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# Bringing Ethics to Wild Lives: Shaping Public Policy for Barred and Northern Spotted Owls

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## Abstract

Ethics reviews are not part of environmental policy or wildlife management in the United States. This changed when, for the first time, the US Fish and Wildlife Service conducted such a review with respect to the barred and northern spotted owls. Spotted owls are endangered throughout their range by a variety of anthropogenic and natural forces. The interspecific competition between barred and spotted owls is a key factor second only to habitat destruction. A proposed lethal experiment to remove barred owls raised ethical concerns among wildlife agencies, citizens, and advocacy groups. Seeking to better understand these concerns, the Service created the Barred Owl Stakeholder Group. Using an innovative method and instrument in the form of an ethics-based policy dialogue and an ethics brief, the stakeholder group explored the ethical dimensions of the removal experiment. This process holds lessons for how public policy can bring ethics to bear on wild lives.

## Keywords

animal ethics – ethics brief – ethics-based policy dialogue – environmental policy – wildlife management – barred owl – northern spotted owl

## Introduction

How we ought to coexist with wildlife—a core ethical question of human-animal studies (a.k.a. animal studies, anthrozoology)—is an increasing focus of public debate (Donaldson & Kymlicka, 2011; Lynn, 2007; Lynn, 1998). We

witness this with respect to the protection of endangered and iconic species (e.g., wolves), in debates over the place of wildlife in urban landscapes (e.g., coyotes), and controversies over the interaction of companion and wild animals (e.g., outdoor cats and native wildlife) (Hadidian, Fox, & Lynn, 2006; Lynn, 2010; Lynn, 2016; Marra & Santella, 2016).

In those arenas where people form close bonds with nonhuman animals (hereafter, animal or animals), and in those where the instrumental abuses are readily observed, policy initiatives have made some gains for animal welfare. This is true in terms of humane laws protecting companion animals, as well as legislation governing animals used in agriculture, research, and entertainment. Perhaps the most well-known is the companion animal law's effort to shift the discourse away from the human ownership of property to humane guardianship of non-human persons (Pacelle, 2016; Smith, 2012).

When it comes to wildlife, however, there is little change. Wild animals continue to be managed as populations for ecological and economic reasons, the well-being of the individuals constituting these populations is largely ignored, and ethical concerns about both individuals and populations are marginalized (Bekoff, 2013). This is because wildlife is valued primarily as functional units of ecosystems and commodities for humans to use, something reflected in the conservation discourse of government agencies, environmental non-profits, and international institutions (Decker & Goff, 1987; Leopold, 1986).

The proximate roots of this lay in the conservation movement of the early nineteenth century. This movement sought to use "natural resources" for the benefit of human society as a whole. In the context of the Gilded Age of robber barons, this was a step forward in environmental and social policy (Andrews, 2006a).

Even so, little thought was given to how wild lives are instrumentalized as mere things providing goods or services to humankind. That attitude ultimately grows in a culture of "human exceptionalism"—the belief that humans are unique and special beyond all other creatures or living systems. The term has many synonyms and variations, chief of which are dominionism (the belief that the earth is ours to use as we see fit), anthropocentrism (only human beings have moral value and are the only lives that count), and speciesism (we are not ethically accountable for our treatment of other creatures and can thus think of and treat them with prejudice). It matters not a great deal that the rationalization for this results from some people believing humans are made in the image of God, others holding that our technical know-how makes humanity the rightful rulers of the planet, and still others asserting a biological chauvinism that vaults us to the top of the evolutionary order. These and other beliefs serve to facilitate the instrumentalization of wildlife (Lynn, 2004a; Peterson, 2013; Plumwood, 2000; White, 1968).

The institutions and associated values that developed out of this conservation movement are still with us today. These have been reinforced by new paradigms of conservation such as “new conservation” and “social nature.” New conservation doubles down on the human exceptionalism of traditional conservation, even as it prioritizes human needs among the world’s poorest. In effect, it reorients conservation towards social justice and away from the protection of biodiversity or wildlife (Shellenberger & Nordhaus, 2004; Soule, 2014). Social nature uses metaphysical claims from early Marxism to deny the existence of a natural world and offers an alternative “materialist” ontology. It then reduces the natural world down to social processes that construct what those blinded by false consciousness call “nature” (Braun, 2001; Soule & Lease, 1995; Steiner, 2013).

The emphasis on social justice for the world’s most marginalized is commendable. Moreover, humanity’s varied understandings of nature are perforce culturally and socially constituted. But as with traditional conservation, humanity’s multifarious impacts on wildlife—habitat destruction, hunting and trapping, poisoning, pollution, invasive species, declining abundance, species extinction—is once again normatively framed almost exclusively in terms of human well-being, which is then encoded in the environmental and social policies that drive wildlife management.

What this encoding ignores, of course, is the underlying current of moral dispute in public policy over the moral standing of wild (and domestic) animals (Lavigne & Menon, 2006; Lynn, 2006). This dispute is rooted in the indisputable sentience (i.e., feeling, awareness), sapience (i.e., thinking, self-awareness), and sociality (i.e., play, familial care, and reciprocity) displayed by a wide array of non-human animals (Bekoff & Pierce, 2009; Bekoff, Allen, & Burghardt, 2002). This is something Darwin freely acknowledges when discussing the moral and social sentiments that form a punctuated continuum between human and animal agency. It is why humans and non-human beings form blended, “mixed [interspecies] communities” (Midgley, 1998). It is this agency of people and other animals that is the basis for their intrinsic value, their membership in both moral and political communities, and the reason for debates over the moral and political “rights” of animals (Garner, 2004).

One instance of this dispute over the moral standing and significance of animals in environmental policy emerged with a proposed experiment to remove barred owls for the benefit of the northern spotted owl. As discussed below, these spotted owls are increasingly endangered primarily because of habitat loss, followed by competition with in-migrating barred owls. As of this writing, an experimental cull of barred owls is ongoing in four test zones in Washington, Oregon, and California. The hypothesis is that removing barred

owls in these zones will help the northern spotted owl maintain its territory and persist in the wild.

Prior to the start of the experiment, The United States Fish and Wildlife Service (USFWS) conducted an environmental impact statement (EIS) which, for the first time, included an ethics component. To the best of this author's knowledge, it was the first time the USFWS expressly incorporated ethics into its decision-making process. It was also the first time that ethics was formally integrated with an environmental review mandated by the National Environmental Policy Act. And it marked the creation of a new policy tool, the ethics brief.<sup>1</sup>

### Owl versus Owl

The northern spotted owl (*Strix occidentalis caurina*, hereafter, "spotted owl" unless noted otherwise) is a medium-sized, nocturnal predator of small mammals like flying squirrels, wood rats, and voles. It prefers the old-growth (and similar) forest habitats of the Pacific Northwest along the Coastal and Cascade Mountain Ranges. The bird's natural range runs south from British Columbia, through Washington and Oregon, and into California (Figure 1). Generally monogamous, the biotic potential of spotted owls is low. Adults have a high survival rate and a relatively long lifespan, but they also have a low birth rate as well as survival rate for juvenile birds. This is termed low fecundity, and in conjunction with the loss of habitat due to extensive logging, has contributed to a rapid decline in the owl's population. So much so that the species may go extinct in the wild in both Canada and the United States (NatureServe Explorer, 2011a; U.S. Fish and Wildlife Service, 2008, pp. 43-48).

Hotly contested debates over the forests of the Pacific northwest have characterized both the American and Canadian political landscapes from the 1980s onward. These debates circulated around a paradigm shift from commodity to sustainable forestry, maximum yield to ecosystem management, and the rising economic and social importance of non-commodity forest values. The spotted owl became a particularly contested symbol in these regards. For some, spotted owls were variously associated with preserving old growth forests, maintaining essential habitat for endangered species, protecting biodiversity, and transitioning to sustainable forestry practices. Others saw the owl as a Trojan horse for locking up timber resources, an excuse to grab land for recreational wilderness, an intrusion of government bureaucracy into the affairs of local

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1 Several subsequent sections of this article draw from a report by the author to the US Fish and Wildlife Service (Lynn, 2012).

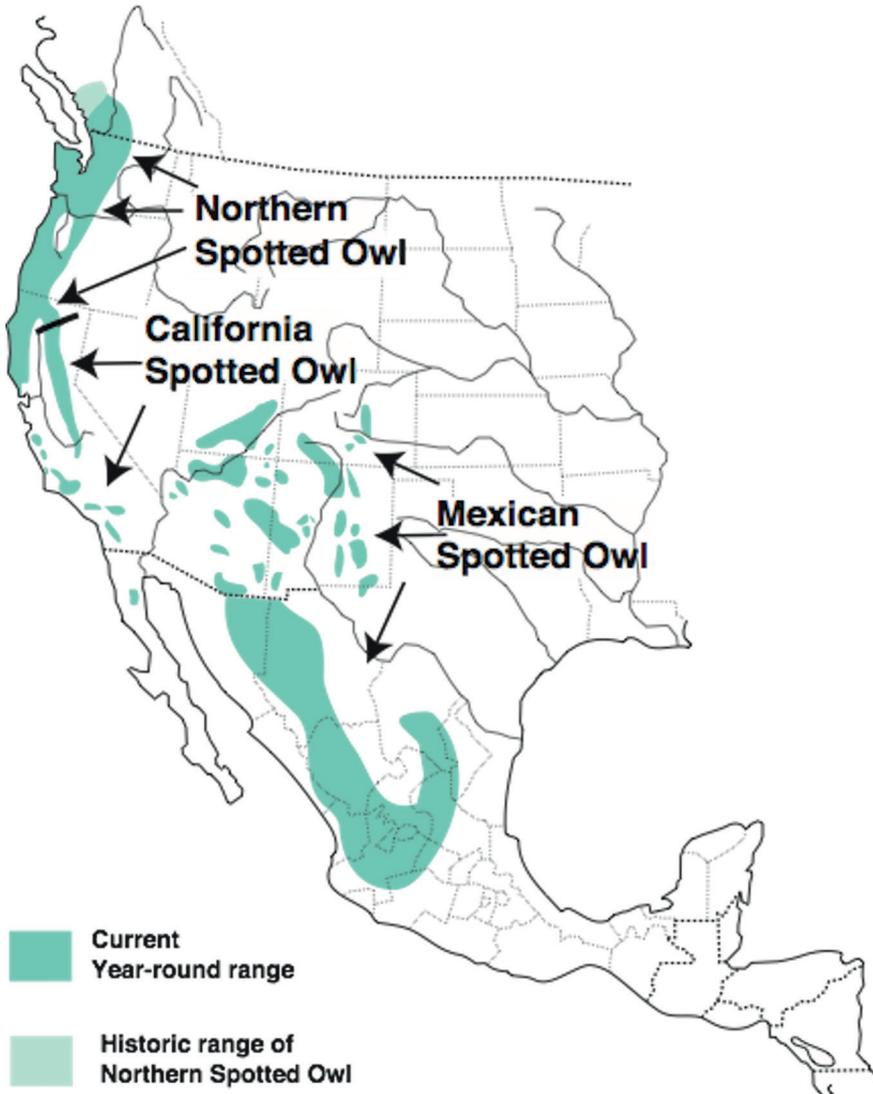


FIGURE 1 *Spotted owl distribution map.*

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communities, an economic threat to local livelihoods, and a menace to the profits of the timber industry (Booth, 1993; Layzer, 2006, pp. 191-222).

This conflict was also a debate over ethics, with various sides arguing for a set of moral values that they thought would trump those of their adversaries. For some, the intrinsic value of spotted owls and old growth forests was

the dominant focus. For others, people and their economic prosperity were of primary importance. Still others wished to optimize both these concerns. Using ideas drawn from animal and environmental ethics, religion, spirituality, and politics (to name a few), policy communities argued and continue to argue over the intrinsic and instrumental value of owls and forests. Indeed, this moral conflict loomed large in the policy presuppositions of both the deep-ecology and wise-use movements that emerged in this milieu (Devall & Sessions, 1985; Yaffee, 1994).

It was in this context that the spotted owl was listed as a threatened species under the U.S. Endangered Species Act (ESA) on June 26, 1990. The United States Fish and Wildlife Service (USFWS) subsequently released a “Final Recovery Plan for the Northern Spotted Owl” on May 13, 2008, and then a “Revised Recovery Plan for the Northern Spotted Owl” on June 28, 2011 (U.S. Fish and Wildlife Service, 2008; U.S. Fish and Wildlife Service, 2011).

At the time of its listing, the threats to the spotted owl's survival were originally attributed to habitat loss from timber harvesting, exacerbated by catastrophic fires, volcanic eruptions, and wind storms, as described in the listing. By the time the Final Recovery Plan was released, inter-specific competition with the expanding barred owl was a pressing concern. This concern only increased with the release of the Revised Recovery Plan. Additional concerns include infectious diseases (e.g., West Nile virus) and global climate change. Nevertheless, the influx of barred owls was considered a threat second only to habitat loss (U.S. Fish and Wildlife Service, 2008, pp. 57-67; U.S. Fish and Wildlife Service, 2011, pp. I: 1-10, III: 5-11).

Historically, the northern barred owl (*Strix varia varia*; hereafter, “barred owls” unless noted otherwise) ranged along the east coast of North America, from southeastern Canada into Mexico. Yet since the early 1900s, barred owls expanded their range northward and westward through the boreal forest and northern prairies. Barred owls are now resident along the western seaboard, from Alaska down into California (Figure 2).

The barred owl is larger and more aggressive than the spotted owl. The bird also has a broader diet and wider preference of habitat types. Barred owls will eat both the small mammals spotted owls prefer, as well as a range of other prey (e.g., crayfish, small birds, mollusks, and amphibians), and they can be found inhabiting both old-growth and moderate-age forest types (Gutierrez, Cody, Courtney, & Franklin, 2007; NatureServe Explorer, 2011b; U.S. Fish and Wildlife Service, 2008, pp. 8, 64-66).

Barred owls are thus displacing spotted owls through interspecific (interspecies) competition for food resources, nesting sites, and preferred habitats. Given the prior species decline of spotted owls, this competition is acute,



FIGURE 2 *Barred owl distribution map.*

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further exacerbating the harms of habitat loss. With the threat of barred owls in mind, the Revised Northern Spotted Owl Recovery Plan identified a set of possible management actions. At the top of the list is was an experiment to remove barred owls from spotted-owl habitat. The goal was to determine if removing barred owls may help spotted owls retain their preferred habitats for feeding and breeding in the wild. The results would then inform future policy planning and management (U.S. Fish and Wildlife Service, 2008, pp. 29-35; U.S. Fish and Wildlife Service, 2011, pp. 111: 62-67).

## Work of the Barred Owl Stakeholder Group

When the barred owl removal experiment first came under serious consideration, Paul Phifer was a biologist with the USFWS and its Northern Spotted Owl Recovery Coordinator. Phifer and his team realized that killing barred owls would likely spark a public outcry, this outcry would be framed in moral terms, and the Service's ability to understand and act on public concerns rooted in ethics were limited. In addition, many stakeholders in government and civil society held deeply felt moral sensibilities about whether one species should be killed for the benefit of another (Oregon Public Broadcasting, 2008; Phifer, 2009).

These concerns made it clear that the removal experiment posed a wicked problem. Wickedness in public policy is not an issue of evil. Rather it reflects policy debates rooted in a strong divergence of outlook, values, and goals, and over which there are no technical solutions that solve the problem outright. Lacking a silver bullet as a solution, wicked problems can be managed, but only if their values and complexity are directly acknowledged and addressed. To do this, both ethical and scientific knowledge must be integrated into the policy-making process (Balint, Stewart, & Desai, 2011; Brown, Harris, & Russell, 2010).

So, in an unusual experiment of its own, the USFWS formed the Barred Owl Stakeholders Group (BOSG) to help it explore the ethics of barred owl removal. The BOSG was composed of over forty representatives invited from relevant government agencies, the forest product industry, First Nations, wildlife rehabilitators, environmental non-profits, and animal protection organizations. The USFWS also contracted with the author, an ethicist chosen for experience with wildlife management, environmental policy, and meeting facilitation.

Discussions of ethics tend to fail when the participants lack a basic understanding and common language for discussing ethics, or the content is too abstract to be applied to concrete cases. The BOSG needed to overcome this hurdle. With this in mind, a mixed-methods approach was designed to create an ethics-based policy dialogue.

### *Process*

The dialogue began with an informational webinar on the history and ecology of barred and spotted owls in the Pacific northwest, as well as the purpose of the BOSG. This was followed by several days of ethics workshops held at the Pacific Regional office of the USFWS in Portland, OR. The webinar and workshops introduced empirical information, essential concepts, and first-order questions regarding the ethics of barred owl management. Examples include

the collapse of spotted owl populations due to logging; the additional pressure of inter-species competition with barred owls; the looming challenge of climate change to wildlands; the meaning of ethics and its relevance to science and public policy; the moral value of animal lives; paradigms of standing and significance in a moral community; whether it is justified to kill one species for the benefit of another; whether lethal management is ever ethical, and if it is, how to mitigate harm and suffering.

Thereafter, a set of conference calls with focus groups drawn from the participants were made to assess interest-based concerns and questions. A subsequent field trip to observe spotted owls near Eugene, OR, was organized that included observation of a breeding pair of spotted owls, as well as a demonstration of the protocol for killing barred owls. A final roundtable discussion was held to review the insights of the BOSG.

The entire ethics-based policy dialogue lasted approximately six months (January-June 2009). Two years later, the USFWS released the draft EIS of the removal experiment for public comment. The final EIS was released in 2012.

### *Safe Harbor*

Because the politics between stakeholders and their organizations was fraught, the BOSG adopted a safe harbor agreement. Participants agreed not to seek political advantage with the public by “outing” each other as individuals or organizations. Participants remained free to discuss the deliberations of the meeting, but agreed to do so in a manner that respected the integrity of their peers, and anonymized the viewpoints of particular individuals or organizations. As part of this safe-harbor agreement, no transcripts, audio, or video recordings were made.

Operating under this safe harbor agreement not only prevented public spats between stakeholders, but protected representatives of stakeholder organizations from retribution should they begin to think outside the policy precommitments of their own organization. Overall, the safe-harbor agreement helped build trust among the participants, and allowed for heterodox thinking about managing barred and spotted owls.

### *Delimitations*

In order to forestall misunderstanding, it is important to note what the BOSG was not meant to do. It was not charged with assessing the evidence of barred and spotted owl competition, developing alternative courses of action for barred owl removal, evaluating the scientific rigor of the experimental design, or ensuring that the experiment was in regulatory compliance with the animal welfare protections. Rather the BOSG was formed to help the USFWS better

understand the ethical dimensions of the removal experiment as part of its initial scoping process for an EIS.

Scoping is an early stage in the creation of an EIS that is mandated by the National Environmental Policy Act of 1970 for any action of the Federal government that may significantly impact the environment. An EIS is used to determine the possible impacts of government action, and outline options to manage those impacts with an eye to policy objectives. Scoping helps determine the subject matter to be addressed, such as identifying background information, pertinent research, and needed expertise. Scoping occurs well before the analysis of impacts begins or the articulation of alternative courses of action (Caldwell, 1999). In this respect, the activity of the BOSG was educative and not determinative of the EIS for the removal experiment.

Additionally, the BOSG was not a substitute animal ethics committee. In the U.S. the humane care and use of animals is governed primarily by the Animal Welfare Act of 1966 (AWA) which, as amended, covers animals who are used in biomedical research, exhibited publicly for education or entertainment, bred for commercial or internet sales, and transported for commercial purposes. More specifically, the health and welfare of animals in biomedical research is overseen by Institutional Animal Care and Use Committees (IACUCs) at institutions receiving public funds. Significantly, neither the mandates of the AWA nor the oversight of IACUCs extend to wildlife, with the partial exception of primates and marine mammals held in captivity (Curzer, Wallace, Perry, Muhlberger, & Perry, 2011; Curzer, Wallace, Perry, Muhlberger, & Perry, 2013). The removal experiment was therefore not reviewed by an IACUC before the USFWS released its final EIS (Bown, 2017).

After the final EIS was completed, the Service contracted with a US Geological Survey team to conduct the removal experiment. Led by avian ecologist David Wiens, that team did ask the Oregon State University (OSU) IACUC (<http://research.oregonstate.edu/iacuc>) to undertake a review of the removal experiment including its protocol for killing barred owls. The IACUC approved both the experiment and the protocol (Bown, 2017; Buermeyer, 2015).

### Ethics-Based Policy Dialogues

The choice to use an ethics-based policy dialogue for the BOSG is best understood in terms of its historical emergence as an alternative form of democratic policy discourse. In order to root out widespread political corruption in the United States, the progressive movement of the late nineteenth and early twentieth centuries sought to create politically neutral government agencies

to implement legislative intent, executive decisions, and judicial rulings. This vision was one of operational governance by technical experts, or “technocracy.”

As they stand today, these agencies use regulation, rule-making, inspections, oversight, permits and other administrative procedures to achieve the public good. The conservation of natural resources (e.g., watersheds, forests, soils, and wildlife) saw some of the earliest efforts in this respect, with the United States Forest Service, USFWS, Bureau of Land Management, and National Marine Fisheries Service arising to fulfill specific regulatory needs (Andrews, 2006a).

Technocratic approaches to public policy do suffer several drawbacks. They tend to be administered by scientific and technical elites who hold the public at arm’s length, assume a unitary public interest in the face of many competing priorities, are often inflexible and unresponsive to changing circumstances and social norms, and sometimes fail to secure legitimacy for their decisions. Because of all this, agency regulation faces increasing levels of opposition and resistance (Dryzek, 2005b, pp. 75-98).

This does not mean that agency regulation has failed, or that its role as a bulwark against political and corporate corruption is any less important than it was during the heyday of progressivism. Rather, it means there is a substantial desire to improve upon technocracy by addressing its deficits. Democratically oriented policy-making innovations such as public consultation, alternative dispute resolution, citizen policy juries, lay citizen deliberation, public inquiries, and right-to-know legislation are efforts to overcome the drawbacks of technical approaches by injecting a dose of democratic deliberation into the administrative process. The public consultations and environmental reviews mandated by National Environmental Policy Act of 1969 (NEPA) are a case in point (Dryzek, 2005b, pp. 99-120).

Policy dialogues are one of these democratic innovations. What makes them distinct is that they focus on the values and principles that inform concrete policy decisions. While values and principles are inextricable from policy-making, they are frequently rendered invisible when the focus is on technical and procedural details. In the absence of policy dialogue, elites and powerful interests drive policy while framing private interests as objective and for the public good. Policy dialogues make manifest the latent values and principles that lay at the foundation of policy-making, revealing that policy decisions are never value-free.

The goals of a policy dialogue may include enhanced knowledge, mutual learning, the networking of political adversaries, and an evolving understanding of a common policy problem. While a discreet policy consensus is not the goal of a policy dialogue, finding common ground from which to create better policies is. There are no shortcuts to accomplishing this goal, and the

investment of time, resources, and personnel is high. The investment is justified, however, by the prospect of a deeper and better understanding that can generate win-win resolutions to the most pressing policy issue of the day (Dryzek, 2005a).

In keeping with this emphasis of policy dialogues, the ethics training and facilitation of the BOSG was not provided to lead participants to a “correct” answer. Despite stereotypes to the contrary, ethics rarely provides such answers (Midgley, 1993). Instead, the training and facilitation sought to help stakeholders and the USFWS identify and clarify the moral issues at stake, evaluate the ethics of the removal experiment, and provide guidance for whether and how it should be undertaken.

### Findings of the BOSG

Findings are the conclusions reached as part of an authoritative inquiry—academic, governmental, or otherwise. The term is a metaphor for discovering or uncovering something about the facts of an event or issue. Findings are vital in law and policy, as they determine the facts used to reach a legal or policy decision. The idea of an “ethics finding” draws from these meanings. It is the result of an inquiry that vitally contributes to our understanding of a real world moral question or controversy. An ethics finding is not concerned with establishing scientific, legal, or social facts per se. Rather it seeks to investigate the “moral facts”—those real if intangible ethical beliefs, dispositions, and concerns that are part and parcel of an issue.

The final roundtable policy discussion of the BOSG produced a number of ethical findings. Because the safe-harbor agreement prevented written transcripts or audio/video recordings, these findings were elicited through a Quaker-style “sense of the meeting” process. After a thorough discussion had explored the various dimensions of an issue, the author (then acting as facilitator) summarized what the participants agreed to and differed on (the sense of the meeting), and asked if this summary fairly represented the participants’ points of view.

Among the most important and discreet findings were the following. These findings came in no particular order per se, and are arranged in the following sequence to provide a coherent narrative.

- (1) Science and ethics are complementary and equally necessary to understand the implications of barred owl removal. Science helps keep the

facts used for policy and management accountable and transparent. Ethics does the same for the values, especially moral values, that inform wildlife policy and management.

- (2) Reverence for life is a broadly shared value among those concerned with barred owl management. Whether the focus was living systems or individual beings, stakeholders found common ground in this ethical disposition.
- (3) Because barred owls are living beings, aware and self-aware, compassion and the avoidance of suffering are crucial values to their management. This means that any and all management activity should pass tests of both scientific and ethical rigor.
- (4) There are historical and scientific arguments over whether people are culpable through landscape changes for barred owls migrating from eastern to western North America. Irrespective of this culpability, society has through habitat destruction put the well-being of spotted owls at risk, and is morally responsible for taking appropriate action to help spotted owls, as well as the broader biodiversity of Pacific northwest forests.
- (5) Barred owls may at some point become native to the Pacific northwest. Whether they do or not does not change our ethical responsibilities to help the spotted owl. Because the owl's population is crashing throughout the bird's range, the threats facing spotted owls are of crisis proportions. Hard policy and management choices to try and stabilize or recover this population may be necessary.
- (6) Lethal removal experiments are tentatively justified, but they should be limited and humane, with a defined protocol that minimizes harm and suffering. Further, removal should be undertaken by professional sharpshooters under the supervision of the USFWS, and avoid the taking of adults during breeding season.
- (7) Non-lethal alternatives to barred owl removal are not available at this time. The USFWS should actively continue to seek out or develop such alternatives. In addition, non-lethal alternatives are strongly preferred over lethal measures when available and effective.

Each of these findings raises a set of subsequent questions and issues for investigation, a discussion of which is not possible here. The overarching point, however, is that an ethics-based policy dialogue enabled stakeholders to address difficult moral issues in a complex ecological, political, and moral environment.

## Current Status of the Experiment

After a period of public comment, the experiment began in 2013 and will continue through 2018. At that time, its preliminary results will be assessed, and a decision will be taken to end or extend the experiment.

The lethal removal method defined and approved during the BOSG was the use of a call box to attract barred owls, trained sharp-shooters with a shotgun optimized to kill the birds as quickly and painlessly as possible, and a retrieving dog to fetch the bodies so any birds not yet dead could be euthanized. The load, shot, and choke of the shotgun, as well as the distance of the sharpshooter to the bird, has been adjusted several times during the course of the experiment to minimize the wounding and suffering of the owls.

This is difficult work undertaken in very demanding terrain and weather conditions. It is complicated by the approach of the barred owls to the call box—an inward spiral requiring the sharp-shooter to rotate yet maintain dead aim. This requires highly skilled shooters who are trained never to shoot when a near-miss is possible. Because of this protocol, only a few of birds have not been killed immediately.

Robin Bown is a wildlife biologist with the USFWS and the current USFWS lead for the Barred Owl Removal Experiment. She notes that as of October 2016, 1,064 barred owls have been killed on four study sites—Hoopa, Oregon Coast Ranges, Cle Elum, and Union/Myrtle (Bown, 2017).

Across all the study sites, the number of breeding pairs of spotted owls continues to plummet, while the number of dispersing and breeding barred owls continues to grow. Only the Hoopa study site has enough data to give a preliminary analysis of the removal experiment. It suggests a slowing decline of the spotted owls, and the removal of barred owls of breeding age. This may indicate that areas serving as refugia for spotted owls can be aided through lethal removal, but there is no conclusion on this yet (Bown, 2017; Wiens, Dugger, Lewicki, & Simon, 2017).

## Policy Pathways for Ethics and Wildlife

Research from diverse fields reveals that values and worldviews frame policy issues, determine the interpretation of facts, and drive policy-making through its iterative cycle of issue framing and thence policy development, implementation, and revision (Fischer, 2003; Lakoff, 2004).

Moral values are key to this process, trumping issues and perspectives that are not perceived as being in the same ethical category. They are not fungible

sets of individual preferences to be traded off against one another in the public sphere. They are instead broadly shared and socially evolving commitments to how we ought to live. Ethics is therefore indispensable to understand what public policy means in creation, application, and justification (Dryzek, 2006; Lynn, 2004b; Shue, 2006).

In North America, the first systematic use of ethics in public policy was in medical and health care policy. This was spurred by revulsion over Nazi and racist science, the abuse of animals in laboratories, and corporate conflicts of interest in pursuing profit over health. Today, “bioethics” routinely informs the policy and practice of medical care, human subjects research, and to a far lesser degree, animal subjects research (Jonsen, 1998; Kuhse & Singer, 1998).

Bioethics, along with a conjoint “ethical turn” in the social sciences, have subsequently generated a variety of methods for identifying, clarifying, and evaluating the ethical dimensions of public policy, including the moral values at stake, the ethical discourses that frame those values, and the opportunities for ethics-based interventions (Bellah, Haan, Rabinow, & Sullivan, 1983; Callahan & Jennings, 1983). Alongside policy dialogues, three other policy-relevant methods exemplify this trend.

The first is termed ethical, legal, and social implications research (ELSI). It was developed as part of the human genome project, and is primarily used in human biomedical research. ELSIs are big-picture, long-term, interdisciplinary working groups that generate as many ethical, legal, and social insights into a policy issue as possible. These insights are then used to map out future research agendas and policy development. ELSIs are particularly useful for developing high-level understandings of problems that are not well-understood (National Human Genome Research Institute, 2017).

The second is interpretive policy analysis (IPA). IPA uses qualitative and interpretive research techniques common to the social and human sciences—documentary analysis, interviews, focus groups, participant-observation, and so on. It employs these to examine the meanings, presuppositions, and implications that lie at the heart of policy creation and decision-making. IPA is an indispensable complement (and sometimes corrective) to quantitative forms of social and environmental policy analyses (e.g., cost-benefit analysis, risk analysis) (Yanow, 1999).

The author’s final report on the BOSG to the USFWS introduced a new method, the ethics brief. Analogous to the legal brief known as *amicus curiae* (friend of the court), an ethics brief provides information, analysis, and recommendations to policy communities. It can be used at any stage of the policy cycle. At each stage, ethics briefs help highlight the specific values, norms, and ethical viewpoints that are being served or underserved. The great virtue

of ethics briefs is that they examine particular cases in great detail. While new, the ethics brief has subsequently been incorporated in verbal argument and written testimony on the management of wolves in the U.S. (Lynn & Hadidian, 2013).

Policy dialogues, ELSIS, IPAs, and Ethics Briefs are all tools for examining the ethics of proposed or extant public policies. To actually build public policies with explicit ethics content, however, it is necessary to have enabling legislation and/or institutions. Two examples with global significance are the NEPA in the United States, and the precautionary principle in the European Union and international affairs.

NEPA was enacted during a wave of environmental legislation in the 1970s that serves as the basis for environmental protections in the United States to the present day. Among other purposes, NEPA required an EIS when significant action on the part of the federal government impacts the environment (Andrews, 2006b).

What is poorly understood is that the original intention of NEPA was to integrate both facts and values (science and ethics) in its environmental impact assessments. Section 102 [42 USC § 4332] of the act outlines the basic process and parameters for an EIS using ecological, economic, and technical analysis. Yet in the same breath it also emphasizes an “interdisciplinary approach which will insure the integrated use of the natural and social sciences” to include “unquantified amenities and values” so as to achieve a “productive and enjoyable harmony between man and his [sic] environment” (Council on Environmental Quality, 1970). These are value-laden concerns about the good life and doing right by others that require the information and insights brought to light by the humanistic sciences of which ethics is a key component.

This aspect of NEPA has not been acted upon for various reasons. The executive branch under both Democratic and Republican administrations has undercut the supervisory role of NEPA’s Council on Environmental Quality. Legislators are uncomfortable with ethics as an alternative source of accountability and check on special interests. And the judicial branch has largely misconstrued the act in terms of its process requirements for environmental review and public comment, not its substantive goals generating the best public policy for the well-being of people and their environment (Bartlett, 2005; Lindstrom & Smith, 2008).

Even so, incorporating ethics into the removal experiment’s EIS afforded, for the first time, an opportunity to make good on NEPA’s original intent. Believing a broader range of values was needed in wildlife management generally; those in the Service managing the removal experiment were eager to include insights from ethics in their scoping process.

The precautionary principle (a.k.a. precaution, precautionary analysis) is an awkward translation of the German concept “vorsorgeprinzip” or the principle of fore-caring. It is difficult to pin down exactly when and where this principle was first articulated. Resonant ideas and language arose in German policy circles during the early nineteenth century. Its meaning was akin to a synthesis of “look before you leap” and “first do no harm.” Then, as now, it was primarily used when thinking about animal protection, ecological integrity, and public health—all public issues inspired (at least in part) by moral concerns about the well-being of people, animals, and/or nature. The idea was central to the UN Global Charter for Nature in 1982, and has been increasingly adopted in international agreements and the European Union (O’Riordan & Cameron, 1994).

It is not uncommon to hear precaution described as a scientific principle for dealing with uncertainty in public policy (Tickner, 2002). There is insight to this, to be sure. Yet precaution has its roots as a moral principle with strong implications for how we think about ethics and wildlife. It consciously seeks to foresee and forestall harm whenever possible by using environmental and social well-being as foundational guidelines (Myers & Raffensperger, 2006).

In the policy realm, precaution leads in several directions. In terms of ethical guidelines, it promotes an ethics of care that seeks to eliminate or reduce the environmental or social harm. With respect to the science, it shifts the burden of proof onto policy actors whose proposals or actions may cause harm to communities. If harm is to occur, it must be minimized and reversible. At the political level, precaution focuses on the best policy alternatives for the well-being of the community and the environment as a whole. All this requires a governance process that is not captured by elites or vested interests, but is instead transparent, accountable, and democratic. As importantly, precaution requires keeping one’s eyes on the prize, which is a moral vision of the common good (Bernard, 2016; Raffensperger & Tickner, 1999).

### A Counter-Factual Conclusion

As a counter-factual thought experiment, consider the joint fate of the barred and spotted owls if NEPA, precaution, ethics briefs, ethics-based policy dialogue, IPA, or ELSI had been in use when the logging of the Pacific northwest began in the 1930s.

Had ethics been made an explicit part of the policy process, the well-being of the spotted owl and other denizens of those forest may have been considered. The liquidation of timber “capital” on public lands for private profit, and

the destruction of the old-growth habitat on which spotted owls depend, may not have occurred at all or to contemporary scale. Under this scenario, the original endangerment of the species through habitat destruction may not have happened.

This may or may not have prevented barred owl in-migration. There would have been a healthy population of spotted owls, and perhaps, different ecological responses preventing their replacement. Even if barred owls did make a home in the forests of the spotted owls, they may not have posed a mortal threat to the survival of their smaller cousins. Barred owls may instead have become an uncontroversial new resident in the Pacific states and provinces.

We will never know if this alternative narrative would have turned out well for the spotted owl. Yet we do know that a world without ethical concern and express policy consideration for the well-being of wildlife has put many—like the northern spotted owl—at the door of extinction. In the face of rampant development and global warming, theirs is a fate faced by many more species of wildlife the world over. According to the findings of the BOSG, the killing of barred owls for the benefit of spotted owls is tentatively justified. But it is neither practicable in the long-term nor ethical when used to ameliorate preventable harm done to a species and the individuals who comprise it. Bringing ethics to wild lives is therefore crucial to making informed decisions to resolving these hard cases now and preventing them in the future.

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