

RESEARCH ARTICLE

Killing for the common good? The (bio)politics of wolf management in Washington State

Robert M. Anderson^{1,*}

Washington State has been rocked by conflict over wolves, whose return to rural landscapes after their extirpation a century ago has brought them into new, often violent relations with human society. I interpret this emblematic instance of human–wildlife conflict as fundamentally a human–human conflict and a manifestation of different deep-seated sociocultural norms and values toward wolves. This social conflict hinges on two competing, underacknowledged forms of commoning—wildlife as a public trust and grazing access to public lands—that already intertwine the economy of the rural Western United States. Amid these tensions, wildlife managers seek to reduce conflict through the targeted killing (“lethal removal”) of wolves that repeatedly prey on livestock. I draw on ethnographic research examining the ongoing debate over lethal removal policy in Washington’s “Wolf Advisory Group,” an advisory committee aimed at transforming Washington’s wolf conflict through collaborative governance. Drawing together the theoretical frameworks of commoning and conservation environmentality, I frame these debates as an effort to produce shared social norms regarding wolf life and death. In this context, lethal removal of wolves functions as a biopolitical intervention targeted to affect social values, producing “social tolerance” for wolves in Washington’s rural landscapes. The paradox of wolf conservation governance is that achieving the social tolerance necessary for long-term recovery requires that the state kill wolves in the name of shared common interest and responsibility.

Keywords: Wildlife, Conservation, Commoning, Environmentality, Human–wildlife conflict, Biopolitics

Introduction

In the past decade, Washington State has been rocked by conflict over gray wolves (*Canis lupus*), which are recolonizing rural landscapes across the Western United States after their eradication nearly a century ago. While conservationists celebrate the restoration of these apex predators and the “rewilding” of the ecosystem, ranchers bemoan the repeated loss of livestock to dangerous predators. Conflict over wolves’ predation of livestock, especially cattle, has led to wolf poaching, repeated state intervention to kill “problem wolves,” and death threats against ranchers, wolf advocates, scientists, and state officials. Those officials have struggled to bring stakeholders together to develop a policy for managing the wolf population that will please all parties. Many stakeholders in Washington ostensibly share the goal of “reducing human–wolf conflict,” or as the state’s Wolf Conservation and Management Plan puts it, “promoting the public’s coexistence with the species” (Wiles et al., 2011, p. 9), but the intensity of the ongoing human–human conflict over wolves demonstrates that there is little consensus about what this coexistence means or how it should work in practice (see Martin et

al., n.d.). As the social conflict over wolves demonstrates, conservation is not simply a technical problem for scientists to solve nor even merely a question of conflict resolution between stakeholders with different interests. Understanding Washington’s “wolf wars” requires an effort to assess how wildlife conflict is inevitably entangled with and overwritten upon deep political, economic, and cultural differences in the context of the Western United States.

I draw on the framework of multispecies political ecology (Sundberg, 2011; Margulies and Karanth, 2018; De Silva and Srinivasan, 2019) to examine how conflict over wildlife reflects “deep-seated questions about identity, belonging, and access to resources” (Hennessy, 2019, p. 14). That is, Washington’s wolf controversy is not just about wolves but about human relations, not only with one another but also with land, animals, and resources (Wilson, 1997; Martin et al., 2019). Conflict over wolves represents competing underlying social values, deeply rooted in people’s ways of life and social identities, that inform very different management actions such as when and how to kill wolves to mitigate livestock losses. I draw on ethnographic research on the wolf controversy in Washington, and specifically focus on the state’s Wolf Advisory Group (WAG), which consists of stakeholders from different social and political groups across Washington and provides guidance and recommendations to the

¹ Department of Geography, University of Washington, Seattle, WA, USA

* Corresponding author:
Email: anderrm@uw.edu

Washington Department of Fish and Wildlife (WDFW). More than simply a group of advisors, the WAG represents a process of participatory governance aimed at reducing conflict through the collaborative engagement of stakeholders with opposing views. My empirical data include 25 qualitative interviews conducted in 2019–2021 with WAG members and other stakeholders, including livestock producers, conservation nongovernmental organization representatives, and state and federal agency staff, among others. It also includes field notes and transcripts from participant observation, including attendance at WAG meetings (which are open to the public) in the period 2018–2020 and minutes from earlier meetings made available by WDFW.

I focus on the ongoing debate and negotiation at the WAG over when the state should “go lethal,” meaning, step in to kill an otherwise protected wolf when nonlethal measures aimed at deterring wolves from preying on livestock do not succeed. I frame the negotiation over the use of lethal removal through the lens of *conservation biopolitics*, a concept drawing on the work of Michel Foucault, as well as more recent work in human geography and animal studies, that examines how conservation works to foster and care for certain forms of life while making others disposable. I argue that lethal removal works as a biopolitical intervention to promote the life of the population, at the expense of the individual wolves that must be killed, on the basis of social norms regarding what is acceptable wolf behavior that humans can “live with” (Lorimer, 2017; Peltola and Heikkilä, 2018). The WAG negotiations over lethal removal amount to a social process of negotiating shared norms regarding wolves’ lives, and deaths, at the hands of human wildlife managers. In this way, conservation biopower functions through what Foucault called governmentality, or the “conduct of conduct”: Environmental governance is enacted through the reproduction of competing narratives about human–wildlife relations, which differently emphasize biosecurity via eradication of threat, or the value of biodiversity as source of ecological health and resilience.

In contrast to the prevailing idea that the objective of lethal removal is to change wolf behavior to prevent livestock losses, I examine how killing wolves is used to change human behaviors, norms, and values. Lethal removal is used to create what WAG members commonly refer to as “social tolerance” for the presence of wolves on the landscape, based on the expectation that livestock producers will be more tolerant of wolves if lethal management tools are available when needed. Notably, (in)tolerance for the presence of wolves on the part of livestock producers is mirrored by (in)tolerance for killing wolves on the part of environmentalists. A significant, though often unstated, objective of the practice of lethal removal is to shift values and attitudes regarding the killing of wolves, normalizing increased tolerance (on both sides) for population management conducted by the state wildlife agency. Here, I bring insights from the critical geography literature examining practices of “commoning,” used here to refer to the production of mutually shared values and norms regarding the management of environmental

systems. As the objective of “producing social tolerance” for wolves shows, human attitudes toward wildlife are not fixed or inherent but continually reproduced through processes of subjectification by which people come to understand themselves in relation to landscapes and animals, with the potential to produce a set of values held in common.

I frame the WAG as such a (potential) site of commoning—or more precisely, of reexamining taken-for-granted imaginaries of land and wildlife as commons. Through this process, tolerance toward wolves is reproduced via the normalization of shared values and practices, including the use of lethal removal to address repeated depredation situations. Drawing together the commoning and environmentality literatures provides a joint framework for examining the complex processes of social construction of norms regarding wild animals’ life and death. This relational, multispecies approach to the construction of shared social values toward wildlife—as part and parcel of the construction of the self as an (environmental) subject—adds depth to existing scholarship on human attitudes toward wildlife. In conclusion, I argue that wolf conservation is just as much about reproducing shared human values to produce subjects willing to coexist with wildlife as it is about reproducing animals.

Conservation environmentality and the governance of the commons

I frame the practices of conservation as *biopolitical*, drawing on Michel Foucault’s concepts of biopower and governmentality as applied to nonhuman lives. Foucault describes how the sovereign state’s power “to take life or let live was replaced by a power to foster life or disallow it to the point of death,” bringing the reproduction of life itself “into the realm of explicit calculations and [making] knowledge-power an agent of the transformation of human life” (Foucault, 1990, pp. 138–143). Although Foucault’s interest was notably centered on human life, many scholars have examined the role of “biopower that extends beyond the human” (Collard, 2012, p. 29). As Braverman (2015) writes, the practices of biodiversity conservation are premised on a “foundational goal of affirmatively saving life,” making them emblematic of the imperative to care for and improve, not merely discipline and dominate, processes of life and death (p. 227). A growing body of literature in critical geography and animal studies treats wildlife management as a biopolitical endeavor that amounts to fostering or “making live” desirable animal populations and killing and/or “letting die” those that threaten them (e.g., Biermann and Mansfield, 2014; Chrulew and Wadiwel, 2016; Srinivasan, 2017; Stokland, 2020). Conservation requires the management of circulations and reproductions of animal life via intertwined practices of harm and care that often include killing some animals to make others live (Srinivasan, 2014). Animals are differentially valued—and therefore protected, disregarded, or “made killable” (Butler, 2006; Haraway, 2008; Connors and Gianotti, 2021)—based on hierarchies of human value and threat, which are often predicated on the concept of biodiversity as a collection of pure, distinct types to be

protected (Biermann and Mansfield, 2014). Such hierarchies are neither inherent nor static but continually and dynamically reproduced through processes of social contestation.

In this way, conservation biopower operates through the reproduction of cultural values and the construction of social norms of behavior around the choices of when and how to kill animals or make them live. Wildlife governance is inherently normative, accomplished through “technologies of the self” (Foucault, 2003) that “mobilize human subjects to discipline their own behavior” (Biermann and Anderson, 2017). This process of governance through normalization and social regulation of shared values (which Foucault called “governmentality”) has been applied to environmental governance as “green governmentality” or “environmentality” (Rutherford, 2007; Fletcher, 2010, 2017; Srinivasan, 2017). This analytic frames contemporary environmental governance as the production of environmental norms and values, upheld by the “environmental subjects” who act on behalf of the natural world (Agrawal, 2005; Rutherford, 2007; Robbins, 2012; Srinivasan, 2014).

Recent scholarship has brought the environmentality perspective to bear on practices of managing and governing shared resources, or “the commons” (e.g., Singh, 2017). In contrast to Garrett Hardin’s infamous “tragedy of the commons” thesis, which argued that commonly held resources were inevitably abused or destroyed because people had no incentive to manage them sustainably (Hardin, 1968), more recent work on shared resource management has shown that people are not necessarily motivated purely by self-interest and that social values and norms often play a significant role to produce reciprocal cooperation within communities (e.g., Ostrom et al., 1999). As Singh (2017) puts it, “local residents, or the commoners, do not stand as silent spectators in the face of an unfolding ‘tragedy’ but rather devise rules to self-govern and avert the tragedy through a ‘bottom-up crafting of institutions’” (p. 756).

As John Wagner notes, the term “commons” is widely and inconsistently used across both academic and public discourse and may refer to land itself (“common property”), natural resources (“common-pool resources”), institutional structures for management of land and resources, and/or shared social imaginaries around collective use and management of land, resources, and even technology, knowledge, or other “new commons” (Wagner, 2012). The latter sense of “commons-as-social-imaginary”—that is, a shared understanding of access, ownership, and belonging, which is constitutive of a sociopolitical community—aligns with an emphasis on “commoning” as a verb, rather than a noun, describing collaborative actions of governance through the negotiation of collective social norms and values. Although “commoning” is often used to describe the articulation of counter-hegemonic values in opposition to global capitalism (Bollier and Helfrich, 2015), here I follow Nightingale (2019) to take the term more broadly to refer to the construction of shared social imaginaries that shape how people recognize and think about themselves, especially with regard to the

management of the landscapes and socio-natural systems they rely on. In this broader sense, a commons is “a set of more-than-human, contingent relations-in-the-making that result in collective practices of production, exchange and living with the world” (Nightingale, 2019, p. 18) and thus may encompass land and resources, the community and shared norms of governance organized around them, and the social imaginary that constitutes them as collectively held. I draw together the concepts of “commoning” and “governmentality” to examine the collective social processes of environmental governance which include the biopolitical dilemmas of wildlife management. Such processes are not necessarily choices negotiated between (preexisting) rational actors, but instead processes of relational subjectification, whereby “environmental subjects” are continually (re)produced by and through their affective relations with places, animals, and one another.

Of course, scholars of conservation have long recognized that human cultural and social values play a critically important role in processes of wildlife conservation and management, including wolves specifically (e.g., Kellert et al., 1996; Mech, 1996; Nie, 2003). Wildlife conservation and the mitigation of human–wildlife conflict are increasingly recognized to be as much social as ecological challenges (Baruch-Mordo et al., 2009; Dickman, 2010), and predator conservation in particular requires promoting social tolerance (Chapron et al., 2014), especially in contexts where the recovery of predator populations is supported by human constituencies that are geographically removed while negative impacts are borne locally (Treves and Bruskotter, 2014; Lute and Carter, 2020). While much of the public in the United States supports the use of nonlethal tools to promote human–predator coexistence (Slagle, 2017), rural residents and ranchers may remain more likely to favor lethal removal (Dietsch et al., 2011; Treves et al., 2013; Responsive Management, 2019).

Social research has demonstrated strong correlations between categories of social identity (such as “environmentalist” or “livestock producer”) and attitudes toward wolves, including willingness to kill them or support their killing by the state (e.g., Naughton-Treves et al., 2003; Lute et al., 2014; Carlson et al., 2020; van Eeden et al., 2021). However, such social identity categories are typically self-identified by respondents, and their meaning often goes unexamined by either respondents or researchers. In this way, the existence of differing cultural “identity” groups (with shared values toward predators such as wolves) may appear as the preexisting ground upon which human–wildlife conflict is built. By contrast, an analysis of wildlife management as a mode of environmentality treats human attitudes toward wildlife not as preformed and stable but part and parcel of the production of knowledge about wildlife—and indeed, the production of wildlife itself—in a contested political terrain (Robbins, 2006; von Essen, 2017). In this way, the politics of the environment is not merely a question of struggles played out between interest groups (over preexisting resources, land, and/or nonhuman beings) but also the production and renegotiation of social and political identities, constituted in relation to particular places, ecological

relations, and both human and nonhuman lives and bodies (Whatmore, 2002; Castree, 2003; Hobson, 2007; Sundberg, 2011; Mansfield et al., 2015).

This work is attentive to the sociocultural formations and processes through which categories of social identity and related social imaginaries of land and wildlife as commons are produced. This approach adds complexity and nuance to the study of social dimensions of wildlife management, building upon recent work in the predator conservation literature. For instance, in an analysis of how attitudes toward predators correspond with social identity categories, van Eeden et al. (2020) argue that social identity “can be thought of as a process” and “provides a means of defining the self” (p. 907). Attention to the production of collective social imaginaries, through the lenses of commoning and environmentality, brings deeper nuance to the processes through which the self is defined, not only as an individual but in the context of socio-natural relations. Understanding conservation not as the straightforward, objective protection of nature, but as the simultaneous and intertwined (re)production of embodied animals, scientific knowledges, and the various “environmental subjects” who act on behalf of the natural world calls into question the normative, value-laden, biopolitical objectives of conservation, such as biodiversity conservation or endangered species preservation. As Pelto and Heikkilä (2018) ask, “What populations should be conserved in a world consisting of entangled lives rather than clear-cut categories?” (p. 211)

Washington’s wolves, from eradication to return

The gray wolf was the target of an extermination campaign in the 19th and early 20th centuries that eradicated wolves from the contiguous United States by the 1930s. After being protected by Endangered Species Act listing in the 1970s, wolves were reintroduced in Yellowstone National Park (Wyoming) and central Idaho in 1995 and 1996 and have since spread to Montana, Washington, Oregon, California, and most recently Colorado. Wolves first returned to Washington in 2008 and have made a significant comeback, with at least 24 known wolf packs (and counting) now found in Washington (WDFW et al., 2021). Wolves in the eastern region of Washington are considered to be part of the broader Rocky Mountain population, which was delisted from federal protection in 2011, leaving wolf management policy to the states and making possible the development of very different approaches across state lines. Unlike in many other western states, where wolf populations have also been delisted at the state level and can now be hunted or trapped, wolves remain protected as an endangered species under Washington state law.

The return of wolves to Washington is emblematic of a biopolitical shift from predator extermination to wildlife conservation in American society—from killing wolves to making them live. Until the early 20th century, wolves were methodically exterminated in North America according to a prevailing settler mentality that framed them as the “big bad wolf”—threatening, bloodthirsty, even satanic.

As Rutherford (2018) writes, state-sponsored killing of wolves via the bounty system “served as a technology of colonization, one tentacle in an all-out assault that replaced a complex web of Indigenous nationhoods, lifeways, knowledges, and practices with European ones” (p. 4). Today’s predominant cultural discourses frame wolves quite differently. Beginning with the ecological movement in the 1940s, and continuing through endangered species listing in the 1970s, to reintroduction in the 1990s, to contemporary rewilding efforts, American society has seen an increasing cultural reinterpretation of wolves as noble and heroic (Coleman, 2006). Today, advocates see wolves as a native keystone species and apex predator and herald their return as large-scale ecological restoration, setting off trophic cascades that work to increase complexity and diversity in the ecosystems they return to (Ripple and Beschta, 2004, 2012; but compare Mech, 2012; Marris, 2017).

The anti-wolf sentiment that characterized the era of extirpation represents an imperialist biopolitical mode of state control over animal life, under which predators such as wolves were perceived as threats to be eliminated due to the imperative to improve human life and well-being. The shift to making wolves live, by contrast, can be described as part of a more “probiotic” mode of socio-environmental governance that seeks to promote biodiversity and embrace wildness on scales ranging from the microbial to the continental (Lorimer, 2017). This cultural shift is unevenly distributed across social and geographic strata, though, and far from universal or complete. The various parties to the controversy over wolves in Washington draw on competing cultural discourses that still frame wolves quite differently: as an endangered form of biodiversity and a charismatic emblem of conservation efforts, or as a dangerous, bloodthirsty predator that threatens rural lives and livelihoods, especially cattle ranching.

These competing discourses about wolves overlap with and reinforce patterns of social–political difference in a state characterized by a strong divide between rural, agrarian regions east of the Cascade Mountains and urban centers on the west coast (where wolves have not yet returned). Much of the controversy over wolves in Washington centers on the predation of livestock by wolves in the northeast corner of the state (Ferry, Stevens, and Pend Oreille counties) and the killing of wolves in those areas in response. Among rural eastern Washington’s livestock producers, anti-wolf sentiment is often fueled by fears of the loss of their way of life. In interviews, livestock producers argue that the return of wolves poses a threat to their livelihoods, making it difficult or impossible to sustain ranching economically. Because wolves have not been present on this landscape in living memory, their return is viewed by many local residents with suspicion—at best, as an economic burden for livestock producers, and at worst, a massive conspiracy by government and environmentalists to eliminate public lands grazing, effectively pushing ranchers off the land. Wolf advocates argue that wolves kill only a small number of cattle, and point out that the state compensates ranchers for those losses. Many ranchers counter that such compensation

amounts to only a fraction of the total impact, since cattle are lost that cannot be confirmed as wolf kills, and the stress caused by predators may lead to less weight gain by cows, fewer pregnancies, reduced birth rates, and other uncompensated effects that hurt livestock producers' bottom line. While the state has attempted to take such considerations into account in their compensation plan, many producers argue that the process of applying for compensation is too bureaucratic and slow to be worth their time. Some others refuse on principle to accept payments from the state, either out of a broader antipathy toward government overreach or because to do so would imply endorsement of the very idea of coexistence with wolves. While such social dynamics, divided along sociopolitical and urban/rural fault lines, are typical of conflict over wolves on recolonized landscapes across the American West (Wilson, 1997; Mech, 2017), many local residents describe northeastern Washington as a particular "hot spot" of social conflict.

Despite the libertarian political views espoused by many rural landowners and livestock producers, the way of life they seek to protect is actually dependent on access to common resources, specifically the use of public lands for grazing cattle. These public lands (mainly in the Colville National Forest) are managed under a multiple-use doctrine that includes both grazing livestock and promoting wildlife, as well as recreational and other uses, and tensions that arise between these uses cause significant challenges for the agencies charged with their governance (Martin, 2019). In this way, wolf–livestock conflict in Washington represents a conflict between competing social imaginaries regarding two perceived "commons": the wolves themselves and the national forest lands on which they live. A social imaginary of wolves as a commons is reflected in the management of the wildlife of the United States as a public trust that cannot be owned, but is managed by the federal government in trust for its citizens (McTaggart-Cowen and Geist, 1995), and in the broader idea that biodiversity represents the "common heritage of mankind" (see Ranganathan, 2016). Wolf advocates frequently appeal to both ideas to position wolf conservation as a "public good" that benefits people far removed from the local community. Meanwhile, access to public lands for livestock grazing across the Western United States has been described as a "new American commons" (Worster, 1993, p. 104; see also Sheridan, 2005), and many livestock producers interpret their access to grazing as a fundamental right rather than a privilege permitted under the legal ownership and management of the federal government. Access to grazing lands is not only essential to their economic model but deeply intertwined with ranchers' sense of identity, including a widespread sentiment that they act as "stewards" of the landscape. In this way, both ranchers' and environmentalists' arguments regarding which people, animals, and economic and ecological processes belong on the shared landscapes of rural Washington's wolf country amount to the construction of competing "socio-natural subjectivities" (Nightingale, 2019), rooted in deep-seated (and more-than-human) imaginaries and practices for living in

the world. The two perceived "commons" exist within the same geographic territory but do not neatly correspond since wolf populations defy human-constructed boundaries, migrating and spreading across borders and property lines on a patchwork of public and private lands. Significantly, the wildlife and the land are governed by different institutions: WDFW manages wolf policy, while the U.S. Forest Service issues grazing permits, via different processes with relatively little coordination. Competing social expectations about the public's rights vis-à-vis these resources—such as who has access for grazing or whether and when wild animals can be killed—represent very different imaginaries of "the commons," and those differences in social imaginary are the basis of the underlying human conflict that wolves have quite literally wandered into.

The WAG and the (bio)political controversy over killing wolves

Aiming to reduce human–wolf conflict and ease tensions over the issue, the state of Washington convened the "WAG," a committee of stakeholders representing diverse interests from around the state, to advise WDFW on wolf policy. Initially created in 2013, the WAG was revamped in 2015 in consultation with Francine Madden, whose "Conservation Conflict Transformation" approach draws on peacebuilding techniques to overcome deep-seated, identity-based conflicts over conservation issues (Madden and McQuinn, 2014; Madden, 2015). The WAG works via a process of participatory, collaborative governance and problem-solving, built on a model of "sufficient consensus" in which participants hash out their differences in often-extended conversations until they are able to coalesce around a shared set of recommendations to offer back to the state. Recruited and appointed by WDFW, each member of the WAG is identified as belonging to one of three distinct stakeholder groups: livestock producers, hunters, or environmentalists. By bringing these groups with strong disagreements together to discuss the issues, the WAG is intended to overcome cultural differences to develop collaboration and consensus, with representatives communicating the conclusions reached by the group back to the communities they represent.

One of the major tasks before the WAG over the last several years has been to develop a protocol for WDFW to decide when to kill wolves in the case of repeated wolf–livestock conflict. The WAG collectively wrote what was originally called a "lethal control protocol," which has since evolved into a "wolf–livestock interaction protocol" that emphasizes the use of nonlethal methods to deter depredation (WDFW, 2017). Per protocol requirement, livestock producers "are expected to proactively implement at least two deterrence measures," in collaboration with WDFW. Such measures include the presence of range riders, techniques for "hazing" wolves to frighten them away from livestock, the use of scare devices such as radio- or motion-activated lights or sirens, and barriers such as fladry, among other tools. When such efforts fail, however, the state turns to "lethal removal," or targeting killing of the "problem wolves" that have repeatedly preyed on cattle.

The question of what the criteria should be to justify the shift from these preferred “nonlethal deterrence tools” to the practice of lethal removal—that is, when to “go lethal on them,” as it is often described in discussion—has been a challenging sticking point in WAG conversations. Many livestock producers suggest that the state should be aggressive in killing wolves that have demonstrated any interest in livestock, while conservation advocates aim to reduce and minimize wolf deaths. The current iteration of the protocol (written in 2017 and revised by the WAG through a contentious process over the course of the 2019 and 2020 grazing seasons) lays out the requirements for consideration of lethal removal of wolves, which include confirmation of “at least three wolf depredation events within a 30-day rolling window of time, or at least four wolf depredations within a 10-month rolling window of time,” despite ongoing proactive deterrence measures, at which point the head of WDFW may choose to authorize lethal removal (WDFW, 2017). This is accomplished either by setting traps for wolves on the ground, or using a spotting plane to find the wolf pack in question, working in tandem with a sharpshooter in a helicopter to chase down and kill the targeted wolf or wolves.

Under current policy, lethal removal of wolves has become a normalized, semi-routine practice, though still a source of controversy and anger each time it occurs. Three wolves were killed by WDFW in 2020, nine in 2019, four in 2018, three in 2017, and seven in 2016. This pattern of repeated removal is decried by many environmentalists, who call for increased efforts at nonlethal deterrence and a higher threshold for “going lethal.” Both pro- and anti-wolf groups tend to portray their opponents on the issue as holding extreme views. Cattle producers frequently characterize the environmentalist objective to be not only a complete ban on lethal removal but also to use the wolf issue as a wedge to push for an end to public lands grazing across the Western United States. On the other side, environmentalists describe lethal removal as a continuation of the historical project and mentality of wolf extermination and describe ranchers as calling for a return to the “bad old days” when they could shoot wolves indiscriminately.

While there are certainly individuals who do hold these positions, and can thus be pilloried by their opponents in press releases and opinion columns, in-depth conversations with people closely invested in the issue reveal more nuanced positions than this black-and-white framing would suggest. Livestock producers in northeastern Washington repeatedly emphasize that they accept (if grudgingly) that “the wolves aren’t going away” and that the goal is coexistence rather than extermination.¹ Their frustration and anger are often aimed not at the wolves themselves so much as at WDFW, for what they as “insufficient management” of the wolf population. In

1. Unless otherwise attributed, all quotations from WAG members and community members throughout this article are drawn from anonymous, semi-structured, qualitative interviews, conducted by the author during 2019 and 2020, and represent repeated themes evoked in these conversations.

areas with healthy wolf populations, they argue, wolf management in Washington should follow the model established in states like Idaho and Montana, where wolves that prey on cattle are routinely killed (without an apparent negative effect on the viability of the population) by the U.S. Department of Agriculture’s Wildlife Services program.² This approach allows for fast, decisive action, which is arguably more effective for reducing depredations (Bradley et al., 2015), though the effectiveness of lethal removal for changing wolf behavior remains a topic of debate among both practitioners and scientists.³ It stands in contrast to Washington’s process, which requires proof of multiple wolf-caused depredations, evidence of prior use of nonlethal deterrents, a recommendation for lethal removal from the state’s wildlife biologists, and the final go-ahead from the head of the state agency.

On the other hand, the question of whether to support (some level of) lethal removal has become a dividing line for the environmentalist community. Among the groups representing the “environmental” perspective at the WAG table (which include representatives from Conservation Northwest, the Humane Society, and Wolf Haven), many are quick to say that they do support livestock grazing on public lands and even the use of lethal removal when necessary to allow coexistence of wolves and livestock. However, they call for increased requirements and standards for nonlethal measures to be implemented first, with the objective of avoiding the use of lethal removal whenever possible. By sitting “at the table,”⁴ however, these groups have effectively signed off on a policy that allows for killing wolves, a compromise that is anathema to some of their supporters, and has caused them to lose

2. As cattle producers are quick to point out, lethal removal is widely used across other states where wolves and livestock co-occur; in Washington, it has been considered a “last straw” effort to be used only when other nonlethal methods fail.

3. Competing scientific evidence is cited by opposing sides of the debate, with the objectivity of scientists producing that evidence also sometimes called into question. As DeCesare et al. (2018) put it, “Studies of targeted lethal control have been controversial regarding its effectiveness for reducing depredations by wolves” (see Wielgus and Peebles, 2014; Bradley et al., 2015; Kompaniyets and Evans, 2017). Meanwhile, the question of whether judicious use of lethal removal actually leads to fewer wolves dead in the long run—a social question as much as an ecological one—has yet to be empirically tested. A recent review of the scientific literature on predator control more generally (Treves et al., 2019) formulates this unresolved question in terms of whether removal amounts to “turning up the heat” or “turning down the heat” on the conflict and calls for further study.

4. Although this phrase is used frequently by members to describe the choice to sit on the WAG, there is not actually a table at meetings. Prior to 2020, WAG meetings were typically conducted in a seated semicircle arrangement, with a second “outer circle” of additional advisors who may be asked to weigh in on questions relevant to their expertise but do not have a say in final decisions. Members of the public, including this author, sit in a gallery of seats at the back and participate only during the daily public comment period. In 2020, all meetings were moved online due to COVID19, with a format in which members and advisors appear onscreen, while the public can dial in to watch and listen.

members and financial support over the issue. Meanwhile, other prominent environmentalist groups (such as Defenders of Wildlife, the Center for Biological Diversity, and WildEarth Guardians) do not have representatives on the WAG, either because they have not been invited or chose not to participate in the process. These groups have frequently turned to the courts as an alternative, suing WDFW to demand that they stop killing wolves. This position recently seemed to gain support from the state's governor, Jay Inslee, who wrote in a 2019 letter to the director of WDFW that the “*status quo* of annual lethal removal is simply unacceptable” (Inslee, 2019). While carefully worded so as not to take lethal action completely off the table, this letter served as a rebuke to the WDFW for being too quick to “go lethal” and called for a deeper commitment to nonlethal measures.

The letter re-sparked an already contentious debate over the issue within the WAG, with livestock producer representatives arguing that Inslee was “politicizing the issue,” and undercutting their work toward consensus, by putting a thumb on the scales on the side of the environmentalist lobby. The governor's intervention into the lethal removal debate points to the geographic divide that underlies the wolf controversy in Washington. Much of the state's environmentalist lobby is located on the more urban west side, which tends to dominate policy at the state level, while wolves exist mainly in the rural eastern part of the state. The Democratic Party currently holds the trifecta of the state's governor's office (continuously since 1985), the state House of Representatives (since 2002), and the state Senate (since 2018), and environmental policies in general have strong support in state government. In contrast to the idea of following in the footsteps of states like Idaho or Montana with regard to the wolf issue, many environmentalists see Washington as the opportunity to do things differently, and to set an example for a coexistence approach based in nonlethal measures. (The phrase “this is Washington, and we're different” has been repeated enough times at WAG meetings that it is now mainly used by livestock producers as a sarcastic shorthand for environmentalist intransigence.) Meanwhile, cattle producers argue for local authorities such as the county sheriff to be authorized to use lethal control, with lower requirements than the rules set by the WAG allow. In so doing, they frame the wolf issue as a case of governmental overreach, in which bureaucratic requirements are imposed by outsiders lacking in understanding of a local issue.

Lethal removal as biopolitical governmentality

The debate over lethal and nonlethal methods for deterring wolf–livestock conflict in Washington is emblematic of the biopolitical character of wildlife conservation. As Foucault (2003) noted (again, speaking of human life), biopolitical efforts to foster the life of particular populations are entangled with modes of power that aim to control and punish, including through public displays of the state's power to kill (p. 242). With regard to the behavior of wolves themselves, many of the practices of wolf management are best described as the deployment of

disciplinary forms of power aimed at an animal population, explicitly attempting to use wolves' own perception of risk to elicit behavioral changes in the population. For example, nonlethal deterrent and “hazing” techniques aimed at conditioning wolves to behave in acceptable ways are disciplinary tools to control the wolf population, through repeated negative interactions with humans that inculcate fear in the wolves themselves (Miller and Schmitz, 2019; compare Rinfret, 2009). When such tools fail, lethal removal aims to eliminate wolves with learned behaviors such as preying on cattle—justified by the identification of individual “problem wolves” and/or wolf packs, distinguished from the population being fostered as a whole. The combination of lethal and nonlethal deterrence techniques functions to eliminate wolves that prey on livestock while conditioning “normal” predation behavior (targeting wild prey such as elk) in surviving wolves. These are practices explicitly aimed at disciplining wolf behavior through violence, or the threat of violence, in order to reinforce wolves' “natural” fear and avoidance of people.

The stated goal of Washington's wolf–livestock interaction protocol is to “influence/change wolf pack behavior to reduce the potential for recurrent wolf depredations on livestock while continuing to promote wolf recovery” (WDFW, 2017, p. 2). Deterrence is accomplished through a combination of disciplinary and biopolitical techniques aimed at controlling the wolf population: Wolves that behave in a particular way are allowed to live, while those that do not are killed. Conservation biopower thus works to reproduce desirable wolf behaviors—what Stokland (2020) has described as “conserving wolves by transforming them”—even as popular discourses about conservation emphasize increasing the population of “wild” wolves.

Significantly, these disciplinary and biopolitical techniques for managing animals depend on the (re)production of the human social norms that justify wolves' life and death, making some animals recognizable as the objects of conservationist protection, while others are understood to be killable. As biologists Musiani and Paquet (2004) put it, “societal values ultimately determine the survival of species such as the wolf” (p. 50). The competing discourses that frame the coexistence debate (presenting wolves as either deadly predators and threats or crucial and valuable drivers of biodiversity) are reiterative of social norms that define whether (and when and how) wolves can and should be killed. Such norms are part of the broader biopolitical project of conservation to determine which populations and circulations of nonhuman life are protected, disregarded, or made killable. In this way, the conservation of a living, breathing, material wolf population is entangled with the discursive (re)production of cultural values about wolves. Although wolves are often seen to epitomize “wildness,” they are in fact socially *produced*: Their presence is the direct result of the shifting human values and subsequent actions and policies that have allowed, or even required, their population to be fostered in the 21st century after being exterminated in the 20th (Manfredo et al., 2009; Chapron et al., 2014).

In the social context of these shifting and contested cultural values about wolves, lethal removal must be understood as a biopolitical intervention aimed not only at the wolves themselves but also at the human populations whose actions coproduce the wolf population. Apart from its effect on wolf behavior, lethal removal also works to provide reassurance to people whose livelihood may be threatened by the changing cultural and political-economic landscape, reassuring concerned rural residents that wolves still remain killable in the eyes of the state. This “social tolerance” for the return of (well-behaved) wolves is widely considered to be the key ingredient in successful reduction of human-wolf conflict. One rural resident tells me that “you gotta buy some social tolerance” for wolves in the rural communities of northeastern Washington, and that to do that, “you have to be willing to kill at least some of them.” This position was echoed by one of the environmentalist representatives on the WAG, who tells me that “the Department [of Fish and Wildlife] has no choice but to kill wolves” because they “have to get social buy-in from ranchers.” In this way, social tolerance for killing wolves on the part of environmentalists is prerequisite to achieving social tolerance of living with wolves on the part of cattle ranchers. The decision to “go lethal” not only functions to make otherwise protected animals killable but even goes farther to frame their deaths as necessary in order to sustain support for the protection of wolves in general.

Although the debate over lethal control at the WAG originally emphasized its effects on wolf behavior, the group has increasingly paid attention to this issue of social tolerance, and more broadly, to the human effects of the management policies they recommend, often referred to as “managing the social side” of wolf conservation. Conversations about lethal control have tended to shift away from engaging with the controversial question of whether lethal removal actually works to effectively deter depredation, instead focusing on whether and how “going lethal” helps, or hinders, the production of social tolerance. This easy slide from the ecological to the “social side” was evidenced at a recent WAG meeting, where a brief discussion of lethal removal changed gears when one environmentalist representative said, “the *social* thing is, people just don’t like to see wolves killed year after year, especially when it’s on public lands,” prompting a cattle producer to quickly respond that “people” don’t like seeing livestock killed repeatedly, either. Searching for a middle ground, one representative offered the idea that the “public perception” of lethal removal is the issue, even more than lethal removal itself, and that “it might be more socially acceptable for having lethal” if the process for approving it, when needed, moved more quickly.

Another environmentalist representative of the WAG tells me, “If lethal wasn’t on the table, ranchers would walk away from using proactive deterrents,” and conservationist advocates should be “doing everything we can to assist ranchers to adapt to wolves being on the landscape.” For this reason, while state officials and conservationists are quick to say that “no one likes seeing wolves get killed,” they increasingly accept that conservation of the wolf

population as a whole requires that the state kill some wolves in order to keep ranchers on board with nonlethal approaches to deterrence, as well as to discourage poaching. Wolf advocates who have supported the WAG’s decision to continue using lethal removal argue that more wolves’ lives are, in fact, at risk if the state is unable to secure rural residents’ cooperation and support. Referring to lethal removal, they tell me, “ultimately this is better, not only for the cattle and the people but also for the wolves,” explaining that they believe that there will be fewer wolves killed in the long run if the WAG can find a set of practices to create sufficient social tolerance for their presence. As a biopolitical intervention, then, the practice of lethal removal appears to serve as a social tool, working to influence public perceptions and attitudes toward the wolf conflict, as much or even more than it is an ecological tool aimed at affecting wolf behavior to reduce livestock depredations. From the perspective of wolf advocates willing to endorse the lethal policy, the use of lethal removal is in fact part of the continued normalization of the cultural shift toward treating wolves as a desirable form of life to be fostered and building willingness on the part of livestock producers to cooperate in coexistence efforts. This includes normalizing both the need to kill some individual “problem wolves” and the idea that judicious use of lethal removal works for the benefit of the wolf population as a whole.

Although the idea that killing wolves promotes social tolerance has also been debated in the conservation literature (e.g., Treves and Bruskotter, 2014; Santiago-Avila et al., 2018), its social role in this specific context is made clear in the demands of many cattle producers, who say they are willing to continue to use nonlethal measures and practice “coexistence” if and only if WDFW will move toward faster, more decisive action to kill wolves when those measures don’t succeed. As one local resident describes it, livestock producers feel like “everything [is] being shoved down their throats” and that producers’ willingness to cooperate would be improved if they “had some ownership of this . . . if you can get people to some level of ‘I own this issue,’ then they start tolerating the outcome.” One livestock producer tells me directly, “if you did try things people over here ask for and bring up, *whether it worked or not*, you’d have a better relationship” (emphasis added). In this way, lethal removal appears to be effective on the producers’ “social side,” at least in the present moment, based on its perceived effectiveness as a behavioral management tool. While recent scientific reviews agree on the need for further evidence-based research on the effectiveness of lethal and nonlethal tools for reducing predator-livestock conflict (e.g., Treves et al., 2016, van Eeden et al., 2018), this case demonstrates the need for further social science research on the social impacts of such tools, and the policies and policy-making frameworks that guide their implementation.

The ongoing debate over lethal removal as a tool for social tolerance in rural Washington is demonstrative of how wolf conservation operates by managing and normalizing particular social values—that is, it exemplifies

biopolitical environmental governance through processes of social discipline, or environmentality. The prevailing justification for lethal removal as a biopolitical intervention is that it promotes the life of the population as a whole, at the expense of a few individuals—making certain wolves killable in the service of broader human–wolf coexistence. The use of lethal removal thus hangs on the balance between competing preexisting values toward killing wolves, but the discourse and debate over lethal policy also influences and reshapes those values. The recommendations that have been developed by the WAG in the wolf–livestock protocol, while explicitly described as aiming to manage wolf behavior, are increasingly understood by decision-makers as being about managing the human values and attitudes to build social tolerance. Doing so requires the state to walk a fine line: on the one hand, taking action to kill wolves responsively enough to convince residents that the state agency is acting to keep wolves in line, and thereby to build trust for the state's continuing authority in wolf management, while not killing so many wolves as to inflame public opinion among the broader (largely environmentalist) public in Washington State. Put another way, lethal removal amounts to killing wolves to demonstrate that wolves remain killable, and thereby, to help wolves survive.

"Social tolerance" and the making of the coexistence imaginary

Significantly, the production of social tolerance for wolves and the normalization of lethal removal as a tool for producing that tolerance are happening simultaneously around the WAG table as across the state more generally. While WAG members frequently refer to "managing the social side," it is not clear to what extent they recognize the social shifts involved in their own ongoing negotiations. Although debate and conflict will no doubt continue, the WAG has reached a tenuous compromise and consensus around the limited use of lethal removal. One member describes it as a "fragile social compact" in which wolf advocates are willing to sign off on lethal removal, implemented by the state only as a last resort, as long as livestock producers agree to attempt nonlethal deterrence first. In other forums and media across the state, both pro- and anti-wolf groups continue to argue for more extreme policy positions (an end to lethal removal entirely, perhaps accompanied by an end to public lands grazing, on the environmentalist side, or the right of citizens to shoot wolves themselves, or at least for the county sheriff's office to do so when needed, on the cattle producers' side). Around the WAG table, though, the parameters for debate are based on the shared expectation that no wolf policy can reasonably expect to completely prevent depredation of livestock and that lethal removal conducted by the state agency will necessarily remain a necessary tool in the toolbox of conflict deterrence measures.

One longtime participant in the WAG explained this process of normalization and moderation of values, saying that when members initially join the group they might "come to war" with extreme views—on the one hand, those who want "every wolf shot and killed," and on the

other, those who want to see wolves "frolicking around, doing whatever" with no human interference whatsoever. Those perspectives are quickly toned down, though "most people on the WAG aren't saying those things anymore." In this way, despite its stated intent to represent the diversity of perspectives across the state, the bounds of acceptable discourse at the WAG are significantly narrowed by their shared commitment to developing consensus. Polarized attitudes (toward wolves in general, and specifically with regard to lethal removal) have yielded, with angry voices that used to argue for more extreme positions giving way to the expectation that WDFW, and the WAG itself by extension, be the arbiters of when wolves should be allowed to live or be killed in the name of improved future coexistence. The existence of the group itself, under the aegis of WDFW and with the cooperation of livestock producers, hunters, and environmentalists, effectively works to promote this compromise as the "mainstream" view, such that dissenting voices from both sides can be framed as extreme viewpoints.

From this perspective, the negotiations taking place within the WAG amount to a practice of commoning, in the sense of developing collective norms and values based on a shared commons imaginary that includes both wolves and livestock on the same landscape. This imaginary incorporates elements of the competing concepts of the "commons" that characterize the wolf debate, envisioning both wolves and the lands they live on as ultimately belonging to the public, despite complex processes of state and federal governance. Importantly, though, the "commons" here is not only the resource or the place, such as the wolf population or the land where livestock grazing occurs, but also the collection of socio-natural relations that allow a shared way of "living with the world" (Nightingale, 2019, p. 18, see also Singh, 2017). Such a way of living with the world—including its predators—is often articulated as "coexistence," frequently described by WAG participants as a key goal of the state's wolf management efforts. The concept of coexistence has varied meanings in the ecological and human dimensions literatures and does not always sit well with land managers and livestock producers (see Martin et al., n.d.). Indeed, some livestock producers still tell me that "coexistence with wolves is just not possible;" on the other hand, some wolf advocates contend that lethal removal should not be considered coexistence: "You can't just keep killing wolves and call that coexisting." Yet these viewpoints are largely articulated from the sidelines of Washington's wolf policy discussions, while coexistence is broadly accepted as the objective of management. As several members tell me, everyone at the WAG table is increasingly in agreement that whatever policy they come up with, "lethal removal will be part of it," but that it should be minimized and used as a last resort. In this way, the idea of "coexisting" with wolves—and specifically, the practice of targeted lethal removal as a means for coexistence—is central to the "fragile" but increasingly prevalent consensus that the WAG has been able to achieve.

Although it has not been previously described via the language of "commoning," the WAG is explicitly aimed at

overcoming cultural and political divides, bringing stakeholders with conflicting views together to find shared values and to understand one another's perspectives on how Washington's wolf population should be managed. And although the atmosphere of meetings remains somewhat combative, numerous members of the group say that the WAG has had a significant degree of success improving relations, as its members have learned to see the issue from one another's perspectives and modified their own position in response. Yet when asked about how their work promotes social tolerance, WAG members frequently point to communities external to the WAG itself, suggesting that the issue is how to get cattle producers to use nonlethal deterrents, or to bring urban environmentalists on board with the judicious use of lethal removal. Such comments demonstrate little recognition of how the WAG itself functions as a process of normalization of shared values, the seed for a broader project of coexistence. While the group is frequently described as "advisory" to WDFW, its objective of "conflict transformation" is explicitly aimed not only at *hearing* diverse stakeholders' perspectives but also at *transforming* those perspectives through the process of discussion and negotiation, in order to reduce conflict between stakeholders. The increasingly recognized goal of "producing social tolerance" makes clear that the biopolitical norms and values that shape human–wolf relations are not necessarily fixed or inherent to particular social groups, such as "ranchers" or "environmentalists," even as attitudes toward wildlife may be found to correlate with such identity categories (e.g., van Eeden et al., 2020). Instead, these norms are continually produced through processes of subjectification and self-identification by which people come to understand themselves in relation to their social and ecological surroundings, making identity itself the product of social relations that are power-laden and continually renegotiated. As Singh (2017) argues, by sharing and negotiating a commons, one "becomes a commoner," part of a collective subjectivity rather than an individualized identity category. Wolf management practices to produce "social tolerance"—that is, to normalize the particular values that underlie willingness to tolerate both having wolves on the landscape and killing wolves when needed—are thus processes of negotiating and (re)producing new socio-natural imaginaries, actively remaking how people recognize themselves, their place in the world, and their relations with wild animals.

The framework of commoning, taken to mean not only the governance of commonly held resources but also the development of a shared "commons imaginary," brings attention to the processes of negotiation over social norms which represent different biopolitical relations with nonhuman animals. Developing new, shared practices for living in a world that includes predators must include coming to terms with the biopolitical norms and processes that govern animal life and death under regimes of environmental management. The concept of "commoning" has often been used to examine how such

relations are constructed "from below," or through the collaborative efforts of commoners, while analyses of environmentality frequently emphasize more top-down processes of subjectification through which power works to shape social values for purposes of governance. Both dynamics are at play in the WAG, as in many processes of collaborative, stakeholder-based environmental governance. The tension between these dynamics is essential to understanding how such governance is simultaneously a process of representing diverse perspectives and values and a tool through which "transformation" of those values can be achieved.

The process of negotiation conducted by the WAG works to change social values to produce a particular kind of environmental worldview that might be described as the "coexistence imaginary," rooted in a belief that people, wolves, and livestock can share landscapes with (relatively) little conflict. Advocates of coexistence argue that it is possible to have wolves on public lands that are also used for livestock grazing and to come up with tools to protect both populations of animals in the name of the public good. But to live with wolves in this way requires both environmentalists and ranchers to revise their own relations with the land and animals. Coexistence depends on adherence to collaborative and communally held norms of behavior and practice, including specifically the biopolitical norms that govern the killing of wolves. The ongoing debate over lethal removal is a discursive formation through which power is internalized and reexpressed to shape relational, socio-natural subjectivities, with the goal of reconciling competing values toward the multispecies assemblage that includes wolves and national forests. The competing identity categories of "environmentalist," "livestock producer," and "hunter" that lend the original structure to the WAG itself are being (re)constructed and (re)produced—indeed "transformed"—through the WAG's conversations, toward an increasingly recognizable subject position that coheres around the concept of "coexistence." In this way, not only animals but also humans are (re)made by conservation biopower, which works to normalize particular values regarding nonhuman lives and construct norms of behavior that support human–wolf coexistence based on state authority over wild life and death.

Conclusion

The controversy and conflict over wolf conservation in Washington provides a study in biopolitical wildlife governance: the administration of animal life accomplished through the proliferation of norms and values that govern human relations, attitudes, and actions toward a wild species. In the case of wolves, political conflict is enacted and reproduced in competing discourses about human–wolf relations, which differently emphasize the need for biosecurity via eradication of a perceived threat, or the value of biodiversity as a source of perceived ecological health and resilience. The ongoing debate in Washington's WAG over whether and when to "go lethal" on wolves that have killed livestock is a social negotiation that both draws on (and reproduces) these competing discourses, even as

the group's values increasingly coalesce around a shared set of biopolitical norms that justify lethal removal of wolves when necessary. While lethal removal officially and explicitly aims to change wolf behavior to reduce livestock depredation, I have shown how its significant purpose as a biopolitical intervention is to also change human behaviors and values, creating increased "social tolerance" for the presence of wolves.

Importantly, this "social tolerance" is a cultural value that represents a deep-seated part of people's identity and subjectivity. The debates over lethal removal in Washington demonstrate how values and attitudes toward wildlife are (re)produced through processes of subjectification by which people come to understand themselves in relation to landscapes and animals. The framing of wolf conservation in terms of biopolitical governmentality and commoning—the latter understood not merely as a process of sharing natural resources but as the production of socio-natural imaginaries—thus offers important insight into the human dimensions of wildlife conservation, revealing the complex processes through which values and norms regarding wild life (and wild death) are produced and contested.

This analytic lends nuance to framings of human–wildlife conflict as rooted in social (identity-based) conflict by examining the processes of *production* of sociopolitical and socio-ecological identities and relations rather than taking them as preexisting. As Singh (2017) writes, commoning amounts to "finding a way to produce alternate subjectivities and alternate worlds" (p. 762) based on shared values and socio-natural relations. If Washington's approach to wolf–livestock interactions is successful in producing social tolerance for wolves, then wolf conservation is at least as much about reproducing and normalizing human subjects versed in the practices of coexistence as it is about reproducing animal populations. The paradox of this form of wolf conservation governance is that achieving the social tolerance necessary for long-term recovery of wolves requires that the state be willing to kill wolves in the name of a shared common interest and responsibility.

Data accessibility statement

To protect the privacy of anonymous sources, the qualitative data (interview transcripts and field notes) on which this article is based are not publicly available.

Acknowledgments

This project was made possible thanks to many anonymous contributors, including but not limited to those quoted in the text, who invited me into their homes, fields, and workplaces and shared with me their perspectives on wolf conservation and management. I am also very grateful to Christine Biermann, Katie Epstein, Jeffrey Grove, Jeff Vance Martin, Cleo Woelfle-Erskine, the members of the University of Washington Simpson Center Society of Scholars, and two anonymous reviewers for their constructive comments and suggestions on earlier drafts of this article.

Funding

This material is based upon work supported by the National Science Foundation Graduate Research Fellowship Program under Grant No. DGE-1256082. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

Competing interests

The authors have declared that no competing interests exist.

Author contributions

Contributed to conception and design: RMA.

Contributed to acquisition of data: RMA.

Contributed to analysis and interpretation of data: RMA.

Drafted and/or revised the article: RMA.

Approved the submitted version for publication: RMA.

References

- Agrawal, A.** 2005. *Environmentality: Technologies of government and the making of subjects*. Durham, NC: Duke University Press.
- Baruch-Mordo, S, Breck, SW, Wilson, KR, Broderick, J.** 2009. A tool box half full: How social science can help solve human–wildlife conflict. *Human Dimensions of Wildlife* **14**(3): 219–223. DOI: <https://dx.doi.org/10.1080/10871200902839324>.
- Biermann, C, Anderson, RM.** 2017. Conservation, biopolitics, and the governance of life and death. *Geography Compass* **11**(10): e12329. DOI: <https://dx.doi.org/10.1111/gec3.12329>.
- Biermann, C, Mansfield, B.** 2014. Biodiversity, purity, and death: Conservation biology as biopolitics. *Environment and Planning D: Society and Space* **32**(2): 257–273. DOI: <https://dx.doi.org/10.1068/d13047p>.
- Bollier, D, Helfrich, S eds.** 2015. *Patterns of commoning*. Amityville, NY: Common Strategies Group.
- Bradley, EH, Robinson, HS, Bangs, EE, Kunkel, K, Jimenez, MD, Gude, JA, Grimm, T.** 2015. Effects of wolf removal on livestock depredation recurrence and wolf recovery in Montana, Idaho, and Wyoming. *The Journal of Wildlife Management* **79**(8): 1337–1346. DOI: <https://dx.doi.org/10.1002/jwmg.948>.
- Braverman, I.** 2015. *Wild life: The institution of nature*. Stanford, CA: Stanford University Press.
- Butler, J.** 2006. *Precarious life: The powers of mourning and violence*. New York, NY: Verso.
- Carlson, SC, Dietsch, AM, Slagle, KM, Bruskotter, JT.** 2020. The VIPs of wolf conservation: How values, identity, and place shape attitudes toward wolves in the United States. *Frontiers in Ecology Evolution* **8**: 6. DOI: <https://dx.doi.org/10.3389/fevo.2020.00006>.
- Castree, N.** 2003. Environmental issues: Relational ontologies and hybrid politics. *Progress in Human Geography* **27**(2): 203–211. DOI: <https://dx.doi.org/10.1191/0309132503ph422pr>.

- Chapron, G, Kaczensky, P, Linnell, JDC, Arx, M von, Huber, D, Andrén, H, López-Bao, JV, Adamec, M, Álvares, F, Anders, O, Balčiauskas, L.** 2014. Recovery of large carnivores in Europe's modern human-dominated landscapes. *Science* **346**(6216): 1517–1519. DOI: <https://dx.doi.org/10.1126/science.1257553>.
- Chrulew, M, Wadiwel, D eds.** 2016. *Foucault and animals*. Leiden, the Netherlands: Brill.
- Coleman, JT.** 2006. *Vicious: Wolves and men in America*. New Haven, CT: Yale University Press.
- Collard, R-C.** 2012. Cougar-human entanglements and the biopolitical un/making of safe space. *Environment and Planning D: Society and Space* **30**(1): 23–42. DOI: <https://dx.doi.org/10.1068/d19110>.
- Connors, JP, Gianotti, AS.** 2021. Becoming killable: White-tailed deer management and the production of overabundance in the Blue Hills. *Urban Geography*. DOI: <https://dx.doi.org/10.1080/02723638.2021.1902685>.
- DeCesare, NJ, Wilson, SM, Bradley, EH, Gude, JA, Inman, RM, Lance, NJ, Laudon, K, Nelson, AA, Ross, MS, Smucker, TD.** 2018. Wolf-livestock conflict and the effects of wolf management. *The Journal of Wildlife Management* **82**(4): 711–722. DOI: <https://dx.doi.org/10.1002/jwmg.21419>.
- De Silva, S, Srinivasan, K.** 2019. Revisiting social natures: People-elephant conflict and coexistence in Sri Lanka. *Geoforum* **102**: 182–190. DOI: <https://dx.doi.org/10.1016/j.geoforum.2019.04.004>.
- Dickman, AJ.** 2010. Complexities of conflict: The importance of considering social factors for effectively resolving human–wildlife conflict. *Animal Conservation* **13**(5): 458–466. DOI: <https://dx.doi.org/10.1111/j.1469-1795.2010.00368.x>.
- Dietsch, AM, Teel, T, Manfredo, MJ, Jonker, S, Pozzanghera, S.** 2011. *State report for Washington from the research project entitled "Understanding People in Places."* Fort Collins, CO: Colorado State University, Department of Human Dimensions of Natural Resources.
- Fletcher, R.** 2010. Neoliberal environmentalism: Towards a poststructuralist political ecology of the conservation debate. *Conservation and Society* **8**(3): 171–181. DOI: <https://dx.doi.org/10.4103/0972-4923.73806>.
- Fletcher, R.** 2017. Environmentalism unbound: Multiple governmentalities in environmental politics. *Geoforum* **85**: 311–315. DOI: <https://dx.doi.org/10.1016/j.geoforum.2017.06.009>.
- Foucault, M.** 1990. *The history of sexuality*. New York, NY: Vintage Books.
- Foucault, M.** 2003. *Society must be defended: Lectures at the Collège de France, 1975-76*. New York, NY: Picador.
- Haraway, DJ.** 2008. *When species meet*. Minneapolis, MN: University of Minnesota Press.
- Hardin, G.** 1968. The Tragedy of the commons. *Science* **162**(3859): 1243–1248. DOI: <https://dx.doi.org/10.1126/science.162.3859.1243>.
- Hennessy, E.** 2019. *On the backs of tortoises: Darwin, the Galapagos, and the fate of an evolutionary Eden*. New Haven, CT: Yale University Press.
- Hobson, K.** 2007. *Political animals? On animals as subjects in an enlarged political geography*. *Political Geography* **26**(3): 250–267. DOI: <https://dx.doi.org/10.1016/j.polgeo.2006.10.010>.
- Inslee, J.** 2019. Letter to director Susewind. Available at https://www.governor.wa.gov/sites/default/files/Letter%20to%20Director%20Susewind.pdf?utm_medium=email&utm_source=govdelivery. Accessed 7 May 2020.
- Kellert, SR, Black, M, Rush, CR, Bath, AJ.** 1996. Human culture and large carnivore conservation in North America. *Conservation Biology* **10**(4): 977–990. DOI: <https://dx.doi.org/10.1046/j.1523-1739.1996.10040977.x>.
- Kompaniyets, L, Evans, MA.** 2017. Modeling the relationship between wolf control and cattle depredation. *PLoS One* **12**(10): e0187264. DOI: <https://dx.doi.org/10.1371/journal.pone.0187264>.
- Lorimer, J.** 2017. Probiotic environmentalities: Rewilding with wolves and worms. *Theory, Culture & Society* **34**(4): 27–48. DOI: <https://dx.doi.org/10.1177/0263276417695866>.
- Lute, ML, Bump, A, Gore, ML.** 2014. Identity-driven differences in stakeholder concerns about hunting wolves. *PLoS One* **9**(12): e114460. DOI: <https://dx.doi.org/10.1371/journal.pone.0114460>.
- Lute, ML, Carter, NH.** 2020. Are we coexisting with carnivores in the American West? *Frontiers in Ecology and Evolution* **8**: 48. DOI: <https://dx.doi.org/10.3389/fevo.2020.00048>.
- Madden, F.** 2015. People and wolves in Washington: Stakeholder conflict assessment and recommendations for conflict transformation. Human-Wildlife Conflict Collaboration. Available at <https://wdfw.wa.gov/publications/01719>. Accessed 12 October 2020.
- Madden, F, McQuinn, B.** 2014. Conservation's blind spot: The case for conflict transformation in wildlife conservation. *Biological Conservation* **178**: 97–106. DOI: <https://dx.doi.org/10.1016/j.biocon.2014.07.015>.
- Manfredo, MJ, Teel, TL, Henry, KL.** 2009. Linking society and environment: A multilevel model of shifting wildlife value orientations in the Western United States. *Social Science Quarterly* **90**(2): 407–427. DOI: <https://dx.doi.org/10.1111/j.1540-6237.2009.00624.x>.
- Mansfield, B, Biermann, C, McSweeney, K, Law, J, Gallemore, C, Horner, L, Munroe, DK.** 2015. Environmental politics after nature: Conflicting socioecological futures. *Annals of the Association of American Geographers* **105**(2): 284–293.
- Margulies, JD, Karanth, KK.** 2018. The production of human-wildlife conflict: A political animal geography of encounter. *Geoforum* **95**: 153–164. DOI: <https://dx.doi.org/10.1016/j.geoforum.2018.06.011>.
- Marris, E.** 2017. A good story: Media bias in trophic cascade research in Yellowstone National Park, in

- Kareiva, P, Marvier, M, Silliman B eds., *Effective conservation science: Data not dogma*. Oxford University Press. DOI: <https://dx.doi.org/10.1093/oso/9780198808978.003.0012>.
- Martin, JV**. 2019. Between Scylla and Charybdis: Environmental governance and illegibility in the American West. *Geoforum*. DOI: <https://dx.doi.org/10.1016/j.geoforum.2019.08.015>.
- Martin, JV, Epstein, K, Anderson, RM, Charnley, S**. n.d. Coexistence praxis: The role of resource managers in wolf-livestock interactions on public lands, in press.
- Martin, JV, Epstein, K, Bergmann, N, Kroepsch, AC, Gosnell, H, Robbins, P**. 2019 Jun. Revisiting and revitalizing political ecology in the American West. *Geoforum* **107**: 227–230. DOI: <https://dx.doi.org/10.1016/j.geoforum.2019.05.006>.
- McTaggart-Cowan, I, Geist, V**. 1995. *Wildlife conservation policy*. Calgary, Canada: Brush Education.
- Mech, LD**. 1996. A new era for carnivore conservation. *Wildlife Society Bulletin (1973–2006)* **24**(3): 397–401.
- Mech, LD**. 2012. Is science in danger of sanctifying the wolf? *Biological Conservation* **150**(1): 143–149. DOI: <https://dx.doi.org/10.1016/j.biocon.2012.03.003>.
- Mech, LD**. 2017. Where can wolves live and how can we live with them? *Biological Conservation* **210**: 310–317. DOI: <https://dx.doi.org/10.1016/j.biocon.2017.04.029>.
- Miller, JRB, Schmitz, OJ**. 2019. Landscape of fear and human-predator coexistence: Applying spatial predator-prey interaction theory to understand and reduce carnivore-livestock conflict. *Biological Conservation* **236**: 464–473. DOI: <https://dx.doi.org/10.1016/j.biocon.2019.06.009>.
- Musiani, M, Paquet, PC**. 2004. The practices of wolf persecution, protection, and restoration in Canada and the United States. *BioScience* **54**(1): 50–60. DOI: [https://dx.doi.org/10.1641/0006-3568\(2004\)054\[0050:TPOWPP\]2.0.CO;2](https://dx.doi.org/10.1641/0006-3568(2004)054[0050:TPOWPP]2.0.CO;2).
- Naughton-Treves, L, Grossberg, R, Treves, A**. 2003. Paying for tolerance: Rural citizens' attitudes toward wolf depredation and compensation. *Conservation Biology* **17**(6): 1500–1511. DOI: <https://dx.doi.org/10.1111/j.1523-1739.2003.00060.x>.
- Nie, MA**. 2003. *Beyond wolves: The politics of wolf recovery and management*. Minneapolis, MN: University of Minnesota Press.
- Nightingale, AJ**. 2019. Commoning for inclusion? Commons, exclusion, property and socio-natural becomings. *International Journal of the Commons* **13**(1): 16–35. DOI: <https://dx.doi.org/10.18352/ijc.927>.
- Ostrom, E, Burger, J, Field, CB, Norgaard, RB, Policansky, D**. 1999. Revisiting the commons: Local lessons, global challenges. *Science* **284**(5412): 278–282. DOI: <https://dx.doi.org/10.1126/science.284.5412.278>.
- Peltola, T, Heikkilä, J**. 2018. Outlaws or protected? DNA, hybrids, and biopolitics in a Finnish wolf-poaching case. *Society & Animals* **26**(2): 197–216. DOI: <https://dx.doi.org/10.1163/15685306-12341509>.
- Ranganathan, S**. 2016. Global commons. *European Journal of International Law* **27**(3): 693–717. DOI: <https://dx.doi.org/10.1093/ejil/chw037>.
- Responsive Management**. 2019. *Washington residents' attitudes toward wolves and wolf management*. Harrisonburg, VA: Conducted for the Washington Department of Fish and Wildlife.
- Rinfret, S**. 2009. Controlling animals: Power, Foucault, and species management. *Society & Natural Resources* **22**(6): 571–578. DOI: <https://dx.doi.org/10.1080/08941920802029375>.
- Ripple, WJ, Beschta, RL**. 2004. Wolves and the ecology of fear: Can predation risk structure ecosystems? *BioScience* **54**(8): 755. DOI: [https://dx.doi.org/10.1641/0006-3568\(2004\)054\[0755:WATEOF\]2.0.CO;2](https://dx.doi.org/10.1641/0006-3568(2004)054[0755:WATEOF]2.0.CO;2).
- Ripple, WJ, Beschta, RL**. 2012. Trophic cascades in Yellowstone: The first 15 years after wolf reintroduction. *Biological Conservation* **145**(1): 205–213. DOI: <https://dx.doi.org/10.1016/j.biocon.2011.11.005>.
- Robbins, P**. 2006. The politics of barstool biology: Environmental knowledge and power in greater Northern Yellowstone. *Geoforum* **37**(2): 185–199. DOI: <https://dx.doi.org/10.1016/j.geoforum.2004.11.011>.
- Robbins, P**. 2012. *Lawn people: How grasses, weeds, and chemicals make us who we are*. Philadelphia, PA: Temple University Press.
- Rutherford, S**. 2007. Green governmentality: Insights and opportunities in the study of nature's rule. *Progress in Human Geography* **31**(3): 291–307. DOI: <https://dx.doi.org/10.1177/0309132507077080>.
- Rutherford, S**. 2018. The Anthropocene's animal? Coywolves as feral cotravelers. *Environment and Planning E: Nature and Space* **1**: 206–223. DOI: <https://dx.doi.org/10.1177/2514848618763250>.
- Santiago-Avila, FJ, Cornman, AM, Treves, A**. 2018. Killing wolves to prevent predation on livestock may protect one farm but harm neighbors. *PLoS One* **13**(1): e0189729. DOI: <https://dx.doi.org/10.1371/journal.pone.0189729>.
- Sheridan, TE**. 2005. Cows, condos, and the contested commons: The political ecology of ranching on the Arizona-Sonora borderlands. *Human Organization* **60**(2): 141–152. DOI: <https://dx.doi.org/10.17730/humo.60.2.991hqu9q6ryf5aav>.
- Singh, N**. 2017. Becoming a commoner: The commons as sites for affective socio-nature encounters and becomings. *Ephemera* **17**(4): 751–776.
- Slagle, K, Bruskotter, JT, Singh, AS, Schmidt, RH**. 2017. Attitudes toward predator control in the United States: 1995 and 2014. *Journal of Mammalogy* **98**(1): 7–16. DOI: <https://dx.doi.org/10.1093/jmammal/gyw144>.
- Srinivasan, K**. 2014. Caring for the collective: Biopower and agential subjectification in wildlife conservation. *Environment and Planning D: Society and Space* **32**(3): 501–517. DOI: <https://dx.doi.org/10.1068/d13101p>.

- Srinivasan, K.** 2017. Conservation biopolitics and the sustainability episteme. *Environment and Planning A* **49**(7): 1458–1476. DOI: <https://dx.doi.org/10.1177/0308518X17704198>.
- Stokland, HB.** 2020 Mar 18. Conserving wolves by transforming them? The transformative effects of technologies of government in biodiversity conservation. *Society & Animals* 1–21. DOI: <https://dx.doi.org/10.1163/15685306-00001407>.
- Sundberg, J.** 2011. Diabolic Caminos in the desert and cat fights on the Río: A posthumanist political ecology of boundary enforcement in the United States–Mexico Borderlands. *Annals of the Association of American Geographers* **101**(2): 318–336. DOI: <https://dx.doi.org/10.1080/00045608.2010.538323>.
- Treves, A, Bruskotter, J.** 2014. Tolerance for predatory wildlife. *Science* **344**(6183): 476–477. DOI: <https://dx.doi.org/10.1126/science.1252690>.
- Treves, A, Krofel, M, McManus, J.** 2016. Predator control should not be a shot in the dark. *Frontiers in Ecology and the Environment* **14**(7): 380–388. DOI: <https://dx.doi.org/10.1002/fee.1312>.
- Treves, A, Krofel, M, Ohrens, O, van Eeden, LM.** 2019. Predator control needs a standard of unbiased randomized experiments with cross-over design. *Frontiers in Ecology and Evolution* **7**: 462. DOI: <https://dx.doi.org/10.3389/fevo.2019.00462>.
- Treves, A, Naughton-Treves, L, Shelley, V.** 2013. Longitudinal analysis of attitudes toward wolves. *Conservation Biology* **27**(2): 315–323. DOI: <https://dx.doi.org/10.1111/cobi.12009>.
- van Eeden, LM, Eklund, A, Miller, JRB, López-Bao, JV, Chapron, G, Cejtin, MR, Crowther, MS, Dickman, CR, Frank, J, Krofel, M, Macdonald, DW, McManus, J, Meyer, TK, Middleton, AD, Newsome, TM, Ripple, WJ, Ritchie, EG, Schmitz, OJ, Stoner, KJ, Tourani, M, Treves, A.** 2018. Carnivore conservation needs evidence-based livestock protection. *PLoS Biology* **16**(9): e2005577. DOI: <https://dx.doi.org/10.1371/journal.pbio.2005577>.
- van Eeden, LM, Rabotyagov, SS, Kather, M, Bogezi, C, Wirsing, AJ, Marzluff, J.** 2021. Political affiliation predicts public attitudes toward gray wolf (*Canis lupus*) conservation and management. *Conservation Science and Practice* **3**(3): e387. DOI: <https://dx.doi.org/10.1111/csp2.387>.
- van Eeden, LM, Slagle, K, Crowther, MS, Dickman, CR, Newsome, TM.** 2020. Linking social identity, risk perception, and behavioral psychology to understand predator management by livestock producers. *Restoration Ecology* **28**(4): 902–910. DOI: <https://dx.doi.org/10.1111/rec.13154>.
- von Essen, E.** 2017. Whose discourse is it anyway? Understanding resistance through the rise of “barstool biology” in nature conservation. *Environmental Communication* **11**(4): 470–489. DOI: <https://dx.doi.org/10.1080/17524032.2015.1042986>.
- Wagner, JR.** 2012. Water and the commons imaginary. *Current Anthropology* **53**(5): 617–641. DOI: <https://dx.doi.org/10.1086/667622>.
- Washington Department of Fish and Wildlife.** 2017. *Wolf-livestock interaction protocol*. Olympia, WA: Washington Department of Fish and Wildlife. Available at https://wdfw.wa.gov/sites/default/files/2019-02/final_protocol_for_wolf-livestock_interactions_jun012017.pdf. Accessed 12 October 2020.
- Washington Department of Fish and Wildlife, Confederated Tribes of the Colville Reservation, Spokane Tribe of Indians, USDA-APHIS Wildlife Services, U. S. Fish and Wildlife Service.** 2021. Washington Gray Wolf Conservation and Management. 2020 *Annual Report*. Ellensburg, WA: Washington Department of Fish and Wildlife.
- Whatmore, S.** 2002. *Hybrid geographies: Natures, cultures, spaces*. London, UK: SAGE Publications.
- Wielgus, RB, Peebles, KA.** 2014. Effects of wolf mortality on livestock depredations. *PLoS One* **9**(12): e113505. DOI: <https://dx.doi.org/10.1371/journal.pone.0113505>.
- Wiles, G, Allen, H, Hayes, G.** 2011. *Wolf Conservation and Management Plan*. Washington Department of Fish and Wildlife. Available at <https://wdfw.wa.gov/publications/00001/wdfw00001.pdf>. Accessed 16 June 2021.
- Wilson, MA.** 1997. The wolf in Yellowstone: Science, symbol, or politics? Deconstructing the conflict between environmentalism and wise use. *Society & Natural Resources* **10**(5): 453–468. DOI: <https://dx.doi.org/10.1080/08941929709381044>.
- Worster, D.** 1993. *The wealth of nature: Environmental history and the ecological imagination*. New York, NY: Oxford University Press.

How to cite this article: Anderson, RM. 2021. Killing for the common good? The (bio)politics of wolf management in Washington State. *Elementa: Science of the Anthropocene* 9(1). DOI: <https://doi.org/10.1525/elementa.2020.00179>

Domain Editor-in-Chief: Alastair Iles, University of California, Berkeley, CA, USA

Guest Editor: Jeffrey Martin, University of California, Berkeley, CA, USA

Knowledge Domain: Sustainability Transitions

Part of an Elementa Special Feature: Commoning in Rural North America: Conflict, conservation, and collaboration in more-than-human landscapes

Published: June 24, 2021 **Accepted:** May 27, 2021 **Submitted:** December 10, 2020

Copyright: © 2021 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.



Elem Sci Anth is a peer-reviewed open access journal published by University of California Press.

OPEN ACCESS The Open Access icon, which is a stylized padlock with an open keyhole.