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How Wildlife Management Agencies and Hunting Organizations Frame Ethical Hunting in the United States

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Given that many wildlife management agencies consider hunting to be central to wildlife conservation, a growing body of research describes ethical hunting using characterization framing (created by outsiders). This article describes an identity frame (created by insiders) of ethical hunting in the United States, based on analysis of hunter education manuals and official statements of hunting nongovernmental organizations (NGOs). Similar themes permeated texts from both sources (e.g., obeying law, fair chase). NGOs, however, placed significantly more emphasis on being skilled (15% vs. 6%) and being motivated by experiencing nature (10% vs. 2%), whereas government agencies placed significantly more emphasis on respecting landowners (28% vs. 15%). Agencies may frame ethical hunting as more socially interdependent and rule abiding because they perceive a need to prioritize government authority (law) and property owner interests. These findings highlight a need for identity frames focusing on how hunting impacts biodiversity and humane treatment of animals.

Keywords communication, conservation biology, ethics, fair chase, framing, hunting, identity

Introduction

In the United States and Canada, many wildlife management agencies treat hunting as an essential tool for wildlife conservation rooted in the North American Model of wildlife management (NAM) (Bruskotter, Enzler, & Treves, 2011; Geist, Mahoney, & Organ, 2001). The NAM's basic tenets (e.g., prohibiting wildlife related commerce, hunting opportunity "for all," non-frivolous hunting) have become popular since 2000 within professional societies and agencies associated with wildlife management (Nelson, Vucetich, Paquet, & Bump, 2011). The compelling, if partial, narrative associated with the NAM describes hunters as saving wildlife by eliminating market hunting and funding conservation (e.g., acquisition of protected areas) through self-taxation. Market hunting in other locations, however, still threatens high profile wildlife species, such as rhinos (*Rhinocerotidae*) and tigers (*Panthera tigris*) (Linkie et al., 2003; Milner-Gulland & Leader-Williams, 1992), in the same way that market hunting previously threatened most game species and many migratory birds in North America. Bushmeat hunting also threatens wildlife conservation,

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particularly in the tropics (Bennett et al., 2002; Brashares et al., 2004; Fa, Peres, & Meeuwig, 2002; Loibooki, Hofer, Campbell, & East, 2002). Negative impacts of non-recreational hunting on wildlife conservation appear to be driven solely by economics, but wolf (*Canis lupis*) poaching in wealthy areas of Europe and the United States demonstrate that other factors including morality may play a role (Liberg et al., 2012; Treves, Naughton Treves, & Shelley, 2013). Consideration of moral aspects of hunting may be central to understanding the conservation role played by this activity (Nelson & Millenbah, 2009).

Despite persistent calls for discussion of moral aspects of hunting and the broad geographic, ecological, and historic impacts of hunting on wildlife conservation, little serious work has addressed wildlife ethics (Nelson & Millenbah, 2009). Both sociology and ethics are needed to start the conversation, as sociology describes the ethical propositions and ethics analyzes them using rules of formal logic (Nelson & Vucetich, 2012). In some ways, ethics is ahead of sociology because several scholars have explored the morality of hunting in essays using formal logic to determine when hunting would be morally permissible. Those essays, however, are grounded in assumed ethical propositions rather than propositions gleaned from empirical assessment of views espoused by the hunting community or non-hunting groups.

Scholars have evaluated the morality of hunting using different ethical propositions. Some articles describe hunting as unethical when it promotes a social tendency to objectify women (Kalof, Fitzgerald, & Baralt, 2004), is driven by indefensible motives including making money or getting a thrill (Kheel, 1995; Peterson, 2004), violates animal rights (Regan, 1983), or harms sentient beings (Singer, 1975). Conversely, hunting has been characterized as ethical when it contributes to conservation (Geist et al., 2001), feeds humans with less environmental impact or animal deaths than farming vegetables and grains (Cahoone, 2009), or helps limit the commodification of nature (Øian, 2013; Peterson, Hansen, Peterson, & Peterson, 2011).

These philosophical articles can hardly be faulted for being grounded in ethical propositions attributed to stakeholders given that few, if any, studies empirically assess the prescriptive claims made by those engaged in or opposed to hunting. This article helps to address this gap in understanding ethical hunting by evaluating how hunter education training materials and statements about ethical hunting published by hunting nongovernmental organizations (NGOs) in the United States frame ethical hunting. These sources of framing for ethical hunting were chosen for two reasons: (a) they are formal sources of socialization (process of disseminating norms and ideology) for hunters and (b) they provide an opportunity to compare ethics between groups with different goals. In regard to the latter, one may hypothesize that state wildlife management agencies, which are regulatory agencies, would be more likely than hunting NGOs to focus on ethics tied to rules about harvesting game and accessing private lands.

Methods

This study was conducted using frame analysis (Dewulf et al., 2009). Frames are communicative structures that select and emphasize reality (Dewulf et al., 2009). For example, framing unwanted interactions between humans and wildlife as "human–wildlife conflict" is more likely to emphasize a reality of mutual antagonism between humans and wildlife than framing the same interactions as "human–wildlife coexistence" (Peterson, Birckhead, Leong, Peterson, & Peterson, 2010). Characterization frames are shorthand ways of describing and judging others, identity frames reflect how individuals describe themselves, and power frames describe status and sources of this status (Lewicki, 2002). Although

ethical hunting has received limited attention with a frame analysis approach, most articles reviewed here align more with characterization framing than identity framing (e.g., Cahoone, 2009; Kalof et al., 2004; Regan, 1983; Singer, 1975). Identity frames, however, are probably more important for wildlife managers to consider than characterization frames within the context of hunting ethics because they reflect moral propositions made by those who wildlife managers and conservationists hope to influence (Vermeulen & Sheil, 2007).

Prescriptive statements about hunting published by hunting NGOs (Boone and Crockett Club, National Wild Turkey Foundation, National Rifle Association, Pope and Young, Pheasants Forever, Professional Bowhunter's Society, National Shooting Sports Foundation) and in hunter education manuals used in each U.S. state were the texts analyzed in this article. It is possible that other local, national, or international hunting NGOs have texts describing ethical hunting that are not accessible online, and evaluation of such texts may provide additional insight relevant to local contexts. Most states offer hunter education courses online via a partnership with Kalkomey Enterprises, and the transition to online service largely provided through one company has led to some homogenization of courses, although some state level differences remain.

Analysis began with a qualitative assessment of passages from each text that were most relevant to framing ethical hunting (Johnston, 1995). This resulted in a compilation of chapters from hunter education manuals typically labeled "Hunter responsibility" or "Being a safe, responsible, and ethical hunter," and prevented specific passages from being viewed without important context. All texts were reviewed in 2013, although publication dates for texts being used in different states varied from the early 2000s to 2012. A set of descriptive themes was then established to guide coding (Chong & Druckman, 2007) and this set included 12 themes listed in Table 1. Instances of each theme were documented

Table 1

Comparison of how state wildlife management agencies in the United States and hunting NGOs frame ethical hunting

Hunting theme	State agencies $\%$ $(n = 1381)$	NGOs % $(n = 52)$	Chi-square	p	Phi (φ)
Obey the law	15	12	.42	.341	.017
Respect non-hunters	18	14	.71	.262	.022
Respect landowners	28	15	4.10	.026	.054
Respect other hunters	6	2	1.71	.153	.034
Be safe	12	12	.01	.590	.002
Protect wildlife habitat	7	12	1.66	.154	.034
Be humane to animals (e.g., clean kill)	7	10	.62	.290	.020
Follow fair chase	6	8	.36	.355	.015
Share hunting with others	4	4	.02	.627	.003
Be motivated by nature	2	10	18.42	.002	.113
Be skilled	6	15	8.64	.010	.078
Use meat	3	8	2.83	.092	.044

Note. Bold text indicates significant differences.

as passages from all texts were coded. A research technician recoded all prescriptive statements from hunting NGOs and 100 randomly selected statements from the state hunters education course materials to facilitate intercoder reliability testing using Cohen's kappa (κ ; Krippendorff, 2004). Based on conventions used in evaluating intercoder agreement (Landis & Koch, 1977), reliability was extremely high ($\kappa > .922$, p < .001, n = 152) for all themes except "Be humane to animals" ($\kappa = .852$, p < .001, n = 152) that still had almost perfect agreement, and "Follow fair chase" ($\kappa = .745$, p < .001, n = 152) that also had substantial agreement. Given that agreement levels were so high, the original dataset was analyzed without calibrating and recoding. In addition to reporting frequencies, chisquare tests were used for comparing frequencies of each theme among texts derived from state agencies to those from hunting NGOs, and effect sizes were calculated using Phi coefficients (Vaske, 2008). The latter comparisons provided insights into power frames because state agencies and hunting NGOs have different sources of power and status that may be reflected in how they frame ethical hunting.

Results

The 50 hunter education manuals included 1,381 ethical statements, and the position statements from seven hunting NGOs included 52 ethical statements. All themes (Table 1) were found within both NGO texts and hunter education manuals. Three types of statements were grouped in the *obey the law* theme—those demanding ethical hunters to obey the law (e.g., "abide by game laws and regulations"), requiring hunters to report violations of the law (e.g., "report all game violations") (Kalkomey Enterprises, 2012a, p. 69), and requiring hunters to accept responsibility when caught violating hunting norms or laws (e.g., "takes full responsibility for his or her actions . . . allowing his or her actions to be judged by others and accepting either reward or punishment") (Kalkomey Enterprises, 2008, p. 10).

Similarly, two types of statements were grouped in the *respect non-hunters* theme—those demanding that hunters respect local customs (e.g., "respect the customs of the locale where the hunting occurs") (Boone and Crockett Club, 2013), and suggesting that ethical hunters should hide less socially acceptable evidence of hunting from non-hunters (e.g., "refrain from taking graphic photographs of the kill and from vividly describing the kill while within earshot of non-hunters") (Kalkomey Enterprises, 2012a, p. 70). "Ask landowners for permission to hunt" was representative of text coded as *respect landowners* (Kalkomey Enterprises, 2012a, p. 70). "Refrain from interfering with another's hunt" typified the *respect other hunters* theme (Kalkomey Enterprises, 2012a, p. 69). "Follow safe firearm handling practices, and insist your companions do the same" was representative of the *be safe* theme (Kalkomey Enterprises, 2012b, p. 66). Text coded as *share hunting with others* was typically direct as in the case of the Wisconsin hunter education manual that advocated "share your knowledge and skills with others" (Kalkomey Enterprises, 2012b, p. 66).

Among themes focused on how hunters should interact with the land and wildlife, "work for wild turkey conservation" was a typical *protect wildlife habitat* framing (National Wild Turkey Federation, 2013). "Strive for a quick, clean kill" was the most common text coded as *be humane to animals* (Kalkomey Enterprises, 2012b, p. 66). "Adhere to fair chase rules" was the most common *follow fair chase* framing (Kalkomey Enterprises, 2012a, p. 69). Two types of statements were included in the *be motivated by nature* theme—those directing hunters not be influenced by other things including excitement (e.g., "never lose self-control"; http://homestudy.ihea.com/hunterethics/03respons_list.htm), and suggesting that hunters should be motivated by natural experiences (e.g., "these tenets are intended to

enhance the hunter's experience of the relationship between predator and prey") (Boone and Crockett Club, 2013). Only text from NGOs advocated being motivated specifically by relationships with nature. Text from the hunters pledge in many hunter education manuals, "I pledge to develop my hunting and shooting skills," typified the *be skilled* theme (Kalkomey Enterprises, 2013). The *use meat* theme was typified by statements such as "ensure that meat and usable parts are not wasted" (Kalkomey Enterprises, 2012b, p. 66).

Similar themes permeated texts from both groups, including *obeying the law, being safe, protecting wildlife habitat, being humane*, and *fair chase* (Table 1). There were differences between groups for the other themes, although the phi effect sizes were relatively small or minimal (Vaske, 2008; Table 1). NGOs placed significantly more emphasis on being skilled and being motivated by experiencing nature, whereas state agencies placed significantly more emphasis on respecting landowners and their property (Table 1). These findings suggest that NGOs frame ethical hunting as being somewhat more autonomous and nature centered, whereas agencies frame ethical hunting as being somewhat more socially interdependent and rule abiding.

Discussion

Differences between how state wildlife management agencies (through hunter education training) and hunting NGOs frame ethical hunting appear to reflect the political demands on agencies as much or more than the regulatory role of these agencies. Specifically, agencies were not more likely to advocate obeying the law than hunting NGOs, but were twice as likely to make prescriptive statements about detailed ways that hunters could show respect to landowners. The somewhat myopic focus on respecting landowners in state agency framing of ethical hunting may reflect efforts to protect agency status. The NAM (Bruskotter et al., 2011; Geist, 1988) places state agencies in a precarious situation with presumed authority to regulate wildlife and human interactions with wildlife on private land even though the agency may not have authority to access the land. This creates political pressure to appease landowners, even for wildlife law enforcement personnel (Falcone, 2004). Furthermore, private landowners have proven successful in stopping some forms of hunting (e.g., hunting with dogs; Chitwood, Peterson, & Deperno, 2011), and revenues from hunting licenses are a central part of state wildlife management agency operating budgets that are typically used for matching and thereby receiving federal funds from excise taxes on guns and ammunition (Hutchins, Eves, & Mittermeier, 2009).

Similarly, the stronger emphasis on skill and being motivated by nature among hunting NGOs may occur because these organizations recruit members based on skills and relationships with nature. For example, members of the National Shooting Sports Foundation are interested in shooting skills, members of Pope and Young (a bow hunting group that maintains trophy records) are interested in bow hunting skills, and members of the National Wild Turkey Foundation are interested in experiencing turkeys in the wild.

Similar to what Nelson and Millenbah (2009) suggested, humane treatment for animals was mentioned infrequently, and there was a total lack of prescriptive language addressing when harvesting animals is moral. Identity framing of ethical hunting among hunting NGOs and state agencies represents a conspicuous split from characterization frames where animal rights and humane treatment of animals are front and center (Kalof et al., 2004; Kheel, 1995; Peterson, 2004; Regan, 1983). Admittedly, every topic cannot be addressed in the relatively short discussions of ethics analyzed here, but the lack of attention is conspicuous alongside a host of detailed statements about exactly how hunters should interact ethically with landowners. Not only was humane treatment of animals infrequently prescribed, it

was typically described as striving for a clean kill. Absent an explanation for why the clean kill was demanded, such statements may be just as appropriately characterized as advocacy for being skilled, making humane treatment of animals almost non-existent in the materials analyzed here.

If animals have moral standing, they probably deserve something more than a clean death. Scholars suggest respect and humility toward game may not only be an ethical responsibility, but may be key to generating social support for hunting (Dizard, 2003; Nelson & Millenbah, 2009). Advocacy of using meat, although mentioned infrequently, especially in hunters' education materials, reflects a potential first step toward addressing the topic of when hunting is ethically justified. The hunting community, however, probably needs to foster a discussion of these topics before being able to address them with the same detail and certainty as interactions with landowners. Adequately addressing issues including trophy hunting, canned hunting, the use of dogs to track, and if necessary, retrieve wounded animals, whether to hunt lactating mammals, setting standards for weapon choice, and considerations for hunting in extreme weather conditions will be difficult without addressing questions about how game animals should be treated and in what contexts harvesting animals is justified.

This article found limited evidence from within hunting NGOs and state wildlife management agencies, as measured through their literature about themselves, that hunters or hunting should be committed to biodiversity preservation in general or wildlife conservation in general. Ethical framing explicitly linking hunting decisions to biodiversity impacts did not exist in the data analyzed here. Although protecting wildlife habitat was a theme (7% of statements among agencies, 12% among NGOs), the details typically focused on littering, off-road driving, and supporting conservation groups, but not direct impacts of hunting itself. The lack of statements prescribing biodiversity conservation through hunting does not reflect such a relationship being impossible. Hunting ethics could address how decisions to harvest animals might relate to overpopulated species or threatened species. For example, high white-tailed deer (Odocoileus virginianus) densities can threaten forest regeneration, change plant species assemblages, and ultimately reduce habitat quality for small mammals and birds (Horsley, Stout, & DeCalesta, 2003). Do ethical hunters have a responsibility to harvest more animals in such contexts? Conversely, many species are legally hunted when their populations are undergoing catastrophic declines. Lesser prairie chickens (Tympanuchus pallidicinctus), for example, were hunted for decades when populations were headed toward extirpation in many regions (Robbins, 2013; Taylor & Guthery, 1980). Should ethical hunters avoid hunting such species even though the Endangered Species Act (1973) has failed to provide protection for various reasons? Given that regulatory tools impacting hunter harvests (e.g., bag limits) often have little effect or counterintuitive effects on actual harvest levels (Peterson, 2001), intrinsically motivated decisions to harvest more or fewer animals remain critical to successful wildlife management.

Although more explicit consideration of how wildlife should be harvested and what contexts make hunting morally justified in hunter education courses and official statements from hunting NGOs may seem unnecessarily controversial, the practice could lend legitimacy to hunting as it becomes more anachronistic. The prevalence of prescriptive statements focusing on respect for people (e.g., landowners, other hunters, non-hunters) suggests a blending of respect for persons and respect for nature ethics (Taylor, 1981) that may provide fertile ground for discussion about how to integrate the morality of harvesting animals into ethics promulgated through hunter education efforts. This is particularly

relevant given wildlife professionals' affinity for Aldo Leopold and his Land Ethic that focuses on expanding the sphere of entities deemed worthy of respect and consideration from humans to wildlife and the land (Leopold, 1949; Nelson & Millenbah, 2009).

References

- Bennett, E. L., Milner-Gulland, E., Bakarr, M., Eves, H. E., Robinson, J. G., & Wilkie, D. S. (2002). Hunting the world's wildlife to extinction. *Oryx*, *36*, 328–329.
- Boone and Crockett Club. (2013, November 18). *Fair chase statement*. Retrieved from http://www.boone-crockett.org/huntingEthics/ethics_fairchase.asp?area=huntingEthics
- Brashares, J. S., Arcese, P., Sam, M. K., Coppolillo, P. B., Sinclair, A. R., & Balmford, A. (2004). Bushmeat hunting, wildlife declines, and fish supply in West Africa. *Science*, 306, 1180–1183.
- Bruskotter, J. T., Enzler, S. A., & Treves, A. (2011). Rescuing wolves from politics: Wildlife as a public trust resource. *Science*, 333, 1828–1829.
- Cahoone, L. (2009). Hunting as a moral good. *Environmental Values*, 18, 67–89.
- Chitwood, M. C., Peterson, M. N., & Deperno, C. S. (2011). Assessing dog hunter identity in coastal North Carolina. *Human Dimensions of Wildlife*, *16*, 128–141.
- Chong, D., & Druckman, J. N. (2007). Framing theory. Annual Review of Political Science, 10, 103–126.
- Dewulf, A., Gray, B., Putnam, L., Lewicki, R., Aarts, N., Bouwen, R., & van Woerkum, C. (2009). Disentangling approaches to framing in conflict and negotiation research: A meta-paradigmatic perspective. *Human Relations*, 62, 155–193.
- Dizard, J. E. (2003). *Mortal stakes: Hunters and hunting in contemporary America*. Boston, MA: University of Massachusetts Press.
- Fa, J. E., Peres, C. A., & Meeuwig, J. (2002). Bushmeat exploitation in tropical forests: An intercontinental comparison. Conservation Biology, 16, 232–237.
- Falcone, D. (2004). America's conservation police: Agencies in transition. *Policing: An International Journal of Police Strategies & Management*, 27, 56–66.
- Geist, V. (1988). How markets in wildlife meat and parts, and the sale of hunting privileges, jeopardize wildlife conservation. *Conservation Biology*, 2, 15–26.
- Geist, V., Mahoney, S. P., & Organ, J. F. (2001). Why hunting has defined the North American model of wildlife conservation. *Transactions of the North American Wildlife and Natural Resources Conference*, 66, 175–185.
- Horsley, S. B., Stout, S. L., & DeCalesta, D. S. (2003). White-tailed deer impact on the vegetation dynamics of a northern hardwood forest. *Ecological Applications*, *13*, 98–118.
- Hutchins, M., Eves, H. E., & Mittermeier, C. G. (2009). Fueling the conservation engine: Where will the money come from to drive fish and wildlife management and conservation? In M. J. Manfredo, J. J. Vaske, P. J. Brown, D. J. Decker, & E. A. Duke (Eds.), Wildlife and society: The science of human dimensions (pp. 184–197). Washington, DC: Island Press.
- Johnston, H. (1995). A methodology for frame analysis: From discourse to cognitive schemata. *Social Movements and Culture, 4*, 217–246.
- Kalkomey Enterprises. (2008). *Today's hunter Montana: A guide to hunting responsibly and safely*. Dallas, TX: Kalkomey Enterprises.
- Kalkomey Enterprises. (2012a). *Today's hunter in the Northeast: A guide to hunting responsibly and safely*. Dallas, TX: Kalkomey Enterprises.
- Kalkomey Enterprises. (2012b). Today's hunter: A guide to hunting responsibly and safely, Wisconsin. Dallas, TX: Kalkomey Enterprises.
- Kalkomey Enterprises. (2013). *An ethical hunter's code, Montana hunter's ed course*. Retrieved from http://www.hunter-ed.com/montana/studyGuide/An-Ethical-Hunters-Code/201027_700048132
- Kalof, L., Fitzgerald, A., & Baralt, L. (2004). Animals, women, and weapons: Blurred sexual boundaries in the discourse of sport hunting. *Society & Animals*, 12, 237–251.

- Kheel, M. (1995). License to kill: An ecofeminist critique of hunters' discourse. In C. J. Adams & J. Donovan (Eds.), *Animals and women: Feminist theoretical explorations* (pp. 85–125). Durham, NC: Duke University Press.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. Thousand Oaks, CA: Sage.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33, 159–174.
- Leopold, A. (1949). A sand county almanac and sketches here and there. London, UK: Oxford University Press.
- Lewicki, R. (2002). Making sense of intractable environmental conflicts: Concepts and cases. Washington, DC: Island Press.
- Liberg, O., Chapron, G., Wabakken, P., Pedersen, H. C., Hobbs, N. T., & Sand, H. (2012). Shoot, shovel and shut up: Cryptic poaching slows restoration of a large carnivore in Europe. *Proceedings of the Royal Society B: Biological Sciences*, 279, 910–915.
- Linkie, M., Martyr, D. J., Holden, J., Yanuar, A., Hartana, A. T., Sugardjito, J., & Leader-Williams, N. (2003). Habitat destruction and poaching threaten the Sumatran tiger in Kerinci Seblat National Park, Sumatra. Oryx, 37, 41–48.
- Loibooki, M., Hofer, H., Campbell, K. L., & East, M. L. (2002). Bushmeat hunting by communities adjacent to the Serengeti National Park, Tanzania: The importance of livestock ownership and alternative sources of protein and income. *Environmental Conservation*, 29, 391–398.
- Milner-Gulland, E., & Leader-Williams, N. (1992). A model of incentives for the illegal exploitation of black rhinos and elephants: Poaching pays in Luangwa Valley, Zambia. *Journal of Applied Ecology*, 29, 388–401.
- National Wild Turkey Federation (Producer). (2013). *NWTF's turkey hunters' code of conduct*. Retrieved from http://www.nwtf.org/tips_adventures/tips.php?id=11238
- Nelson, M. P., & Millenbah, K. F. (2009). The ethics of hunting: Can we have our animal ethics and eat them too? *The Wildlife Professional*, *3*, 33–34.
- Nelson, M. P., & Vucetich, J. A. (2012). Environmental ethics for wildlife management. In D. J. Decker, S. J. Riley, & W. F. Siemer (Eds.), *Human dimensions of wildlife management* (pp. 223–237). Baltimore, MD: Johns Hopkins University Press.
- Nelson, M. P., Vucetich, J. A., Paquet, P. C., & Bump, J. K. (2011). An inadequate construct? North American model: What's flawed, what's missing, what's needed. *The Wildlife Professional*, 5, 58–60.
- Øian, H. (2013). Wilderness tourism and the moralities of commitment: Hunting and angling as modes of engaging with the natures and animals of rural landscapes in Norway. *Journal of Rural Studies*, 32, 177–185.
- Peterson, M. J. (2001). Northern bobwhite and scaled quail abundance and hunting regulation: A Texas example. *Journal of Wildlife Management*, 65, 828–837.
- Peterson, M. N. (2004). An approach for demonstrating the social legitimacy of hunting. *Wildlife Society Bulletin*, 32, 310–321.
- Peterson, M. N., Birckhead, J. L., Leong, K., Peterson, M. J., & Peterson, T. R. (2010). Rearticulating the myth of human–wildlife conflict. *Conservation Letters*, *3*, 74–82.
- Peterson, M. N., Hansen, H. P., Peterson, M. J., & Peterson, T. R. (2011). How hunting strengthens social awareness of coupled human-natural systems. *Wildlife Biology in Practice*, *6*, 127–143.
- Regan, T. (1983). The case for animal rights. Berkeley, CA: University of California Press.
- Robbins, K. (2013). Lesser conservation: The US Fish & Wildlife Service proposes threatened listing for the lesser prairie-chicken, then guts it. *Trends, ABA Section of Environment, Energy, and Resources*. Retrieved from http://ssrn.com/abstract=2327107
- Singer, P. (1975). *Animal liberation: A new ethics for our treatment of animals*. New York, NY: Random House.
- Taylor, M. A., & Guthery, F. S. (1980). *Status, ecology, and management of the lesser prairie chicken*. Fort Collins, CO: USDA Forest Service Rocky Mountain Forest and Range Experiment Station.

- Taylor, P. W. (1981). The ethics of respect for nature. *Environmental Ethics*, 3, 197–218.
- Treves, A., Naughton Treves, L., & Shelley, V. (2013). Longitudinal analysis of attitudes toward wolves. *Conservation Biology*, 27, 315–323.
- Vaske, J. (2008). Survey research and analysis: Applications in parks, recreation and human dimensions. State College, PA: Venture.
- Vermeulen, S., & Sheil, D. (2007). Partnerships for tropical conservation. *Oryx*, 41, 434–440.