lands in mind, the verb "represents" in the phrase "gray wolves represent an unfunded mandate" is an apt usage. From Plato onward, the Western mind has been plagued by the notion of representation, with its inherent looseness and imprecision. John Locke, whose sensibilities regarding property drive Idaho's statement, abhorred language's opacity. Ironically, the legislature embraces that very opacity with this choice of verb. Not merely using the verb "is," as Plato or Locke may have preferred, the legislature chooses "represents." Choosing this verb may stimulate the hyperbole that follows regarding what the wolf represents, as "represent" may implicitly allow overstatements such as federal taking, federal commandeering, and the accusation that both state and private resources are compromised by wolves. After all, if something just represents something and is therefore not that thing, I cannot be held to the same standard regarding what I accuse something of *representing*, which is not the same as what I accuse it of *being*.

Legally speaking, government taking is often carried in the enforcement of the doctrine of eminent domain, whereby a government condemns property for the greater good, often a highway or railway easement (Epstein, 1982). This practice has been lately used, amid much controversy, to establish rights of way for the planned Keystone XL petroleum pipeline (Elbein, 2012). In the case of Idaho, no such taking has happened or ever been discussed regarding wolves, except in this single communication, which cloaks the accusation of taking as a representation. The phrase complements this accusation of taking (cloaked under the guise of representation, thereby blunting the accusation) with an accusation of "commandeering." Whereas taking happens administratively and legally, commandeering happens in a less mediated fashion: police commandeer property, for example, if they deem its use necessary for the greater public good in the immediate pursuit of a suspect. The state thus cleverly characterizes the threat it and its beleaguered citizens face as both legal/administrative (as power wielded from afar) and in a more immediate sense (as the threat of power that can be enforced at any time and at

any place within a territory). This power is further characterized as exercised irrespective of property ownership. Given the property-focused language of the Idaho constitution, on the tenets of which this statement is founded, such a threat is truly grave, as it endangers the notion of territoriality itself by posing the threat of the taking/commandeering of property, both of which sever a property holder's rights. The threat presented by wolves, then, is first hybridized with the threat presented by the federal government; then, that overreaching government/wolf power is constructed as both distant/powerful and immediate/powerful. The species assumes legendary proportions indeed in this characterization: it becomes a ubiquitous threat, a power that can exercise itself at any moment, terrorist-like, unseen, unnoticed and the more deadly for being so.

The Wolf Blows the House Down?

The Idaho legislature has found that the "uncontrolled proliferation of imported wolves on private land has produced a clear and present danger to humans, their pets and livestock, and has altered and hindered historical uses of private and public land, dramatically inhibiting previously safe activities such as walking, picnicking, biking, berry picking, hunting and fishing" (p. 2). This sentence presents a number of noteworthy features that, given the contexts in which they circulate, are rhetorically fertile. I will focus on 3: the notion of "historical uses," the identification of a clear and present danger to various public interests; and the notion of safety. First, the claim regarding historical uses and their forced alteration/hindering presupposes that historical uses of Idaho's territory are threatened by wolf presence. This is not the case unless one presupposes that history does not extend past settler occupation of Idaho. Previous occupants of the area

now known as Idaho such as the Nez Perce have a different attitude, in general, about wolf presence (Salvador & Clarke, 2011). Indeed, for many indigenous cultures, the wolf is a seen as an important presence both materially and spiritually (Lopez, 1978), and is revered for its superior hunting skills and ability to fast for extended periods and employed as a totem or "weyekin" (Salvador & Clarke, 2011) representing one's clan and place in the world. Far from being threatened by the wolf, these "historical uses" were *predicated on* coexistence with wolves. The statement thus silences a range of historical interests, highlighting Anglo-European colonizers' activities while suppressing those of other cultures.

Second, the finding states wolves present a "clear and present danger" to humans, pets and livestock. The tone set by this statement, as is true of the document in general, is one of alarm, verging at times on panic. Indeed, the legislature's use of the adverb "dramatically" in reference to how the wolf has "hindered" human recreational activities perhaps encapsulates this tone most accurately: it is dramatic. The phrase "clear and present danger" emanates from an American jurisprudential doctrine that determines whether First Amendment rights (assembly, speech, and press) can be abridged (*Schenck v. United States*, 1919). These two associations work in opposing ways in terms of implication, and both are rhetorically active. In the first sense, clear and present danger is the judicial test for determining when to illegalize speech. This legal doctrine has been used to gag war protestors, for example, when the government cites national security concerns. A clear and present danger, if identified, allows infringement of rights. The Idaho legislature is identifying wolves as a danger, which presumably would allow for the abridgement of the federal government's right to protect the animal. Leaving aside the

fact that the nonessential experimental designation allows lethal take of a wolf if it presents a danger (ESA, 1973; FWS, 1987; FWS, 2005), the state is ironically using a doctrine that *abridges an inalienable right* (under Idaho state and federal law) in order to *assert its inalienable right* to control wolves. Besides its ironic nature, this statement shows that what is at stake, ultimately, is perhaps less wolves themselves, which are folded here into a legal doctrine allowing the state to assert its perceived right to control wolves, and more the establishment of territory and authority.

Washington Residents Against Wolves: A Visual Corollary to Idaho's Emergency

As a "clear and present danger," wolves are not merely characterized as a threat to livestock and to pets, but to human bodies themselves. In this respect, the drama of Idaho's statement is on a par with many statements in a vernacular register emanating from special interest groups opposed to wolf presence. Like Idaho's, such statements emphasize territory and place and the threats presented by wolves. They engage in similar othering. Rhetorically, they are similar in tone and in inaccuracy with respect to the actual threat presented by wolves. Because such statements resonate so directly with the dramatic, even hyperbolic tone set by the Idaho legislature and provide a clear visual corollary, I will include one such statement from the Washington group Washington Residents Against Wolves (WARAW) to illustrate the commonality of claims regarding wolf threat emanating from state and private interests (see Figure 4.1). I will then briefly discuss these connections and conclude the argument regarding Idaho's state of emergency declaration. The image in Figure 4.1 has recently been featured on billboards in the State of Washington. As prominent visual characterizations of wolf presence in the state of Washington, these billboards may exert a pedagogical effect, whereby the creators of the text "selectively appropriate, relocate, refocus and relate to other discourses" (Bernstein, 1990, p. 184) the discourse of wolf management in Washington. By "pedagogic," I follow Bernstein's (1990) sense of the pedagogic force of advertising, but I keep in mind that for a discursive artifact to be pedagogic, it need not be deployed in a strictly educational context. Rather, advertising can "teach" particular orientations toward a thing or a social practice by reinforcing ideologically-driven, naturalized notions of what something is and, as in this case, the threat it presents. The billboard in this image recontextualizes (Van Leeuwen, 2008) a management question, which is ostensibly driven by scientific assessment of wolf threat, as a question of existential threat rooted in folkloric notions of the wolf as metaphor for a murderer or a rapist. The "other



Figure 4.1: Washington Residents Against Wolves' Billboard. Reprinted with permission from WARAW.

discourses" in question here, then, are folkloric characterizations of the wolf as a threat to human life that anthropomorphize the wolf and fuse it with a general threat of violence, tuned particularly toward the female gender.

In addition to exerting possible instructional influence regarding the threat posed to humans by wolves, these billboards seem poised, as prominent as they are, to function rhetorically as "image events" (Deluca, 1999) that invite widespread dissemination through their visual shock value. Indeed, in addition to being featured on a series of billboards, this image has been disseminated widely through media channels. A search of the World Wide Web using the engine Google (limited to photographic images) shows this image as the first hit, indicating its rank in page views. Although the search engine does not provide specifics of the algorithm that places the image in that position for me as a searcher, the image nevertheless seems to be commonly circulated. Adding to evidence of these billboards' rhetorical functioning as image events is their frequent mention in news articles. A Web search for the exact phrase "Washington residents against wolves" coupled with "billboards" using the search engine Google reveals 23 results: one from national news source NBC and the remainder from regional newspapers or environmental advocacy sites. While this may seem like a modest amount of dissemination, the group has a mere 20 members as of this writing (Weaver, 2015). In proportion to its membership, then, it is likely the group's arguments-by-image are more influential than might be expected. Adding to the group's possible influence is it social media presence: its Facebook page has 1,802 "likes."

Washington Residents Against Wolves cites "real dangers to human health for failing to manage the wolf and control its population numbers" (WARAW, 2014). The

group's name foregrounds a focus on the borders of a state and concerns about wolves "coming into Washington" (WARAW, 2014). In addition to foregrounding state territory and a perceived undue incursion on it by wolves, the language often used by the group invokes the notion of labor, long a contentious aspect of debates regarding who belongs in a territory and who does not. Specifically, the group claims on its website:

the job of 'predator' in Washington is already filled by cougars, bears and coyotes. By adding a wolf to the mix, we are forcing predators to compete for a limited prey base and we know they will move on to domestic animals and possibly children as new sources of food (WARAW, 2014).

This is a statement of characterization that resonates with much discourse on socalled "illegal aliens" in its implicit framing of the issue as an economic one, as the use of the term "job" would tend to indicate. The othering inherent in this discursive choice is perhaps furthered by the functionalization (Machin & Mayr, 2007) of the wolf as a predator, a characterization of its primary function that does not reference its ecological effects, elucidated above as generally healthful. This is similar to the "predator" designation in the state of Wyoming (see Chapter 3), which is the designation that allows for unlimited killing of wolves.

The images featured on the billboard read similarly to the written text from this press release: both the sentence and the billboard escalate from identifying wolves' typical prey base to claiming children, domestic animals and livestock will become their prey. The image characterizes a wolf as a menacing set of eyes, with a series of threatened and defenseless potential victims populating the lower half of the image, moving closer and closer to defenseless denizens of the domestic sphere (left to right: elk, fawn, mule deer, domestic calf, dog, child) as the viewer scans from left to right. As one scans the billboard in a left-to-right motion, one's eye moves from a wolf's more traditional prey to fictionalized prey: human children. As Bangs et al. (2005) note, there is not a single documented attack from a wolf on a person in the Rocky Mountain region.

Although the majority of wolves are not black (Mech, 1970), the wolf pictured in this image is. As I discussed in Chapter 2, the visual characterization of wolves often features black wolves in a greater proportion than the actual percentage of wolves with black pelage. Since blackness is all too often a visual/discursive marker associated with the "visual communication of racism" (Van Leeuwen, 2008, p. 137), as Van Leeuwen notes, visual depictions of blackness can easily be denied as having a basis in racism, and that deniability may enhance the discursive power of such characterizations. While I readily concede that this is not an image that represents a racist view in the human realm, blackness does consistently mark otherness in discursive representations, and its effects may be influential (hooks, 1990).

Beyond this use of othering through color is the way the wolf is portrayed, paradoxically, as a human-like figure. We see only the wolf's eyes rather than its snout, legs or any other feature relevant to its status as a predator. Although wolves' vision is fairly acute, (Mech, 1970), vision is not the wolf's primary sense. Rather, the nose (acute scent), legs (ability to give chase at high speeds for extended periods) and teeth (biting and cutting) are arguably the features that define the wolf as an efficient predator. Humans, however, rely more on sight than on any other sense. Foregrounding the wolf's eyes casts it as a sort of human-wolf hybrid and a wild panopticon: a phantom menace present at all turns and on all sides, waiting to ambush children and pets. The image resonates Idaho's statement, which identified the wolf as a "clear and present danger." Although it is represented as a disembodied set of menacing, yellow eyes rather than a complete body, the wolf in WARAW's billboard seems a danger indeed. Just as in the cultural model/myth of Little Red Riding Hood, the wolf is both a threatening animal and a metaphor for a threatening human—a rapist or murderer (Zipes, 1983). Adding to this effect of the wolf as a hybrid threat is the use of a female child on the swing. The menacing black wolf is after female flesh in particular, this billboard implies. If this claim seems overbold, I offer Figure 4.2, recently posted to WARAW's Facebook page.

Figure 4.2 presents such as rich text as to preclude a thorough reading of its many themes beyond how it implicitly characterizes the wolf. With respect to wolf characterization, my fundamental claim regarding this image is that it evinces the group WARAW's presupposition regarding the connection with the state of wolf management



Figure 4.2: Little Red with Gun. Reprinted with permission from WARAW.

and folkloric characterizations of wolves: it is assumed, in the face of all data to the contrary, that wolves present a threat to human children, particularly female ones. Although there is no wolf present in this image, we (assuming for the moment a Westernized "we," though as Zipes (1983) has established, versions of the Little Red myth are extant in Chinese folklore and across many other cultures) know what creature the barrel of the sizeable pistol wielded by this lipstick- and rouge-coated child is pointed at: a wolf. The image in a way acts as a complement to the billboard, de-emphasizing the presence of the wolf and inscribing the creature as a metaphor of threat. Ultimately, WARAW's imagistic characterizations of the wolf disproportionately and inaccurately represent the threat to human life presented by wolves in the state of Washington or elsewhere. Beyond mere misrepresentation, however, which is predictable given the group's stated aim of being "against" wolves, WARAW's ready embrace of folkloric and largely inaccurate assessments of the risks wolves present a grave threat to any claim the group might make to the "effective wildlife management" it espouses on its website (WARAW, 2015).

Mitigating the Threat of Wolves: An Idaho City Speaks Out

Effectively managing wolf populations in the presence of domestic livestock has indeed been a difficult issue; I do not challenge the fundamental conflict inherent in the presence of a potential competitor against human hunters and potential predator of defenseless range-going livestock. I have, however, shown the ways in which the negative characterizations of the wolf I have reviewed seem more based on political posturing than in scientific consensus or empirical investigation. There is a significant discursive gap, then, between scientific characterizations of the wolf's impact (which, as we have seen, tend to suggest that impact is minimal and, where it is less than minimal, the ecological benefits of wolf presence far outweigh any detriment) and characterizations found in political statements such as Idaho's state of emergency and statements of special interest groups such as WARAW.

In the state of Idaho, those who believe it may be possible for domestic livestock and wolves to share the same territory have engaged in an experiment over the past several years in central Idaho near the town of Ketchum. Dubbed the "Wood River Project," this program, sponsored by the environmental group Defenders of Wildlife, set out to test the effectiveness of measures such as nighttime corralling, electric fencing, flagging (wolves appear to distrust a flag or similar item waving in the breeze and therefore tend to stay away) to deter wolves from pursuing livestock as a prey source (Taylor, 2011). Adding a discursively notable valence to Idaho's political conversation about wolves, the general trend of which is generally decidedly antiwolf, the city of Ketchum, a tourism-focused town in central Idaho, recently issued a statement regarding the success of this program. Ketchum's statement is notable for its orientation to solutions to the problem wolf-human coexistence and for its rhetorical rigor, particularly when compared with the statements of the state's Legislature and those of WARAW. Below, I excerpt a significant portion of Ketchum's statement with italics added to features I deem especially important. Then, I isolate a number of important features for granular analysis. The statement reads as follows:

A RESOLUTION OF THE CITY COUNCIL OF KETCHUM, BLAINE COUNTY, IDAHO SUPPORTING THE VALUES OF WILDLIFE CO-EXISTENCE AND RECOGNIZING THE WOOD RIVER WOLF PROJECT

WHEREAS, the City of Ketchum's 2014 Comprehensive Plan outlines its Community Vision and Core Values placing "great value on the exceptional natural setting and resources of the Wood River Valley" and the importance of being stewards of public lands and the need to conserve natural resources for future generations; and

WHEREAS, The 2014 Comprehensive Plan states that these "environmental features and resources sustain our economy and are why many people choose to live in Ketchum."

WHEREAS, the public lands surrounding Ketchum are for the most part natural and wild, offering habitat for deer, elk, moose, bears, mountain lions and wolves, but this landscape is also shared with recreational users, and sheep grazing which, since the 1880's, has been a part of Ketchum's history; and

WHEREAS, the existence of Gray Wolves in Blaine County provide increased opportunities for wolf watching and tracking for residents and visitors alike; and

WHEREAS, the City of Ketchum values and believes that humans, livestock and predators, including wolves, can co-existent on public lands as demonstrated by the Wood River Wolf Project, a collaboration with Blaine County, Lava Lake Land and Livestock, Defenders of Wildlife, federal land managers, and wildlife experts. This effort, started in 2007, has proven how a suite of proactive non-lethal control measures has helped keep sheep and wolves alive while sharing the landscape. To date, less than 0.03 percent of more than 25,000 sheep grazed annually in the area have been killed by wolves. This is the lowest loss rate in high density wolf and sheep grazing range in Idaho proving that these methods can protect livestock, save ranchers' money, and reduce lethal actions against wolves; and

WHEREAS, these values of co-existence and beliefs are not shared by Idaho Governor Butch Otter and the Legislature which, in 2014, have widened their war on wolves with the creation of the Wolf Control Board to propose new programs and incentives for the killing of wolves, reducing the statewide population to a minimum number of 150, even though more than1400 wolves in Idaho since 2011 (Idaho Fish and Game Reports) have been killed through trapping, snaring, aerial shooting and expanded hunting seasons; and

WHEREAS, the need for a viable wolf population has been recognized by conservationists nationally, including award winning filmmakers and Ketchum wolf experts, Jim, Jamie and Garrick Dutcher in a June 2014 New York Times Op Ed article that states 'these predators are critical components of the ecosystem, a so-called keystone species....They are true ecological assets, but not if they are reduced to ecologically irrelevant numbers"; and

WHEREAS, the City of Ketchum believes that these State of Idaho policies are negatively impacting Idaho's reputation, the City's stewardship values, the City's recreation and the *Wood River Wolf Project's efforts to continue to show that*

predators and livestock can co-exist;

NOW, THEREFORE, BE IT RESOLVED by the City Council for the City of Ketchum to request Governor Otter, the Idaho Fish and Game Commission, U.S. Wildlife Services and the Idaho Wolf Control Panel to recognize the importance of recreation, tourism and wildlife to our citizens and economy, not expand lethal control of wolves within Blaine County, reconsider its estimates of a viable wolf population, and to work cooperatively with the Wood River Wolf Project, and,

FURTHERMORE, the City Council for the City of Ketchum will transmit a copy of this resolution to the collaborators of the Wood River Wolf Project in order to acknowledge the success of non-lethal control measures, including, but not limited to, the Lava Lake Land and Livestock Company, Blaine County, Defenders of Wildlife, U.S. Forest Service; and,

FURTHERMORE, the City Council for the City of Ketchum will transmit this resolution to the Governor, Blaine County's State Legislative Delegation, the Idaho Fish and Game Commission, and U.S. Wildlife Services to request their support of the collaborative work of the Wood River Wolf Project and to *provide for the safety of our residents and backcountry recreation users by prohibiting trapping, snares and aerial shooting of wolves on public lands in our County.*

PASSED by the City Council and APPROVED by the Mayor this 15th Day September 2014.

Analysis

Feature 1: WHEREAS, the City of Ketchum values and believes that humans, livestock and predators, including wolves, can co-existent on public lands as demonstrated by the Wood River Wolf Project, a collaboration with Blaine County, Lava Lake Land and Livestock, Defenders of Wildlife, federal land managers, and wildlife experts. This effort, started in 2007, has proven how a suite of proactive non-lethal control measures has helped keep sheep and wolves alive while sharing the landscape. To date, less than 0.03 percent of more than 25,000 sheep grazed annually in the area have been killed by wolves. This is the lowest loss rate in high density wolf and sheep grazing range in Idaho proving that these methods can protect livestock, save ranchers' money, and reduce lethal actions against wolves.

Discursively, this finding of fact presents a stark contrast to the way the Idaho

legislature presents its findings. Specifically, I think 3 elements of this portion of the text

are worthy of discussion and contrast with the Idaho legislature's emergency declaration:

first, the concept of value advanced by the statement; second, the statement's use of evidence; third, its use of logic.

The concept of value is deployed in direct and indirect ways in this statement. Directly, the statement discusses a value system that accepts predator presence; it is thus more in tune with a balanced view of ecosystemic health (e.g., Leopold, 1949) than is the legislature's state of emergency. Phrasing such as "the City of Ketchum values and believes that humans, livestock and predators, including wolves, can co-existent [sic.]" show this system of values. This system of ethics or values is not the only way in which value is foregrounded in this statement, however. Like the legislature's, this statement evinces a focus on monetary value. That emphasis takes a distinctly different form here, though. Specifically, the city mentions that the nonlethal methods of wolf control employed by the Wood River Wolf Project can "save ranchers' money" while simultaneously reducing the number of wolves killed by human responses to wolf depredation of livestock. Moreover, the statement makes explicit the claim that wolves are "ecological assets." The city thus advances an encompassing view of values wherein value can be assessed in intellectual, ecological and economic terms. This trebling of value as a qualified and quantified element of the discussion regarding wolves is in contrast to the one-dimensional property/life/liberty formulation of the concept of value advanced by the Idaho legislature.

The concept of value is also folded into the statement's apparent presupposition that reasonableness and coalition-building are valuable aspects of public argumentation, such as this document. I identify this presupposition of the value of reasonableness in part in the tone of the document and in part in its focus on collaboration. Whereas the tone of

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the Idaho legislature's state of emergency declaration is nearly entirely negative and based on the concept of threat, this statement's tone is positive and based on the concept of benefit. The statement begins by identifying shared values and beliefs regarding coexistence and collaboration. The result is an emphasis on union, in contrast to the emphasis on division (particularly a division between federal and state power regimes) found in the Legislature's emergency declaration. In addition to its fundamentally positive valence, this statement's tone is reasonable. This is reflected in a focus on evidence and the use of basic logic, as I will discuss below, but more fundamentally on the breadth of perspective that feeds into the statement: the statement answers the panicked tone often adopted by the Idaho legislature and governor by offering reasoned reassurance of the possibility of successful coexistence between this beneficial carnivore, domestic livestock and people. This is achieved in part by a focus on coalition and collaboration. Such a focus has recently been the focus of scholarly investigations into the value of cross-community partnerships in solving seemingly intractable multiplestakeholder environmental problems, and its success has been recently noted (Callister, 2013). Ultimately, whereas the Idaho legislature adopts a black-and-white, us-versus them framework, performing the role of victim to federal overreach, the city of Ketchum focuses on solutions to the problem of wolf depredation that are available at any time without the interference of the federal government. The result is an enunciation whose clarity and reasonableness reflects the simplicity and reasonableness of the Wood River Wolf Project's surprisingly effective answer to wolf-livestock coexistence.

The Idaho legislature has found that wolves' "uncontrolled proliferation" presents a "clear and present danger to humans" (Idaho Legislature, 2011, p. 2). Neither this

finding nor any of the other findings in the declaration of a state of emergency cites any data on attacks of humans by wolves, which is implied on the basis of Idaho's claim that picnicking, berry picking and other recreational pursuits have been rendered unduly dangerous by the presence of wolves. This dearth of evidence may be because, as Bangs et al. (2005) note, "there is no documentation of a wild wolf attacking a person in the Northern Rocky Mountains" (p. 348). On a broader geographic scale, there are no documented cases of healthy wild wolves killing a human since European colonization (McNay, 2002). Yet the legislature's argument proceeds with the presupposition that wolves present a mortal threat to humans. In a similar vein of argumentative lack, the legislature presents no evidence regarding the wolf's role in the disruption of economic activity or the imperilment of public and private property. This may be because wolf presence often results in economic benefit rather than loss, as "thriving wolf watching tourism [...] pump[s] millions of dollars into counties surrounding [YNP] each year" (Dickson, 2014). The failure to cite evidence regarding the wolf's imperilment of private property may be that wolves largely live on public lands, as 63% of Idaho's area, and nearly all its suitable wolf habitat, consists of federally managed public lands (Idaho State University, 2015).

In stark contrast to the legislature's eschewing of evidence, the city of Ketchum compactly and efficiently relays numerical data regarding the nonlethal ways of controlling wolf depredation on livestock used by the Wood River Wolf Project. Specifically, the statement notes:

To date, less than 0.03 percent of more than 25,000 sheep grazed annually in the area have been killed by wolves. This is the lowest loss rate in high density wolf and sheep grazing range in Idaho proving that these methods can protect

livestock, save ranchers' money, and reduce lethal actions against wolves.

The statement thus augments a focus on value—both intellectual and economic with clear presentation of evidence that might appeal to audiences seeking clear quantification of the program's success. Delivering such information is an important feature of any argument that seeks to be compelling beyond mere emotional appeal (Aristotle, 1984).

Held against this statement, the legislature's emergency declaration seems just another iteration of the discursive agitprop long associated with debates on wolves. Put simply, the city of Ketchum focuses on solutions and collaboration in which wolves are taken into account as "ecological assets"; the state of Idaho focuses on the expression of state power, using the protection of private property as a shield for its assertion of power within its territory. Wolves are a purely symbolic figure in this version of the argument; they are hybridized with the notion of threat, personified dually by wolves and Washington.

The presence of basic logic is as notable here as is its lack in the Idaho legislature's emergency declaration. Logic is of course implied by the presentation of evidence to support a claim, as I have discussed, but once one deploys that evidence, one is expected to make a conclusion: a complete statement driven by logic entails the offering of a conclusion. Ketchum does just that when it uses the word "proving" to suggest that the low number of wolf depredations on livestock associated with the Wood River Wolf project indicates its success. This may seem a simple difference from the discursive features present in the legislature's statement, but it is one that marks the Ketchum statement as based in logic rather than unsubstantiated and fear-inducing claims regarding the compromising of public safety and private property by the "uncontrolled" presence of wolves. Both statements use the concept of control, but for Ketchum, control of wolves is accomplished by means other than killing; for the legislature, "control" is a synonym for killing. Both statements address a problem; only one offers complete, conclusive logic in advancing a solution, and only one offers nuance related to "control." Where the legislature offers absolutism (i.e., there are absolutely too many wolves, they are absolutely a threat and death is absolutely the only way to control them) and day-ofreckoning, fear-based tone, the City of Ketchum offers nuance and the possibility of coexistence. The legislature offers an illogic of fear; the City of Ketchum offers a logic of solutions.

Augmenting the city's logic from the perspective of argument is a cultural logic regarding the possession of lands and the maintenance of shared resources for the benefit of future occupants of that territory. First, note the difference in how land possession is figured in these statements: whereas the state legislature relies on claims to personal property rights to buttress its claims regarding infringement on those rights by the government-wolf hybrid, the city's statement is predicated on "the importance of being stewards of public lands." Second, note the difference in orientations to time, specifically the welfare of future generations of humans and wildlife: whereas the state legislature focuses on the immediate "clear and present" threat of wolf presence, the city notes the imperative to "conserve natural resources for future generations." This longer view of time and the natural resources—including wolves, for both their ecological and tourism value—that ultimately "sustain our economy" (Ketchum, p. 1) contrasts with the pathological state of panic that superficially invokes national values while lambasting the

national government (the legislature's declaration) because it is a reasoned statement of value that resonates on ecological, economic and intellectual scales. The enunciation on the part of the city is thus one of argumentative rigor combined with a *telos* that drives toward the acceptance and implementation of a proven solution to wolf-human conflict. It is, then, a strong response to bellicose and unreasoned statements such as the Idaho legislature's declaration of emergency, which is marked more by an alarmist performance of rhetorical victimhood than by any orientation to reason or solutions.

Ketchum's statement continues as follows:

these values of co-existence and beliefs are not shared by Idaho Governor Butch Otter and the Legislature which, in 2014, have widened their war on wolves with the creation of the Wolf Control Board to propose new programs and incentives for the killing of wolves, reducing the statewide population to a minimum number of 150, even though more than1400 wolves in Idaho since 2011 (Idaho Fish and Game Reports) have been killed through trapping, snaring, aerial shooting and expanded hunting seasons.

The 3 discursive concepts I would like to explore with respect to this portion of Idaho's resolution are *transitivity* and an attendant *functionalization* of rhetorical actors, along with *repetition for emphasis*. Of these, the primary feature is transitivity: the term involves a complex range of functional and grammatical linguistic operations, but at its core, the concept involves action. Essentially, transitivity is a way of naming who does what in discourse (Machin & Mayr, 2012). Predicates, then, are often where we can locate transitivity. In this passage, our predicates (for current purposes, verbs, auxiliaries, and relevant objects) are, in order, 1) "are not shared," 2) have widened their war," 3) "propose new programs," 4) "reducing the statewide population," and 5) "have been killed."

Ketchum's use of the phrase "are not shared" is significant in terms of predicate.

This verb displaces Governor Otter and the legislature as grammatical subjects and thus, I argue, as discursive rhetorical actors. This functionalization, or reduction of an actor to what she or he does rather than who she or he is (Machin & Mayr, 2007), is interesting in light of the grammatical subject: "these values." The values in question are the values of "being good stewards" and conserving natural resources "for future generations," along with the valuing of coexisting land uses (e.g., wolf watching/tracking existing alongside livestock grazing). This grammatical formulation is interesting for its functional effect of alienating Otter and the legislature from any intimate association-positive or negativewith the values embraced and espoused by the City of Ketchum. The alternative formulation of "Otter and the legislature do not share" would retain the same grammatical meaning, but would place Otter and the legislature in the subject position regarding the values Ketchum and/or the writers of this resolution hold dear. The existing formulation removes the inherent association of Otter and the legislature with those values espoused by the city in a forceful way by limiting their grammatical (and with it, I argue, functional) agency with respect to the values Ketchum espouses. This may be seen as an implicit assertion that Otter and the legislature have no trade whatever with such values, a claim borne out in essence by Otter's 2010 missive to Salazar and the legislature's characterization of wolves, as this analysis has illuminated. Finally, the somewhat stilted phrasing "Otter and the legislature which, in 2014, have widened their war" is noteworthy for its use of the relative pronoun "which" to relate to either Otter than the legislature or the legislature only (this is why I call this phrasing "stilted": which of these we should assume is unclear) exerts a final depersonalizing effect that removes agency from the governor and the legislature regarding the values espoused by the city.

When Ketchum's statement uses the phrase "have widened their war," the city directly attributes action to the legislature and governor. Whereas the governor and legislature do not occupy a subject position with respect to values of coexistence and conservation, then, they decidedly do so in the case of warring on wolves. This would tend to indicate an accusatory tone toward these actors on the part of the city, a predictable grammatical feature given the rhetorical upshot of the resolution: to condemn the state's practices with regard to wolves and to request that the state not engage in lethal control in Blaine County, of which Ketchum is the seat. Beyond this accusatory aspect, the use of "war" is important.

The phrase "war on wolves" is commonly used among wolf advocates, and while the term "war" is perhaps uniquely rhetorically active, calling up images of suffering and death on the part of humans, it may be an apt choice in this case. In keeping with Ketchum's evidentiary emphasis in the resolution, the city cites the fact that 1400 wolves *have been killed* (predicate 3) by various human causes since the 2011 congressional delisting. That number is high both as a raw expression and as a proportion of the number of wolves in the state, and it is included here perhaps for pathetic effect as well as to function as direct evidence of the "war." Yet the use of the term "war" to describe a human action against a nonhuman species is a reasonable extension of the ethics/values of coexistence and shared use that form the resolution's basis. If we value land and its denizens as we do humans, or on a similar scale, then to destroy that land or its endemic wildlife (and the wolf is endemic to Idaho) is to make war on it, just as to destroy a neighboring village and its inhabitants is to make war. Beyond the adoption of the term "war," which is ultimately supported by the letter's combination of values, evidence and conclusive logic, the verb "has widened" indicates a ramping-up of a program of killing, and may call up images of a desperate regime attempting to wield its power while it can, adopting a scorched earth policy as it backs away from an advancing power. Predicate 4, "reducing the statewide population to a minimum," supports this notion of overkill: even though 1400 wolves have been killed thus far, the state seeks to further limit their numbers, citing wolves as an existential threat, even though the Ketchum resolution makes clear the Wood River Wolf Project has resulted in very few livestock casualties and no human-caused wolf mortalities.

The predicate "have been killed" emphasizes the primary effect of humans on wolves in Idaho from 2011 to the writing of this statement in 2014: death. Hard on the heels of this unvarnished expression is a catalogue (use of repetition) of the various means by which humans have killed wolves: "trapping, snaring, aerial shooting and expanded hunting seasons." This has the grammatical effect of specificity, and we thus know how the killing is carried out. Strictly speaking, however, this level of specificity is unnecessary, as the effect of killing is the same irrespective of its means. These means of death are functional cognates of one another, as each means produces the same end. The enunciative function of this list may be less that of pure specificity and more that of emphasis of the expansion and continuation of killing in the "war." Wars are fought using multiple means and on multiple fronts: from airplanes to IEDs and from polar regions to equatorial ones: a successful martial campaign is diffuse in its means. This statement on the part of Ketchum, with its use of repetition cloaked in the guise of enumerative specificity, seems to emphasize the efficient and multipronged nature of the state's "war" on this "ecological asset." Readers of the document may be surprised, even shocked, by the many ways in which lethal control of wolves is exerted by the state.

Ketchum's statement continues by saying the city will:

provide for the safety of our residents and backcountry recreation users by prohibiting trapping, snares and aerial shooting of wolves on public lands in our County.

This feature is from the portion of the resolution that recommends particular actions. As we see, the use of repetition remains in effect here, though its use may be more purely functional and less rhetorical, as it seeks to identify particular activities the city would have the state cease in its county. We see a continued emphasis on public lands, in continued contrast to the state's posturing regarding the threats wolves pose to private property. Ultimately, the most important discursive feature to note here is perhaps the configuration of the concept of safety. In particular, whereas the state legislature solely characterizes wolves as a threat to the safety of humans, this statement characterizes the lethal control of wolves as a threat to human safety. So while the state legislature recognizes threat solely in the wolf, the city recognizes threat solely in the practices related to nullifying the very threat the state identifies: the wolf. The contrast is remarkable: the statements serve as poles by which we might orient the entire debate on wolves. Ultimately, though, only the city's statement holds up to analysis regarding its basis in evidence, its use of logic, and its valuation of the beyond-human world.

Conclusion

In this chapter, I have attempted to answer the research questions of this study by specifically examining discursive characterizations of the gray wolf, paying special attention to those that deal with the threats and benefits presented by wolves. Due to the

study's commitment to fine-grained analysis of details present in particular utterances emerging from the discursive and material ecosystems of particular contexts, the data set I have presented is purposefully constrained in scope. Nevertheless, the data I have analyzed present various assessments of the threats and benefits presented by wolves that may in turn represent a general set of orientations toward the wolf, both generally negative and generally positive. While not comprehensive, then, conclusions based on the analysis I have presented are warranted based on the depth of this analysis and on the generally representative nature of the artifacts analyzed. Moreover, the state in which the two primary artifacts analyzed here (Idaho) is one of the two states whose representatives placed the delisting rider on the 2011 federal budget bill. What happens with respect to wolves in Idaho, then, is not only influential in terms of wolf management, but is also readable as a barometer of antiwolf political posturing more generally. In addition, my conclusions, which do not claim the artifacts' causality with respect to later events or their absolute representation of all positions on wolves, comport with a sense of rhetoric's nature as influential, not necessarily causal (McKerrow, 1989). I offer, then, a series of conclusions. I will present them in brief here; I expand on them, particularly the implications of the third conclusion, in the study's final chapter. The conclusions I advance based on this chapter's analysis are threefold.

First, scientific assessments of wolf threat and benefit indicate wolf presence is more beneficial than threatening. By "scientific," I do not mean to imply that these scientific investigations are entirely accurate or unfailingly objective; studies are flawed at times and science is always a social practice (Latour, 1987; Pickering, 1992; Phillips, 2012). Nevertheless, in times of crisis with respect to ecological catastrophes such as

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climate change and the loss of biodiversity, claims to scientific rigor and credibility are often warranted, even in studies such as this one that adopt a constructionist orientation toward the power of rhetorical discourse (Ceccarelli, 2011). Ultimately, the ecological benefits of wolf presence are significant, as the species is a crucial player in a "trophic cascade" (Estes et al., 2011) whereby energy is distributed across food webs, maintaining biodiversity and potentially buffering the negative effects of climate change on other species such as grizzly bears (Ripple et al, 2014). While scientific investigations do not generally discuss in a direct fashion whether the benefits of wolf presence necessarily outweigh the risks, they have often found that wolves' overall effect on livestock losses and their negative effects on ungulate herds are much less significant than commonly represented. For example, Bangs et al. (2005) concluded, "wolf depredation is a rare cause of livestock mortality, but it is inordinately controversial" (p. 350). In addition, wolves kill dogs "infrequently" (Bangs et al., 2005, p. 350) and, as we have seen, the threat wolves present to humans is vanishingly small, even in comparison to other large carnivores such as bears and lions and even domestic dogs, which "kill a dozen and injure hundreds of people in North America each year" (Bangs et al., 2005, p. 348).

Second, competing official characterizations of wolf threat/benefit are markedly different in overall approach—particularly the stated values on which they are based and in argumentative rigor. In the sample studied here, for example, anti-wolf statements focus on the values of private property, whereas pro-wolf statements cite the value of wolves as "ecological assets" (Ketchum, 2014) and the value of public lands and recreation. With respect to argumentative rigor, negative official characterizations of wolves that focus on the threat they present to humans seem corollary to folk characterizations that draw on myth and lore more than on evidence. In contrast, the positive characterization I present, which resonates with much of the scientific evidence regarding wolves' role in "trophic cascades," draws on evidence to the exclusion of myth and lore.

Nevertheless, the rhetorical tactics used in the positive evaluation of wolf effects and bemoaning of the "war on wolves" engages also in rhetorical posturing, including grammatical functionalization of rhetorical actors whose attitudes on wolves are more aggressive. Beyond the relatively innocuous level of functionalization seen in Ketchum's resolution—which is, as I have argued, ultimately an effective argument—prowolf groups often characterize the wolf in ways that involve the wolf in practices of capital exchange, as does the Idaho legislature's emergency declaration. Whereas the Idaho legislature focuses on threats to property, prowolf groups often use the wolf as a way to relieve supporters of a portion of their property, namely their money. In one such statement, the group Living With Wolves disseminated an image through social media in December of 2014 that solicited contributions to their efforts to "dispel the myths and misinformation that lead to the unnecessary and senseless killing of wolves" (Living With Wolves, 2014). The image showed two wolves in repose, paws forward, gazing at one another; the text read, "wolves have families too. This holiday season, give wolves a voice, your voice" (Living With Wolves, 2014). The use of the notion of voice is interesting here, not just because "voice" is central to the notion of advocacy, but also because the giving of voice is presupposed to be predicated on giving money. In a way, this statement carries out the legacy of the U.S. Supreme Court Decision Citizens United (2010), which held in part that the giving of money amounts to protected political speech.

The Living With Wolves advertisement might perhaps be to the Ketchum declaration as the Washington Residents Against Wolves billboard is to the Idaho legislature's emergency declaration: a vernacular statement that aligns with an official statement with a similar characterization of wolves. Yet the vital differences between Ketchum's resolution and the Idaho legislature's state of emergency declaration undoes this easy comparison: these differences include the use of logic, the use of evidence, and the foundation on a system of values that comports with ecological science. Moreover, and more importantly, the Ketchum resolution cites the success of a program designed to allow coexistence between wolves and livestock/people. Therefore, in the microcosm of official characterizations I have studied, characterizations of the wolf as a beneficial ecological presence and a manageable threat to livestock are common to serious scientific inquiry and to official statements that embrace rather than ignore these facts. In contrast, statements like those of the Idaho legislature and WARAW trade primarily in myth and lore, citing threat while failing to quantify it and identifying a problem without working toward a viable solution.

Third, these variations in characterization of wolf threat/benefit shed light on political disputes involving territories and the borders that define them. Wolves are managed as individual bodies and as populations, often with lethal results. Wolves are disciplined as a marker of foreignness and threat and laminated metonymically onto narratives of federal overreach. The Idaho legislature's and WARAW's statements in particular show how the wolf is implicated in broader discussions of territory and power. These disciplinary characterizations focus on territory (Washington and Idaho, bordered political entities that, in these cases, resent the incursion of the Washington-wolf) and the assertion of power. The manner in which wolf characterization functions rhetorically to demarcate political borders and territories, along with the implications of this rhetorical functioning with respect to ideology, power, and social/rhetorical theory, is the primary focus of the next chapter. In it, I hope to map out the study's implications in terms of human-nature relations, wildlife management and rhetorical theory.

CHAPTER 5

CONCLUSIONS AND IMPLICATIONS

The primary goals of this final chapter are twofold: to review my primary conclusions based on the analysis of data and to consider the implications of those conclusions. In addition, I briefly review the study's limitations and point to future directions in research on this issue. I develop my conclusions in the dual contexts of environmental communication practice and theory. With respect to practice, I offer conclusions based on significant study of the issue of wolf reintroduction generally and the data I have presented and analyzed specifically. Although I offer conclusions on the level of practice, the primary contribution of this study in terms of conclusions and implications lies in the terrain of environmental communication theory. In particular, the conclusions and implications advanced resonate with rhetorical theory in the environmental context.

Summary of Study

This study has focused on how discourse characterizes wolves biologically and managerially by establishing *what wolves are, what they do* and *what threats and benefits they present*. These categories are not mutually exclusive, but they allowed for clarity in the analysis. The analysis has been guided by 3 research questions:

1) How are gray wolves characterized in discourse?

- 2) What might these characterizations imply about the dynamics of sociopolitical power struggles?
- 3) How might these implications affect theoretical and practical conversations about human-nature relations and wildlife management?

Chapter 2 Summary

In this chapter, I examined characterizations of what wolves are on the levels of taxonomy and semantic/grammatical modification (generally attributive/adjectival). With respect to taxonomy, I found that wolf taxonomy is anything but stable, even if administrative discourse has flattened the species' various distinguishing subspecies into a single species. While early documents related to wolf recovery used the subspecies designation for the Rocky Mountain gray wolf, later documents and scientific discussion dropped the subspecies designation. I did not make claims regarding the scientific basis for this sloughing-off of subspecies designation, noting the ubiquity of this phenomenon in the inexact science of taxonomy (Mech, 1970), but I argued that taxonomy is mobilized in rhetorically divergent ways. This rhetorical divergence is even present in contemporary documents emanating from agencies that actively guide management decisions: 2 years after FWS officially reclassified the gray wolf at the species level, for example, the primary document detailing the agency's recovery plan used the subspecies designation throughout. This taxonomic instability may position the gray wolf in a liminal space, abetting official and vernacular (re)classifications that question the species' right to be in the area in which it was reintroduced. I further found that the concept of an "experimental" population, particularly when coupled with "nonessential," circumscribes the species' presence as contingent and revocable from the beginning.

With respect to modification, I found that characterizing the wolf as "Canadian," reintroduced, nonessential experimental, and a predator that exists outside the category of wildlife generally contribute to the wolf's characterization as an "other" and an invasive, foreign presence. Such characterizations are mobilized often by political leaders in the process of asserting state's rights and enforcing territorial sovereignty, or control over a territory. I used an influential letter from Idaho Governor C.L. "Butch" Otter as an illustration of this trend to enable a fine-grained analysis of the phenomena of othering and marking as invasive and foreign. I supplemented this with analysis of images of wolves in documents emanating from political groups and wildlife management agencies. This circumscription is often rhetorically compounded by discourse that uses the wolf as a marker of states' rights and a metonym for federal government overreach. This rhetorical usage of the wolf as a symbol of federal overreach positively correlates with depictions of the wolf as a threatening other (a key index of which is color) whose presence should be militated against. In such characterizations, the wolf's very rhetorical mobility as a symbol of otherness may render the wolf more symbol than material presence. The material manifestation of the wolf is ultimately constrained by its very discursive power.

Chapter 3 Summary

In Chapter 3, I analyzed the rhetoric of discursive characterizations of what wolves do, focusing on the animal's formation of *populations* and its *movement* (or dispersal) across territories. I analyzed administrative assessments of population viability across time, noting the instability of notions of population viability and the continued questioning of the 10/100 standard, which in spite of resistance on the part of many concerned scientists, continues to be the standard by which population viability is measured. I analyzed the application of this notion of viability in influential court decisions, which often questioned the 10/100 standard. In particular, the concept of a "buffer population," which I argued functions as a floating signifier, has been deployed to allow agencies to functionally retain the 10/100 standard while claiming the maintenance of a population in excess of this minimum. To analyze dispersal in a more detailed way, I conducted a fine-grained, contextualized discourse analysis of Wyoming's wolf policy during the window of delisting from 2012 to 2014. Based on this analysis, I concluded that the continued application of a modest standard for population viability suppresses sound science (i.e., the consensus of opinion emanating from wolf biologists).

Chapter 4 Summary

In this chapter, I analyzed characterizations of wolves that foreground the threats and/or benefits presented by the species. Specifically, I looked at a declaration of a state of emergency in the state of Idaho based on the threat presented by wolves. I complemented this analysis by examining visual characterizations of wolves as a threat and with an evidence-driven statement in support of coexistence with wolves fielded by the Idaho city of Ketchum. Taken together, these communications present a microcosm of broader conversations about how wolves affect humans, livestock and wild prey.

My analysis revealed 3 primary discursive trends. First, scientific (a modifier I qualify by invoking literature on the sociality of science) assessments of wolf presence indicate wolves are more ecologically beneficial than threatening. To reach this conclusion, I surveyed literature in conservation biology and literature on wolf depredation of livestock, their threat to humans, and their perceived competition with

human hunters. Second, the competing official characterizations of wolf threat/benefit I selected for analysis differ in terms of the values on which they are based—both presupposed and explicit—and in terms of argumentative rigor. Antiwolf statements focus on the values of private property, whereas prowolf statements cite the value of wolves as "ecological assets" (Ketchum, 2014) and the value of public lands and recreation. With respect to argumentative rigor, negative official characterizations of wolves that focus on the threat they present to humans seem corollary to folk characterizations that draw on myth and lore more than on evidence. In contrast, the positive characterization I present, which resonates with much of the scientific evidence regarding wolves' role in "trophic cascades," draws on evidence to the exclusion of myth and lore.

The chapter's third primary conclusion synthesizes these findings and suggests that these variations in characterizations shed light on political disputes and the borders that demarcate them. In particular, the Idaho legislature's declaration of a state of emergency and Washington Residents Against Wolves' visual characterizations of wolves show how the wolf's discursive disciplining as a marker of foreignness and threat implicates the species in broader discussions of territory and power. This implication into broader discourse on rights involves ideological positioning and the claiming and often exercising of political power. The city of Ketchum's defiance of state-level Idaho government's generally aggressive wolf control policies, for example, resonates with an ideology that presupposes the value of coexistence, shared public lands and recreation. Statements in the rhetorical vein of the Idaho legislature, in contrast, promote an ideology of private property and a presupposition that federal power is dangerous and out of control. My analysis has revealed that, at least in this bounded case study, statements about federal overreach correlate with a lack of evidentiary basis for the threat presented by the wolf and a lack of acknowledgement that most wolves are present on public land, not private. The argumentative basis for disputing wolf presence in Idaho as a marker of federal overreach and or foreignness is thus spurious in comparison with evidence-driven arguments regarding the potential of wolf-livestock (and general wolf-human) coexistence fielded by the city of Ketchum. This implies that these competing official characterizations are interpellating two different wolves into their arguments: whereas the city of Ketchum is attempting to solve the problem of wolf depredation on livestock in a material and biological way, the state legislature is dealing with the symbolic wolf of myth and lore.

Interpretation

The primary purpose of this section is to build the study's contribution to rhetorical theory in the context of environmental communication. Since the study has considered the particulars of gray wolf management and biology at some length, however, I begin with a brief discussion of the implications of this study for environmental communication practice. While the divide between practice and theory is in many ways false—that is, every practice is in some ways an enactment of a theory, and practice is the raw material for theory formation—I nevertheless separate them for accessibility here.

Implications for Practice

In the areas of the American West focused on in this study, and indeed worldwide (Lopez, 1978), the wolf has long been the subject of strenuous political contention just as it has been a creature of lore and myth. In the context of political conversations, the ESA's primary guidance regarding listing and delisting species, namely that such decisions should be based on "the best available scientific and commercial data available" (ESA, 1973, p. 244) is often not considered fully. The United States Congress's one-paragraph 2011 budget bill rider that delisted wolves in Idaho and Montana, for example, cited neither the ESA nor any scientific data. This political decision making trend has continued: Congress has been said to be considering action to delist Canis lupus across its range in the United States (Neary, 2014). In response to this possible action, 52 wildlife scientists (43 Ph.D. researchers,; 2 research veterinarians, 7 M.S. biologists) recently sent an open letter to Congress expressing opposition to such an action. Just as my analysis has indicated, in this case biologists balk at aggressive state management of wolves "designed to reduce their [wolves'] populations to arbitrary goals, which were based on politics but not on the best available science" (Open Letter, 2015). As my analysis has shown, biologists have questioned the numerical basis of population viability nearly constantly since the incorporation of the 10/100 standard into wolf reintroduction policy. The letter further accuses FWS of using "distorted interpretations" of the ESA" that are "antithetical to what Congress intended when it enacted the ESA" (Open letter, 2015). On these points, the letter cites peer-reviewed literature in support.

In its use of evidence, its embrace of nonlethal wolf control methods, and in its appeals to the public good of recreational land use, the open letter is similar to Ketchum's

resolution asking the state of Idaho to cease lethal control of wolves in Blaine County, of which Ketchum is the seat. Recent communications such as these are reasoned appeals based on adherence to the ESA as a statute and the problems of human/wolf coexistence. As my analysis has shown, official communications from the level of state government tend to contrast with this reasoned approach, presupposing wolves as a threat to livestock to which the only solution is lethal control and, with even less qualification, presupposing the presence of wolves as a direct threat to human life. While this binary classification of scientific and political assessments of the wolf may seem pat, it remains the case that these two modes of discourse seem to be at loggerheads. Further, analyzed from the perspective of argument, the claims I have analyzed that characterize wolves as an important ecological presence manageable through nonlethal means are more fully substantiated in empirical evidence than are claims to the contrary.

This division in the ways of presenting arguments about wolves is reflected in attitudes about wolves and, more broadly, in attitudes about the management of territory and the significance of the legal lines (borders), bright or otherwise, between states and federal government and between the practices of science and the cultural practices of myth and lore. These divisions run deep, penetrating to epistemological worldviews about what and whom constitutes knowledge and, in turn, to the ethical and even ontological horizons by which these feuding parties reckon their relationship with the world. Since these differences are so profound, it is very likely the wolf will continue to be a political lightning rod symbolically even while it continues to exert a powerful influence materially on the landscapes it inhabits. I contend that scientific evaluations of the wolf's prominent role are, to put it simply, more accurate than assessments of wolves that place it outside the category of wildlife, mark it as an invading, foreign other and presuppose that wolves present a threat to human life. While this is not an inclusive list of either the ways wolves are characterized negatively as a threatening other or the ways it is assessed as a biological presence within ecosystems, this bifurcation—wolf as a threat to be eliminated or wolf as positive ecological influence—is often precisely this blackand-white.

Given the consistently irreconcilable nature of positive versus negative characterizations of wolves, I think those who advocate for sustained wolf presence, such as the city of Ketchum or the concerned scientists who recently wrote to Congress, should continue to claim scientific authority without apology and should continue to focus on evidence regarding the possibility and promise of coexistence between wild wolves, livestock and humans. These tactics will avoid the problem of diluting the credibility of empirical findings through concession. To soften this hard line, such parties should seek common ground where applicable, as has been the case with the Wood River Project, where participant ranchers have benefited from reduced livestock loss to all predators as a result of adopting nonlethal means to control wolf depredation.

Finding common ground may be difficult in current political contexts; therefore, innovative strategies for identifying shared values and goals in participatory formats with multiple stakeholders should be implemented if possible (e.g., Callister, 2013). Specifically, stakeholders such as state legislatures and other leaders should carefully consider how their activities affect the actions of state wildlife management agencies. Too often, political actors appear to characterize the animal as a mnemonic for federal overreach or a credible threat to human life (in spite of evidence to the contrary) rather than taking into account biological and numerical evidence regarding the wolf's population viability, its effects on wild prey and livestock, and its positive influence on biodiversity. This lack of understanding on the part of political actors feeds into state management decisions on such matters as hunting, and wildlife managers are beholden to state law in spite of its lack of basis in scientific investigation. Wyoming's current predicament regarding its inability to manage wolves within its territory is in part the outcome of state statute that mandates control of wolves down to minimum recovery numbers (*Defenders of Wildlife v. Jewell*, 2014).

Implications for Theory

Since their reintroduction in 1995, gray wolves' presence in the Rocky Mountain region has been managed and manipulated by humans, from the release of 14 wolves into Yellowstone National Park in 1995 to the "human-caused mortality" of 900 wolves in 2013 in the Rocky Mountain region (FWS et al., 2013, p. i). This manipulation holds out the promise of recovery while constraining that possibility by encasing the species within discourse, whether through laminating the wolf onto a narrative of federal overreach, defining the wolf in so many different ways as to deny it coherence as an ecological actor, or by identifying it as nonessential, experimental and reintroduced.

The parallels between this case and the simultaneous tacit citizenship and permanent exile experienced by transnational migrants, particularly South-North border crossers in the United States, are significant. Both cases speak to the way dominant hierarchies of value impose physical and discursive limits upon mobile bodies motivated to move across administratively established borders by powerful exigencies of need (hunger, access to family, and the like). Wolves have long occupied the pages of children's storybooks, and their continued presence in areas in which that presence is sanctioned, such as within YNP, seems almost as assured as their continued relevance in folklore. Yet beyond the borders of the park, their future is considerably less promising. Both advocates of wolves and their detractors will likely continue to struggle over the managerial particulars of wolves; both will invoke science to support their position while simultaneously drawing from the vast storehouse of cultural configurations of the wolf. Both culturally and scientifically, the gray wolf is characterized and managed in such a way as to dramatically circumscribe its "trophic cascade" role through low numbers. The way wolves are named and characterized, particularly by special interest groups such as BGF and politicians, ensures its continued ambivalence both in terms of definitional clarity and in terms of its socio-ecological role. This ambivalence takes the form of a hybridity, something that keeps the wolf in a "liminal space, in-between the designations of identity" (Bhabha, 1994, p. 4).

Revisiting the Case for Hybridity

Romulus and Remus, the founders of Rome, were said to have been suckled by a wolf. Thoreau (2002) suggested this was

Not a meaningless fable. The founders of every state which has risen to eminence have drawn their nourishment and vigor from a similar wild source. It was because the children of the Empire were not suckled by the wolf that they were conquered and displaced by the children of the northern forests who were (p. 192).

Thoreau's high estimation of the wolf is paradoxically parallel to other, more negative cultural characterizations of the wolf because it figures the wolf as a symbol, folding into the utterance presuppositions regarding what the wolf is and does. Thoreau's celebration of wildness is that of the wildness in the human, not the animal other: the wolf is a purely symbolic vehicle for the implantation of that wildness, a wild handmaiden. As Agamben (1998) has noted, the wolf is implicated in the very idea of actions that break social norms: the wolf is a banned subject folded into the character of the central subject of the political order: the sovereign.

Thoreau's seating of the wolf at the very base of modern civilization writes the animal other into human history in the service of that history, not in the service of the wolf's biological being or right to exist. This rhetorical encapsulation of the wolf as a wild other, a symbol of—or, indeed, metonym for—foreignness, otherness, wildness, savageness, and evil, continues today. The encapsulation of the wolf within symbolicity—as I have argued, a product of its very rhetorical mobility as a symbol of many things, both good and bad-provides the springboard for the theoretical statement of this study, which relates to a paradoxical and simultaneous joinder and separateness of the human with the wolf. The wolf is written into the human social experience as a keystone other, a bandit. Yet the wolf is also identical to the human: while the wolf exists as a primary other by which we mark our separateness from its wildness and savagery, it is simultaneously incorporated—in the etymological sense of joined bodies— into the human social body. As Agamben (1998) notes, the Germanic bandit is a wolf-man (wargus), which in turn becomes the Latin garulphus and finally the French loup garou or werewolf. The concept of the wolf -human as the banned other who can be killed with impunity resonates with the Roman juridical doctrine of *homo sacer*, or a "bare life" (Agamben, 1998, p. 71) whom the sovereign has banished and who can be killed by anyone at any time. Culturally and even legally, then, the wolf is an object of persecution

and a *keystone other* that is paradoxically merged with the human. Discursively, it may be that the wolf is always already hybridized with the human. This may be the source of our difficulty with this species as a symbol and, ultimately, as a material presence in ecosystems. I use this concept of hybridity as a denominator for this study's theoretical contributions, as its aptness in the case of wolves and humans is noteworthy.

As I noted in the introductory chapter, hybridity as a concept has been fielded in multiple disciplinary and scholarly contexts. In particular, I am concerned with how this study interfaces with how the concept has been developed in science studies and in postcolonial/anticolonial literatures.

Hybridity and Reintroduction

Latour (1993) suggested modernity arises from the conjoining of things, objects, beasts and humans (p. 13). Yet modernity's task is the constant reification of false divides between these various actors. Latour's work concerns the proliferation of nature-culture hybrids that accompany the denial of this hybridity: the more we fail to address hybridity, the more it proliferates. Responding to this lack of social awareness, Latour (1993) suggested a cultural slow-down wherein we recognize hybrids and extend them agency. On the face of it, wolf reintroduction looks like such an extension. As I have suggested, we are hybridized with the wolf through the very construction of the political order, from the notion of the sovereign to the story of Rome's founding and perhaps even to our intimate involvement with the wolf's domesticated genetic twin, the dog. This hybridization was unacknowledged until the surge of ecological thought in the 20th century (e.g., Leopold, 1949) showed the way in which human lives depend on the lives

of wild others. As I have argued, perhaps no wild other is as implicated in human culture as is the wolf. This intimate association turned our attention to a particular hybrid, which humans hunted to extirpation in the American West. Then, humans reintroduced the wolf to the range from which it was extirpated in an expression of understanding of systemsbased ecological and even ethical principles regarding the need for this predator. This action seems like the kind of "enrollment" in a network of "actants" (Latour, 2005) that enacts an understanding that things, objects, beasts and people all act within connected networks.

Yet as I have shown, this extension of the right to dwell in and affect an ecological network is discursively marked as contingent and revocable from the beginning. This is where the brief kinship-like hybridity that perhaps engendered reintroduction with the wolf ends and the pathology of its hybridization by and within discourse begins. On multiple discursive levels, from taxonomy, to status as a predator/trophy game/protected animal, to its characterization as foreign, reintroduced, and even as a wolf-coyote hybrid, the wolf is subjected to discursive instability that ultimately denies it ecological purchase in a connected bioregion. Instead, the species is fragmented, pathologically hybridized into a series of both/and/neither designations that consign it to liminality and may ultimately fix its discursive meaning as a political tool rather than a powerful predator. The result could be the pathology of the ecosystems that need it.

Hybridity, State Power and the Other

Wolves have been bordered and disciplined, then, by the very discourse that facilitated their reintroduction. While the wolf's recovery has had lasting positive effects on ecosystems, its discipline by governmental power has been both the enabler and limiter of this process. This pastiche of colluding and conflicting discursive characterizations of the gray wolf is analogous to the myriad ways in which immigration is tacitly allowed, militated against, discursively constructed and materially enacted (Cisneros, 2008; Chang, 1997; Demo, 2005). Transnational migrants cannot be citizens, goes the logic of U.S. public discourse, any more than an animal can be a human (Santa Ana, 2002, p. 273). I have shown in this analysis how the wolf is discursively characterized as a foreign other, a border-crosser with no right to remain. To complement the analysis I have offered regarding foreignness, I will consider the way in which the wolf has been characterized as a "migrant."

Gray wolves are not a migratory species in the strict sense, as they do not "perform cyclical movements between two distinct geographical areas, one of which is usually the area in which they breed" (Klemm, 1994, p. 67). Yet in its 1994 Final Environmental Impact Statement regarding the reintroduction of gray wolves to Yellowstone National Park and Idaho, FWS identifies a wolf shot in the Teton Wilderness as "a recent migrant from northwestern Montana." (FWS, 1994, p. 6-91 cited in Schullery, 2003, p.110). More recently, the state of Wyoming's 2012 addendum to its wolf management plan, which catalyzed the FWS decision to delist the species in that state, uses "migrant" to characterize dispersing wolves in five instances. It does not cite literature in any instance (WGFD, 2012). The term has been used in conservation biology (Wang, 2004) and, coupled with the modifier "effective," identifies successful genetic exchange across a metapopulation through breeding.

Even if the term migrant is used in biology to describe genetic health, its social resonance, particularly when applied to an ideographic lighting rod like the gray wolf, is significant to this analysis. In the context of this low valuation of wolves, usage of the word "migrant" may connotatively extend past describing wolf dispersal. In the United States, the term "migrant" is often used to mark, manage, alienate and sanction violence against "illegal aliens" (Ngai, 2003). Migrant workers, particularly those who cross the southern border of the United States, are tacitly allowed to work in the U.S. but remain officially unwelcome; they are politically invisible; they are subject to deprivation, starvation and violence during grueling border crossings; they are subject to unconstitutional search and seizure and deportation. Their social position as essential to the economic machinery is contrasted with their legal status as criminal outsiders. The gray wolf's case may provide a beyond-human parallel: essential to the machinery of ecosystems, yet officially designated nonessential; endemic, yet invasive; native, yet introduced; nonmigratory, yet a migrant. The relationship is one of discipline and control of a politicized subject on which economies/ecologies depend. Gray wolves, like transnational migrants, are simultaneously welcome and unwelcome; gray wolves, like transnational migrants, put borders into question through migratory actions motivated by a powerful exigency: the need to survive. Gray wolves, like transnational migrants, are subject to a seemingly endless litany of both/and characterizations that deny stability and reify pathological social relations: they are both material and symbolic, both nonessential and essential, both invasive and endemic, both revered and reviled, both wanted and

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unwanted, both invisible and visible.

The Rhetorical Function of Wolf Characterization

The story of wolves and humans is a story about territory and conflict between two species with a long and intimate relationship with one another. It is the story of two adaptable, mobile and territorial species clashing. Power is at the center of this story: the power of humans to discipline the wolf through lethal control—always a discursive and rhetorical action—and rout it from its territory; the power of the wolf to recolonize (a term used often in the ecological literature) areas from which it had been extirpated. Aside from direct conflict for prey animals and conflicts related to human husbandry of livestock, perhaps the most significant conceptual element of this conflict is that humans and wolves enact territoriality differently: whereas humans write borders, wolves live them. Humans adapt to and occupy nearly every terrain on planet earth—and affect every molecule of it-regardless of the suitability of the habitat. With no tools but teeth, wolves' enactment of territoriality unfolds along the ecological lines of habitat: wolves' lived borders are bioregions transected and fragmented by human political borders. Ultimately, the interpellation of the wolf into political discourse renders the animal a tool for establishing territory. The wolf is taken up into discourse as a primary marker of what power is: one political entity expresses power by re-inserting the wolf into the ecosystem, recognizing our hybrid interdependence with wild predators; another series of political entities pushes back, characterizing the wolf with a competing series of both/and/not/is designation, rendering its ecological foothold tenuous. The effect of this encasing in discourse is pathology to the ecosystems that require wolf presence as a top-down force.

The story is not so simple, though: hope remains for wolf-human coexistence, as the city of Ketchum and the Wood River Project show. These practical actions operate whether implicitly or no—from an ethics that incorporates the wolf into a shared lifeworld wherein predators function as a check on prey populations and exert a broad and generally positive effect. The pathology I identify, then, is not absolute. It is, however, a political force whose territorial urges may continue to pathologize the wolfhuman relationship.

Possible Directions for Future Research

My purpose has been to analyze rhetorics of territory and borders as they pertain to the gray wolf's reintroduction, addressing human-nature relations, extending earlier research on wolf communication, and how borders discipline mobile subjects. I have focused in large part on administrative discourse emanating from dominant discourses of Western society such as wildlife policy and law. Since the research question asked "how are wolves characterized in discourse," and since my selection of discourse was necessarily also a suppression, a notable gap arises. Specifically, further research should consider how discourse from nondominant cultures characterizes the wolf. This has been done to excellent effect by Lopez (1978), Clarke (1999) and Salvador and Clarke (2011). Yet further investigation and comparison of discursive configurations of this emblematic species are warranted, both in terms of management policy and in terms of public attitudes. In addition, the tremendous explosion in social media activity around wildlife advocacy and land policies in general demands scholarly investigation of that area. Specifically, such studies should incorporate large corpora and generate substantial data to deepen the pool for analysis and conclusions regarding our relationship with animals.

These studies, however, would do well to retain an interpretive aspect, as the functioning of rhetoric is not exclusively quantifiable. Finally, I think further qualitative research, particularly with those opposed to wolf presence such as ranchers, hunters and the like, should be undertaken. Taken in sum, a body of research with this depth and breadth would complement this work and increase our scope of understanding how we communicate with and about the animate world.

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