

# 16

## ENVIRONMENTAL ETHICS FOR WILDLIFE MANAGEMENT

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Ethical issues influence nearly every aspect of wildlife management from its broad principles to specific decisions. The influence of ethics on the broad principles of wildlife management is illustrated by The Wildlife Society's (TWS) vision statement:

TWS seeks a world where people and wildlife co-exist, where biological diversity is maintained, and decisions affecting the management, use, and conservation of wildlife and their habitats are made after careful consideration of relevant scientific information and with the engagement and support of an informed and caring citizenry.

How can this vision be realized without addressing issues such as: Why should people care about wildlife and biodiversity? Is the need to care only because wildlife and biodiversity are useful to humans or also because they are valuable in their own right? What exactly does it mean to conserve wildlife and their habitat? For example, both Aldo Leopold and Gifford Pinchot wrote about conservation, but their ideas about the meaning of conservation differ profoundly. An appreciation of modern environmental ethics helps one to address issues such as these intelligently and therefore fully understand the TWS vision statement.

Ethics also influences the details of many specific situations. Consider this example: Isle Royale National Park is a federally designated wilderness area, and home to a small wolf population that is isolated from other wolf populations and that shows signs of inbreeding depression. If you value healthy wildlife populations, you might consider the feasibility of genetic rescue, which entails introducing unrelated individuals to alleviate the negative consequences of genetic deterioration; however, you might think this a bad idea if you value designating a few places on the planet where humans intervene as little as possible. The idea is based on letting nature "run its course." This, you might suggest, is the purpose of federally designated wilderness areas in the United States.

On the other hand, you might think attempting genetic rescue represents a promising, but largely untested, conservation tool that could help conserve many other populations.

Isle Royale wolves *might* represent a model system for testing this tool, but how would intervention affect the health of the Isle Royale ecosystem? Because the effects of winter, ticks, and climate change on Isle Royale moose seem to be increasing, a more resilient wolf population could be importantly detrimental to the interactions among wolves, moose, and the forest. What about the welfare of the individual wolves? Evidence suggests that some of the bone deformities that Isle Royale wolves exhibit may also be painful to individual wolves—pain that might be mitigated in subsequent wolves by intervention. Isle Royale is but one example of a common challenge, the challenge of knowing how to balance values that may conflict when decisions are made about how to manage wildlife populations. Environmental ethics and conservation ethics are fields whose purpose is to help us handle these challenges.

### 16.1. WHAT IS ETHICS?

The social sciences (including social psychology, sociology, and economics) represent disciplines that can help to describe how humans value wildlife. Ethics is the discipline whose focus is formal and rigorous analysis of ethical propositions. The fundamental distinction between ethics and the social sciences you have read about in this book is that social science is primarily concerned with the analysis of descriptive propositions about human values, whereas ethics is concerned with the analysis of prescriptive propositions about human values. Descriptive propositions describe the nature of the world around us, and prescriptive (ethical) propositions are claims about how we ought to behave, value, or relate to the world around us. For example, a sociologist might work to describe what value or social norm stakeholders hold, and to understand why stakeholders hold a particular value. The purview of ethics, however, is to assess whether and why one *ought* to hold some value.

Ethical propositions are easily identified in that they can typically be expressed using words such as "ought" and "should." Do you ever think, "There ought to be fewer deer on

the landscape" or, "The wolf population should be allowed to increase in abundance"? These are examples of ethical propositions. Ethics may also be defined as the analysis of propositions that assess what is good or what is right. For example, when Aldo Leopold said, "A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise," he was making an ethical proposition that humans should relate to nature in ways that tend to preserve nature's integrity, stability, and beauty.

Insomuch as wildlife conservation involves propositions such as, "We ought to behave in this way (toward some aspect of the natural world) . . ." wildlife conservation can be considered ethics in action. Environmental policies and laws also reflect ethical commitments. For instance, the Endangered Species Act and the Wilderness Act of 1964 seem to reflect the ethical proposition that aspects of nature (in these cases, species and wilderness areas) deserve protection. These laws obligate us to protect species and ecosystems, not only because they benefit us somehow—physically, emotionally, or psychologically—but because they are also valuable for their own sake.

The ubiquity of ethics in wildlife management is also reflected in meanings of sustainability. Many consider (quite uncontroversially) sustainability to mean, "meeting human needs in a socially just manner without depriving ecosystems of their health"; but what is meant by "human needs," and what is a "healthy ecosystem"? Depending on how these terms are defined, sustainability could mean anything from "exploit as much as desired without infringing on future ability to exploit as much as desired" to "exploit as little as necessary to maintain a meaningful life." These two attitudes would seem to represent dramatically different worlds, and yet either could be considered sustainable depending on the meaning of ethical concepts that define sustainability (Vucetich and Nelson 2010).

Nearly all goals in wildlife management embody an ethical attitude about how society ought to relate to nature (Decker et al. 1991, Shrader-Frechette and McCoy 1994). A great deal of wildlife management, for example, is concerned with managing populations that are overabundant, too rare, or in need of restoration. Each of these cases represents an ethical attitude about how the world ought to be. Any claim that some wildlife management goal or action is inappropriate also reflects an ethical attitude. In this sense, ethical issues are not only ubiquitous but they are also inescapable: ignoring the ethical dimension of an issue does not make it go away. For this reason, it is wise to be adept at identifying and analyzing ethical issues in wildlife management, as illustrated by the examples involving sustainability, Isle Royale wolves, and The Wildlife Society vision statement.

Ethics is not merely asserting what is right or how we ought to behave. Ethics, as the academic tradition has been practiced for more than 2,500 years in the West, is also about understanding methods that reveal the most rational answers to these questions about how we ought to act. Much of this chapter is an introduction to these methods.

## 16.2. WHAT IS ENVIRONMENTAL ETHICS?

Environmental ethics is a relatively new field of study. In the early 1970s, a small group of philosophers realized that much of the controversy associated with natural resource management rises from unsettled ethical issues about how humans ought to relate to nature. At first they were interested in these sorts of questions: In what way or in what sense, if any, are humans really separate from the rest of nature? Does nature have intrinsic value and, if so, what does that mean? Though these questions remain important, they are better understood today than 40 years ago, and newer and different questions have emerged. The formal application of environmental ethics for the purpose of better understanding the human dimensions of wildlife is relatively uncommon (Box 16.1).

After four decades of development, the discipline of environmental ethics has given rise to distinct schools of thought that distinguish themselves primarily by the rational arguments they develop to support the type of value they conclude that nature possesses. These schools of thought also differ from one another by being more or less inclusive. For example, some argue that only humans are members of the moral community, whereas others argue that all living things should be included; some argue that species and ecosystems matter ethically. Before exploring different schools of thought in environmental ethics further, it is useful to describe a few of the most basic ethical theories (Box 16.2).

## 16.3. THEORIES OF ETHICS

One of the most important ethical theories is *consequentialism*, which asserts that the rightness of an action is determined by the consequences of an action. *Utilitarianism*, an important form of consequentialism (a form of which dominated American conservation in the twentieth century), presumes that we ought to act in ways that produce the most utility, happiness, or pleasure for the most people. Typically "people" has been equated with "human being," though not by everyone. *Pragmatism* is sometimes viewed as another school of consequentialist thought that claims truth or meaning ought to be judged by practical consequences. A pragmatic ethic is judged, therefore, by its ability to solve ethical problems, as we perceive those problems. Although pragmatism may seem commonsensical, it has long been deeply controversial among ethicists.

*Deontology* contrasts with consequentialism and judges an action's rightness by the intention or motivation for action rather than by the results of an action. Examples of deontological perspectives include treating others as you would want to be treated (e.g., the Principle of Ethical Consistency), respecting the rights of things that possess rights, performing an action out of a sense of duty, following certain pre-established rules, and only performing actions you would be willing to make into universal law. The Endangered Species Act seems to manifest a deontological perspective because it grants a basic

**Box 16.1 INSTRUMENTAL AND INTRINSIC VALUE IN ENVIRONMENTAL ETHICS**

Are wildlife and the rest of the non-human world valuable merely because they satisfy a variety of human needs and desires, or does the non-human world possess value that transcends "use value"? Although some people believe nature is valuable only as a means to serve human goals and objectives (Instrumental Values), others believe nature is valuable beyond its instrumental value (Intrinsic Value). This debate over the type(s) of value(s) attributed to nature is at the center of both wildlife management and environmental ethics and historically is illustrated by philosophical differences between Gifford Pinchot (1865–1946) and Aldo Leopold (1887–1948). Pinchot (1947:325–326) believed that "There are just two things on this material earth—people and natural resources." This assumption about the nature of reality (or metaphysic) served as the foundation for Pinchot's ethic, which suggested right actions could be prescribed as "the use of the natural resources for the greatest good for the greatest number for the longest time." Rejecting Pinchot's metaphysic of human distinction and instead arguing that humans were "plain member and citizen of" a "biotic community," Leopold (1949:204, 224–25) believed actions were right if they tended "to preserve the integrity, stability, and beauty of the biotic community," and wrong if they tended otherwise.



Gifford Pinchot, first Director of the U.S. Forest Service

right (i.e., the right to exist) to most species apart from their economic value.

*Natural Law Theory* and *Divine Command Theory* are similar, and presuppose that what is natural or divinely commanded is moral; while that which is unnatural or divinely forbidden is immoral. For example, if one were to expect the biophilia hypothesis (i.e., an innate or *natural* tendency to love life) to deliver specific moral mandates, then the biophilia hypothesis would exemplify Natural Law Theory (Box 16.3). Similarly, ethics developed explicitly from Christian ideals (e.g., an ethic of stewardship as a directive from God) or in reference to any divinity represent Divine Command Theory.

*Virtue Theory* holds that right actions arise from people who are manifestly virtuous, and that moral education ought to focus on identifying precisely which virtues ought to be manifest (e.g., generosity, respect, humility, courage) and how to cultivate such virtues in a person. A challenge for virtue ethics is to understand precisely which virtues are most important (e.g., justice or equality, modesty or magnanimity, and so on).

*The Theory of Moral Sentiments* stresses that reason and emotion are both critical for judging the rightness of an action. For example, in some cases, reason is necessary for indicating circumstances where moral attention is required, and emotional sentiments (such as compassion) motivate one to

manifest moral attention. Darwin's view on ethics (chapter 3 of *Descent of Man*) and Leopold's Land Ethic are both related to the Theory of Moral Sentiments, developed philosophically by David Hume (1739) and Adam Smith (1759) and as discussed in Callicott (1982).

Two other important terms in ethics are moral agent and moral patient. A moral agent is someone capable of extending moral consideration to others. Nearly all humans are moral agents. The extent to which some non-humans (e.g., chimpanzees and wolves) exhibit a very primitive form of moral agency is actively debated. A *moral patient* is anything that should receive moral consideration. Although moral agents also tend to be moral patients (e.g., a normal adult human), a moral patient is not always a moral agent (e.g., a 1-day-old human). Scholars in environmental ethics actively debate whether many non-human forms of life should be considered moral patients. Different theories answer environmental ethics questions in different ways (Box 16.4), each speaking to different values that people apply to environmental issues.

#### 16.4. THEORIES OF ENVIRONMENTAL ETHICS

Although there are many ways to categorize the field of environmental ethics, it is centrally concerned with two entwined

**Box 16.2 ETHICS****Misconceptions and Obstacles**

Many misperceptions about the nature of ethics interfere with the effective application of ethics to issues in wildlife management. Below are some common objections [O] to ethics and responses [R] to those objections.

- O1. Ethical problems are intractable and ethical attitudes change very slowly. For these reasons, ethical disagreements are inevitable and attempts at resolving them are not worth much attention.
- R1. In this way, ethics is more like science than we often appreciate; that is, both require high degrees of rigorous thought and progress is often painfully slow. As discussed later in this chapter, ethical consensus, much like scientific consensus, is possible given the process of ethical discourse.
- O2. Ethics is just non-rational and subjective, whereas only science is rational and objective; therefore, progress can be made with the latter but not with the former.
- R2. In practice, science is not always as rational and objective as we sometimes think. More importantly, genuine ethical discourse relies on the formulation and assessment of rational and objective arguments.

- O3. Ethics cannot be universally true; notions of right and wrong are only true from the point of view of a given culture or even a given individual. The belief that a wetland is better than a parking lot has no universal truth-value; we use the values we hold to decide which is better.
- R3. Given that all humans and all human cultures have certain attributes in common or have common interests, then this simply might not be true. The values that ethical positions depend upon might, in fact, be as universal as many of the empirical premises that scientific positions rest upon.
- O4. Ethics just seems to be a way to tell others what to do (i.e., another way to infringe upon freedoms and liberties).
- R4. Fundamentally, ethics is about the understanding of what it is that we ought to do. In this sense, ethics is primarily a bottom-up, rather than top-down, exercise aimed at understanding the best way to live in the world.

questions: (1) the question of *moral considerability*; that is, what sorts of entities deserve membership in the moral community and what justifies that membership? (i.e., which entities are moral patients, and why?), and (2) the question of *moral significance*; that is, how humans ought to behave in an inclusive moral community (e.g., one that includes humans and non-humans) and how do humans sort out competing moral claims after we have established a moral community? Approaches to these questions begin with the application of standard ethical theories (rights theory, utilitarianism) to these questions and are therefore referred to as "extensionist" theories of environmental ethics because they work to "extend" those traditional ethical theories beyond the traditional bounds of moral inclusion (that is, beyond humans).

*Anthropocentrism or Human Welfare Ethics.* This perspective focuses on justifying how it is appropriate to believe that only humans are worthy of moral consideration and the consequences of that belief. Anthropocentrists care for non-humans—such as species, ecosystems, or non-human animals—only when human well-being depends on non-human well-being. For the anthropocentrist, only humans possess intrinsic value; all else is merely instrumentally valuable. Anthropocentrists agree with the famous eighteenth century philosopher Immanuel Kant (1930:241), who asserted, "all duties towards animals, towards immaterial beings and towards inanimate objects are aimed indirectly at our duties towards mankind." Anthropocentrists, therefore, believe we ought to conserve wildlife only be-

cause their loss might negatively impact human beings in some manner.

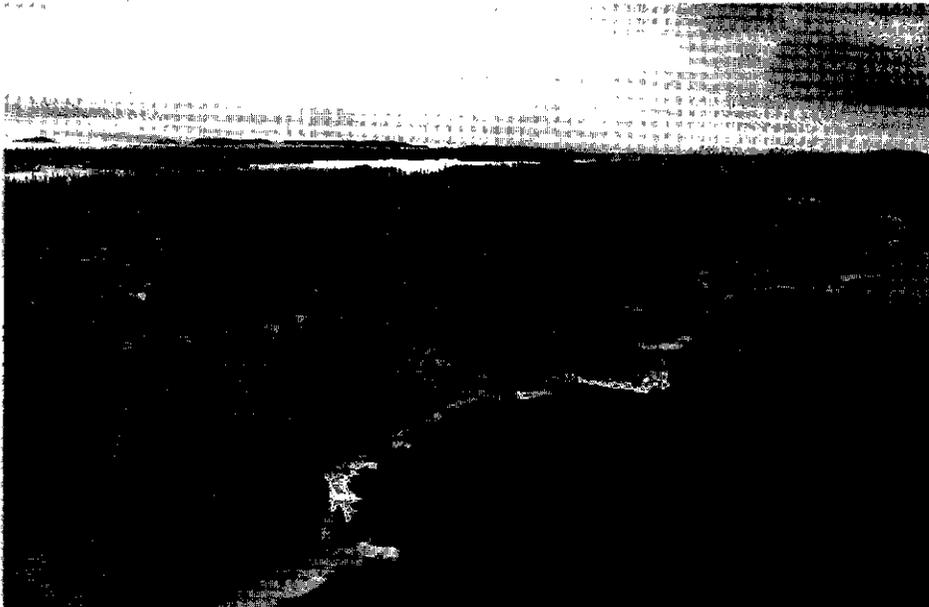
*Zoocentrism or Animal Welfare Ethics.* This perspective is associated with the idea that, in addition to humans, certain non-human animals possess intrinsic value and deserve direct moral standing. The basis for this thinking begins with the observation that humans do not possess moral standing "just because"; instead, we have moral value because we have certain properties (e.g., consciousness or the ability to feel pain). Logical consistency, a zoocentrist then would argue, forces us to grant moral standing to anything possessing a morally relevant property. Hence, if certain non-human animals possess those morally relevant properties, then they too are intrinsically valuable and deserving of direct moral consideration. A zoocentrist would be supportive of, for example, efforts to conserve the habitat of morally relevant wildlife species (because these species would be made up of morally relevant specimens). However, he/she would also tend to oppose the killing of morally relevant animals that represent exotic species. An ethical dilemma is created in these situations when exotic, but morally relevant, animals harm native species.

*Biocentrism.* This perspective expands the moral community of zoocentrists by arguing that being alive is the morally relevant trait; that is, all individual living things deserve direct moral consideration. Albert Schweitzer (1923:254), perhaps the most popularly recognized biocentrist, summarizes the position thusly:

### Box 16.3 A COMMENT ON NATURAL LAW THEORY

Natural law theory arguably serves as the foundation of many wildlife management ideas. Some people, for example, argue that hunting is a natural and, thus, ethical relationship to wildlife. Others defend the morality of wildlife restoration efforts on the basis that such efforts re-establish a "natural balance" to the world; therefore, the following "naturalistic" objection to environmental ethics might be expected: "Can't we dispense with all of this talk of ethics and just do that which is natural?" A couple of serious challenges, however, arise immediately when considering natural law theory. First, the theory assumes that what is natural can be discovered and defined objectively. Second, the theory assumes that what is natural is also what is good; this is an assumption philosophers

sometimes call the "naturalistic fallacy." Third, even if what is natural can be defined, and even if what is natural is also what is good, it is not always clear what ought to be done. Appealing to naturalness, for instance, as a way to determine what should be done in the case of the inbred wolves of the Isle Royale will not necessarily establish clear guidance, because extinction (which would presumably suggest non-interference as the ethical course of action) and predation (which would presumably suggest genetic rescue as the ethical course of action) are both arguably natural. In the end, you should not be surprised when two wildlife conservationists, both committed to doing what is natural or "letting nature take its course," do not agree on a specific course of action.



Located in Lake Superior, Isle Royale is the location of a long-running study of wolf-moose interactions (photos courtesy Isle Royale Wolf-Moose Project)

**Box 16.4 HOW DIFFERENT THEORIES ANSWER ENVIRONMENTAL ETHICS QUESTIONS**

Should people be allowed to use snowmobiles in Yellowstone National Park (YNP), which might disrupt wildlife? Should YNP be treated differently from other places where snowmobiles are allowed? Should corporations, communities, or government entities be allowed to destroy a wetland important to waterfowl if they agree to create a wetland of equal size and wildlife value elsewhere? Different people evoke different ethical theories; therefore, different ethical theories will approach questions like these in different ways. It is important to note also that even those people who are employing what they think is the same ethical theory might not agree on a given course of action.

**Consequentialism.** A utilitarian would be obligated to try to account for the overall good versus the overall harm done by allowing some entity to trade one wetland for another, or by allowing a few people to benefit at the potential expense of others.

**Rights.** A rights theorist would consider how certain actions—here wetlands trading and snowmobiling in natural areas—might impact the rights of all those things that might be said to possess rights (human and non-human alike).

**Virtue.** Someone motivated by acting virtuously would consider whether wetlands trading or even certain types of recreation, such as snowmobiling in natural areas, are activities a virtuous person or society (a person or society who is respectful, caring, humble) would engage in or allow.

**Natural Law or Divine Command.** A person concerned with adhering to the laws of nature or the dictates of a particular divinity would work to discover which course of action (e.g., preserve an existing wetland or create a new one) most closely adheres to the laws of nature or the commands of that divinity.



A caravan of snowmobilers begins a trail ride into Yellowstone National Park (courtesy: USFWS)

Ethics thus consists in this, that I experience the necessity of practicing the same reverence for life toward all with a will-to-live, as toward my own. Therein I have already the needed fundamental principle of morality. It is *good* to maintain and cherish life; it is *evil* to destroy and check life.

For the biocentrist, concern for, or policy regarding, the degradation of wildlife populations is motivated and justified by the effects such degradation might have on *all* individual living things: we ought to be concerned about the loss of wildlife, for instance, because of the effect it has on individual humans, fish, and trees (Box 16.5).

Some environmental ethicists argue that the extensionist approaches discussed above are flawed. The flaws arise from an exclusive focus on the moral consideration of individuals and do not accommodate the moral consideration of ecological collectives such as species, ecosystems, biotic communities, watersheds, or other things that seem important from an environmental perspective. Several theories give reasons why and how ecological collectives ought to have moral value. They include *ecocentrism*, which is related to Leopold's Land Ethic; *extended individualism*, which has ties to James Lovelock's Gaia Hypothesis; and *Deep Ecology*, which originated with philosopher Arne Naess. For people subscribing to these types

### Box 16.5 INCLUSIVE ENVIRONMENTAL ETHICS IN THE REAL WORLD

Though there may be a temptation to ridicule or mock more inclusive moral theories, it is important to pause and appreciate how these theories actually appear and have force in the real world. In 2008, the government of Switzerland amended their constitution in a radically biocentric fashion. In the Federal Ethics Committee on Non-Human Biotechnology paper, "The Dignity of Living Beings With Regard to Plants," which explained the decision, the committee stated, "The Federal Constitution has three forms of protection for plants: the protection of biodiversity, species protection, and the duty to take the dignity of living beings into consideration when handling plants. The constitutional term 'living beings' encompasses animals, plants and other organisms" (Willemsen 2008:3).

In 2008, the government of Ecuador followed suit and

forwarded an arguably ecocentric position, suggesting that nature "has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution," and that "Persons and people have the fundamental rights guaranteed in this Constitution and in the international human rights instruments. Nature is subject to those rights given by this Constitution and Law."

Biocentric gestures even find their way into advertising. On 2 June 1998, the biotech company Monsanto Corporation proclaimed in a full-page ad in the *New York Times* that "We believe in equal opportunity regardless of race, creed, gender, kingdom, phylum, class, order, family, genus, or species. All of life is interconnected . . . without a supporting cast of millions of species, human survival is far from guaranteed" (Rasmussen 2001:205).

of theories, the loss of wildlife populations is also a matter of concern because the health of species as well as specimens, watersheds as well as rivers, and forest ecosystems as well as individual trees matter and are negatively impacted by biological impoverishment.

Most of these theories, extensionist and non-extensionist, are controversial (i.e., contested) and active areas of scholarship. One of the greatest conflicts in recent years is between ecocentrism and forms of extensionism, such as animal welfare ethics. Are humans, for example, morally justified in killing many individual brown-headed cowbirds in order to preserve Kirtland's warblers? Resolving this conflict is one of the great ethical challenges of our day (Box 16.6). Most theories of ethics are also focused on the first of the great questions that define environmental ethics—moral considerability.

Originally, environmental ethicists focused on assessing questions of moral considerability. The future of environmental ethics will focus increasingly on the question of moral significance. The pursuit of this question will be much more applied in nature, and likely will provide ideas for how to solve conflicts such as those that exist between animal welfare ethics and ecocentrism. In principle, a solution to these conflicts begins by appreciating that many things have value; the challenge is in the detail of how to sort out competing moral claims in a world full of them.

*Environmental justice*, which focuses mainly on the distribution of environmental goods and harms, is one area of inquiry that is more applied and more focused on the question of moral significance. *Ecofeminism*, which draws important parallels between systems of oppression that harm nature as well as certain members of the human community such as women, is another area of inquiry that aims to apply environmental ethics more effectively, rather than to theorize about them. Other non-traditional or lay approaches to envi-



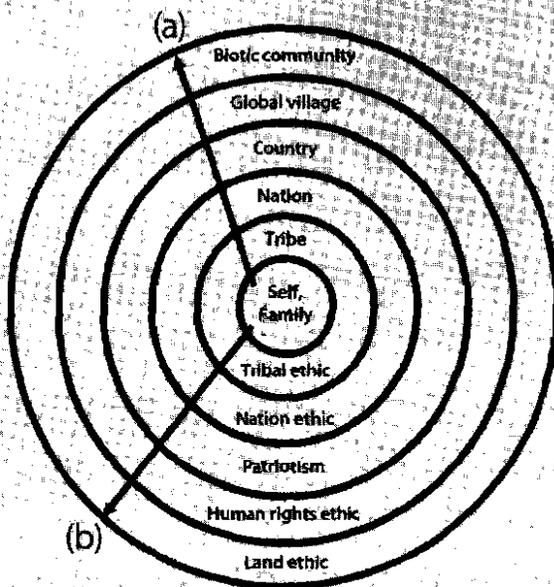
Wildlife management decisions and actions often raise ethical questions. For example, one might ask, "Is it ethical to remove brown-headed cowbirds to save the endangered Kirtland's warbler pictured?" (courtesy USFWS)

ronmental ethics have been powerfully articulated in popular forms accessible for the general population (Box 16.7).

### 16.5. WHAT IS ARGUMENT ANALYSIS?

Understanding ethics and environmental ethics (and therefore issues in wildlife management) begins with understanding arguments. When you peel back the layers of rhetoric, emotional manipulation, scare tactics, and assertions that are presented loudly or repeatedly, core arguments emerge. While irrational behaviors are common and normal, mentally healthy

## Box 16.6 TREE RING ANALOGY



Tree ring analogy

Aldo Leopold (1949:203) points out an important commonality among all ethical systems: "All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts." The above "tree ring" analogy has been used in various forms to illustrate Leopold's point and make sense of our many nested, operative, and competing moral commitments. In the diagram, (a) is the development, driven by our rational faculties, of a

sense of community over time, and (b) is the corresponding ethical attachment that must also develop in order for the level of community in (a) to continue to flourish. As Leopold (1949:203) summarizes this point, "The extension of ethics to [the land] is . . . an evolutionary possibility and an ecological necessity." Charles Darwin (1871, 1981:93), from whom Leopold takes many moral cues, likewise grounded this dual development of society and ethics in biology: "No tribe could hold together if murder, robbery, treachery, etc., were common; consequently such crimes within the limits of the same tribe 'are branded with everlasting infamy.'"

Leopold refers to these layers of ethical obligation as "accretions" or additions to, not replacements for, our previously existing social and moral commitments. As accretions, these additional layers are never smoothly adapted but are always challenging. Hindsight, however, tells us it is both possible and obvious to become more morally inclusive. Eventually such accretions become conventional, and we should at least entertain the possibility that the same is true with accretions of environmental ethics that we have just seen. This image of ethics allows us to address a common reaction to (against?) ethical accretions: the suggestion that we cannot actually live in a world where so many things matter ethically. We should, however, be aware that this same criticism has been offered every time an expansion of ethical commitments has been suggested (e.g., to end slavery, to give women the vote); hence, there is nothing unique about environmental ethics in this regard.

humans also desire and rely on appeals to reason, logic, and argument. Mentally healthy humans express themselves, forge their commitments, and attempt to persuade one another by the rules of reason expressed through argumentation.

Below is a brief sketch of the nature of argumentation. We briefly describe how one goes about laying out an argument and suggest a relatively simple method to think critically about arguments in general. In all fairness, however, facility with presenting and critiquing arguments demands much practice.

**Argument Analysis.** Ethical claims of various sorts are presented as arguments; therefore, it is most effective if they are also addressed as arguments. An argument is a systematic and coherent series of statements aimed at persuasion; it asserts both a claim, or a "conclusion," and supporting evidence, or "premises." Although we often experience ethical arguments informally in writing and speaking, there are rigorous methods to develop these statements into formal arguments and there is a way to formally analyze them as well. Although arguments come in a wide variety of "shapes and sizes," the basic form of an argument is as follows:

- P1. Premise
- P2. Premise
- C1. Conclusion

Some examples might be instructive:

## EXAMPLE 1

- P1. All mammals are warm-blooded.
- P2. Raccoons are mammals.
- C1. Therefore, raccoons are warm-blooded.

## EXAMPLE 2

- P1. Mountain lions live either in Japan, New Zealand, or the United States.
- P2. Mountain lions do not live in Japan.
- P3. Mountain lions do not live in New Zealand.
- C1. Therefore, mountain lions live in the United States.

If you are attempting to address an argument against the need to conserve wildlife habitat (or any argument for that matter) the first thing you should attempt is to lay out the argument in the above fashion. Quite often, the problem(s) with

**Box 16.7 NON-TRADITIONAL ENVIRONMENTAL ETHICS*****Narrative Non-fiction, Aldo Leopold, and the Ethic of Care***

Ideas about how humans ought to live with wildlife and the rest of nature are sometimes articulated in forms other than traditional philosophical prose. The poems of Mary Oliver and Robinson Jeffers and the fiction of Wendell Berry and Edward Abbey also offer important environmental ethical insights. A particularly poignant example of interpreting the work of Aldo Leopold in a more literary fashion comes from philosopher and nature writer Kathleen Dean Moore. Moore (2004:60–67) argues that “Human beings are creatures who are drawn to one another . . . born into networks of dependencies and complications, hidden connections, memories and yearnings, births and rebirths, fierce, mysterious love—a web of relationships.” “These are the facts,” she writes, “of the greatest moral importance: If we value caring relations, then it makes sense that we commit ourselves to act in ways that strengthen and reweave and sustain the webs of relationships we value.” This “ethic of care” also extends to the land or what Aldo Leopold refers to as the “biotic community,” since we are also born into and dependent upon “relationships, not just with human beings, but with the land . . . the beautiful, complicated web of sustaining connections.”

Moore writes, “I think the ethic of care has it right: The care we feel for people is the ground of our moral responsibilities toward them. And I think Aldo Leopold has it right: Our moral responsibility to care for the land grows from our love for the land and from the intricate, life-giving relationships between people and their places. Then does

not this follow?—that our moral calling must be to reknit and cherish healthy webs of connection not only to people, or not only to land, but also to families, human communities, landscapes, and biotic communities—all our relations. What we need next is a new ethic—call it an ‘ecological ethic of care,’ call it a ‘moral ecology.’ It’s an ethic built on caring for people *and* caring for places, and on the intricate and beautiful ways that love for places and love for people nurture each other and sustain us all.”



*Aldo Leopold, photographed by son Starker Leopold while writing at the shack (courtesy of the Aldo Leopold Foundation; [www.aldoleopold.org](http://www.aldoleopold.org))*

an argument become immediately clear when it is laid out in such a fashion, and quite often it is discovered that there is no argument at all—a fact that can be masked when the claim is not presented as a formal argument. Remember, arguments *must* have both premises (“evidence”) and conclusions (“position”) to be arguments; do not be fooled by conclusions just cleverly restated as premises. If any claim lacks supporting evidence, there is no argument. To ascertain whether or not an argument is present, it is helpful to run what can be called the “test of opposition.” If you encounter a claim and are wondering whether or not there is an argument present, simply ask yourself, “Can I assert exactly the opposite claim and have no more reason to believe one over the other?” If there is no more reason to believe the opposite of a claim than there is to believe the claim itself, then no argument exists at present and you are advised to ask the person forwarding the original claim to provide support for that claim.

If an argument actually is present, however, then the method for critiquing an argument is fairly straightforward. An argument can only be wrong in one of two ways (theoretically bad arguments can be wrong on both accounts, but

likely that would mean the argument is barely intelligible). A critique of an argument would point out that there is either

1. a mistake in a premise (a factual mistake of sorts), or
2. a mistake in inference (a mistake in going from premises to conclusion; assuming that the conclusion follows from the given premises, when in fact it does not).

In sum, it cannot be the case that all of the premises in an argument are true, and that the conclusion follows from the premises, but that the conclusion then is false. If the conclusion of an argument is believed to be false, then your obligation is to demonstrate why the argument is faulty by employing one of the two methods above. Again, a couple of examples might prove helpful. Consider the following arguments:

**EXAMPLE 1**

- P1. If something is not occurring then we should not worry about it.  
 P2. Anthropogenic global climate change is not occurring.  
 C1. Therefore, we should not worry about anthropogenic global climate change.

In this argument no problem exists with inference. The conclusion most certainly follows from the premises. If you are suspicious of this argument, it must be because of doubt in the truth of one (or more) of the claims made in the premises. If you wish to reject the conclusion of this argument, you must do so on the basis of a mistaken premise. In fact, in this argument, you might challenge the truth of Premise 1 on the basis that it is not clear that you should never worry about something that is not occurring, and you would then provide counter-examples to demonstrate how it might be wise to be concerned about and attempt to address potential threats to your health or to the safety of your home even if you are not currently ill or your home is not currently on fire or being robbed. You might also challenge Premise 2, both on the basis that it is far from clear that anthropogenic global climate change is not occurring or even with the claim that Premise 2 is patently false—you would then go on to make the opposite claim to refute such an argument.

#### EXAMPLE 2

- P1. Crocuses bloom in the spring.
- P2. The month of April is a spring month.
- C1. Therefore, Highway 52 runs north-to-south through Michigan.

This is clearly a bad argument, but not because either of the premises is mistaken. Both premises are true. It is a bad argument because the conclusion simply does not follow from the premises provided. If the conclusion stated "Therefore, crocuses may bloom in April," then a sound argument exists. Notice, however, that because there are other spring months, if you concluded "Therefore, crocuses will bloom in April" you would again be making a bad argument on the basis of a mistaken inference. Of course most (but unfortunately not all) arguments that have a mistaken inference are not so blatantly wrong as the example provided; they are often more like the modified conclusion that "Crocuses will bloom in April."

In short, when attempting to address arguments, the method to follow is to

1. lay out the argument(s),
2. assess the premises for their truth-value,
3. assess the connection or inference between premises and conclusion, and
4. lay out the counter-argument using 2 and 3.

A final note on assessing and evaluating arguments: you greatly improve your chances of presenting good arguments and either avoiding critique or being able to fend off critique if you learn to become your own toughest critic. Examine your own arguments rigorously and question your premises as you would those of others, and forever attempt to consider the response of a would-be dissenter. Always hold in your mind as an ideal the following general rule regarding the strength of arguments:

An argument's strength is *not* measured by the fact that it is persuasive to someone who already believes the conclusion of the argument. Rather, the strength of an argument

is measured by the force that it has over those who *dissent* from the conclusion of the argument.

## 16.6. APPLYING ETHICS TO WILDLIFE MANAGEMENT

Wildlife management is essentially environmental ethics in action, inasmuch as both focus on assessing propositions about how humans should (or should not) interact with the natural world. Moreover, wildlife management is only justified when it is supported by reasonable ethical arguments. The application of environmental ethics to wildlife management involves extending argument analysis to public discourse associated with wildlife management.

### 16.6.1. A Preliminary Principle

Handling the ethical dimensions of wildlife management requires understanding how ethical knowledge is one of several distinct kinds of knowledge necessary for wildlife management to be ethical and effective. Clearly, wildlife management depends on knowledge from scientific fields such as ecology, sociology, and economics; but wildlife management also depends on, or presupposes, ethical arguments that always consist of two kinds of premises: ethical premises and scientific (or descriptive) premises intended to describe how the world is. Assessing the truth-value of descriptive premises requires scientific knowledge from various scientific fields (both biological and social), and assessing the appropriateness of ethical premises requires ethical knowledge.

There is value in comparing and contrasting contributions of each kind of knowledge. Obviously, ecology contributes knowledge about the environment. As critical as such knowledge may be, it is insufficient on its own for determining what management action *should* be taken. Consider this ecological knowledge: (1) Prior to persecution by humans, wolves inhabited much of the northeastern United States, and (2) today, coyotes seem to fill the approximate ecological niche once filled by wolves in that region. This ecological knowledge cannot determine whether it would be right to reintroduce wolves into the Adirondack region of New York. No amount of ecological knowledge, by itself, could determine the appropriateness of such a reintroduction. To make such a decision, wildlife managers also need to be informed by sociocultural knowledge, such as knowing the stakeholder acceptability of reintroducing wolves to the region. Economic knowledge is also valuable—knowledge about the effect that wolf reintroduction might have on portions of the economy associated with tourism or deer hunting (e.g., license sales, retail purchases, and travel). Science is primarily concerned with evaluating propositions about how the world was in the past (e.g., wolves used to live in the Adirondacks), how it is today (e.g., many people oppose wolf reintroduction), or how it will be in the future (e.g., wolf reintroduction might reduce the number of people who spend money on activities related to deer hunting, but increase ecotourism as people seek opportunities to see or hear wolves).

Though critically important, descriptions of how the

world was, is, or will be—no matter how abundant or reliable such knowledge is—cannot by themselves determine whether a wildlife management action is ethically appropriate. One must also identify and evaluate the appropriateness of ethical premises that underlie arguments for or against some wildlife management action. For example, consider this argument:

- P1. Wolves—through their predation on deer—once performed a vital ecological service in the Adirondacks, and human exploitation caused wolves to go extinct in this region.
- P2. Coyotes and human hunting on deer now perform the vital ecological service that wolves once provided.
- P3. Many people oppose wolf reintroduction.
- P4. Wolf reintroduction would likely harm aspects of the local rural economy in the Adirondacks.
- P5. The primary value of a species is its ecological function.
- C1. Therefore, we should not reintroduce wolves, because doing so comes at a cost (social and economic) but does not offer much benefit (because coyotes and hunters already do that for which wolves would be valued).

For the moment, take for granted that the premises are all true or appropriate. The conclusion is not determined by Premises 1 through 4, which represent scientific descriptions of the world. The conclusion is determined by Premise 5, which is the ethical premise. To better see how, evaluate the argument more carefully. First, consider that Premise 5 may be inadequate and might be replaced with this alternative:

- P5a. Species are intrinsically valuable. They are valuable not because of services they perform but just because they are an important manifestation of life.

If Premise 5 is replaced with Premise 5a, the conclusion is not justified by the argument. (Note: The apparent failure of this argument is not sufficient to show that wolves should be

reintroduced. More work would be required to assess that conclusion.) The argument above is also likely missing premises along these lines:

- P6. It is wrong to enact policies that diminish local, rural economies.
- P7. It is wrong to enact policies that oppose public opinion.

Recall, a conclusion cannot introduce ideas that are not already entailed by the premises. Because the conclusion refers to the social and economic costs of wolf reintroduction, the argument must then contain premises speaking to these issues. The introduction of Premise 6 and Premise 7 raises the question, are they reasonable premises? They probably are not. If Premise 6 were true, then it might be wrong to criminalize prostitution or marketing tobacco products to young people. Premise 6 requires revision to account for the fact that we do not unconditionally promote local, rural economies. Premise 7 is also false. Great failures in management have occurred by allowing policies that were unwise but widely supported by stakeholders (e.g., overfishing of Atlantic cod). Sometimes leadership is required to promote policies that are ethically sound but unpopular. (Note: what has been outlined here is one approach to argument analysis. For an even more detailed treatment of argument analysis see Copi and Cohen [2005]. For a detailed treatment in the context of natural resource management see [www.conservationethics.org](http://www.conservationethics.org).)

Even this simple evaluation shows how the appropriateness of wildlife management hinges on a careful understanding of the underlying ethical premises. Table 16.1 shows how several of the most important issues in conservation require complex ethical consideration.

*Ethics and sociology.* These domains of knowledge are similar in that both focus on values. They differ, however, in that sociology is more focused on understanding the values and attitudes various groups of people hold, the behaviors they exhibit, and how their values, attitudes, and behaviors

Table 16.1. Issues in conservation that require complex ethical consideration

Conservation concern	Related ethical issues
Ecosystem restoration Removal of exotic species	<ul style="list-style-type: none"> <li>• Is the goal to restore a particular state of an ecosystem (e.g., old growth) or the processes that lead to "natural states"?</li> <li>• How do we know when the moral cost of killing individuals exceeds the moral benefit of removing an exotic species?</li> <li>• Are we removing the exotic species for our benefit or the benefit of the ecosystem?</li> <li>• Is it wrong to incur the moral cost of removing exotic species when so little is done to prevent their arrival in the first place?</li> </ul>
Population viability	<ul style="list-style-type: none"> <li>• Is genetic diversity important only inasmuch as it affects population viability, or is it also valuable for its own sake, as another manifestation of biodiversity?</li> <li>• How much risk is too much risk?</li> </ul>
Hunting	<ul style="list-style-type: none"> <li>• Does our need for the resource outweigh the cost of affecting nature?</li> <li>• Is a hunt ethical if population health is unaffected, but there is no chance of achieving the management goal (e.g., controlling abundance)?</li> <li>• Where should the burden of proof lie: hunt unless there is reason not to, or do not hunt unless there is reason to do so?</li> </ul>
Sustainable utilization: "meeting human needs in a socially just manner without depriving ecosystems of their health"	<ul style="list-style-type: none"> <li>• What do we mean by "human need"?</li> <li>• What is a "healthy ecosystem"?</li> <li>• What counts as the socially just use of resources?</li> <li>• Do we care about ecosystem health only because of the benefits to humans, or also because ecosystems are intrinsically valuable?</li> </ul>

may change over time. Ethics is more focused on using argument analysis to assess what values, attitudes, and behaviors people *ought* to exhibit. Holding some value or exhibiting some behavior does not mean you *ought* to do so. This distinction between “is” and “ought” raises some difficulties. On one hand, equating “how we are” with “how we ought to be” introduces all of the problems associated with naturalism. On the other hand, it cannot be ethical to expect behavior that is impossible to exhibit. To put it pithily: although *ought* implies *can*, *can* certainly does not imply *ought*. Although a policy prescribing wolf hunting would be contingent upon the ability of the wolf population to sustainably withstand a hunt, the fact that the population *can* withstand a hunt does not imply that we *ought* to hunt wolves.

*Ethics and Economics.* The relationship between ethics and economics is not simple. Our inspection of Premise 6 in the above argument suggests that ethical values often override concerns for economic growth. Many environmental protection laws entail some kind of curtailment of economic activity (e.g., U.S. Endangered Species Act and the U.S. Clean Air and Water Acts). Remember from Chapter 6 that economics is a social science that describes how society meets competing demands in the face of limited resources.

Economics strives to understand how economies work and how economic agents interact, where economies are systems involving the production, distribution, and consumption of goods and services, and economic agents are the people and institutions involved in those economies. Economics aims to describe how economies work, not how they *ought* to work. It is appropriate to ask, “How *ought* an economy to work?” However, that question requires careful treatment of ethical knowledge. The purpose of economics as a science is more or less limited to making reliable statements of this nature: *If we interact with these limited resources in these ways, then our economies very likely will respond in these ways.* It is more a matter of environmental ethics than economics to understand what counts as a right or wrong way to interact with wildlife and whether the projected economic outcomes are good or bad, in the ethical sense.

*Ethics, Laws, and Politics.* Although political-legal knowledge is also necessary to understand legal and political feasibility of wildlife management policies, this knowledge cannot by itself determine whether decisions made in wildlife management are right or good. A complex relationship between ethics, politics, and law rises from a few uncontroversial principles:

1. In a democratic society, laws and politics generally tend to arise from that society’s ethical dispositions, rather than vice versa.
2. Following the law, however, does not adequately ensure that one is behaving ethically. That is, not all cases of rule-breaking represent unethical behavior (e.g., the civil disobedience of Rosa Parks, Martin Luther King, Jr., and Gandhi), and not all cases of rule-following are ethical (e.g., the defense or deflection of war crimes charges by referring to following orders from one’s superiors).

3. Winning a political battle is not the same as being right. Many political battles are won because the winning side had more financial resources or political power.

These principles raise difficult and unavoidable questions about how a wildlife professional *ought* to act when there is a conflict between ethics and the laws or politics of wildlife management.

### 16.6.2. Ethical Discourse

Understanding the distinctions between various kinds of knowledge is critical for making wildlife management decisions, as is argument analysis for synthesizing knowledge. Implementing these principles in a process involving some kind of public discourse is called ethical discourse, which is best understood by describing some operational steps in the process and by comparing the process to political discourse. Many of the chapters in this book examine the role of stakeholder participation in wildlife management. The ethical discourse described here is another example of engaging in thoughtful deliberations as part of the management process.

#### 16.6.2.1. Step 1: Catalogue and Inventory Reasons for or against a Particular Management Intervention

That is, identify all the reasons that each kind of stakeholder has for or against the management intervention (objective and related action) under consideration. Prejudging the reasonableness of various reasons should be held to a minimum. The most important mistake that can be made at this stage is overlooking a reason that is held important to a stakeholder. Beware: stakeholders sometimes offer one or more stated reasons but are motivated by other unstated reasons. Stated and unstated reasons are both important. It is also useful to categorize the reasons into sets of related reasons either supporting or opposing the management intervention. (See Nelson and Vucetich [2009] as an example of this kind of categorization as it applies to the debate about whether scientists should be advocates.)

#### 16.6.2.2. Step 2: Argument Construction and Assessment

Now treat each reason as the conclusion to an argument that has not yet been articulated. The process can begin by articulating, in brainstorm-like fashion, facts and ideas that seem related to the conclusion. Then arrange these facts and ideas as premises for the conclusion. Upon being roughly constructed, the argument should then be assessed for missing premises. Identification of all the missing premises is important because doing so often frees an argument of mistakes in inference or at least draws attention to mistaken inferences. These steps look much like the steps we took as we began developing the wolf reintroduction argument above. The detection of missing premises is often difficult and may require a person with experience in argument analysis.

From this point, argument assessment can follow one of three strategies. Strategy 1 holds the conclusion fixed and judges whether the premises necessary for supporting the con-

clusion are valid. Strategy 2 revises invalid premises to make them valid, and judges whether the conclusion is supported by the revised premises. Strategy 3 revises invalid premises to make them valid, and then revises the conclusion to the extent necessary to keep the argument sound and valid. Strategies 1 and 2 are useful for assessing whether a reason for or against some management proposal is justified (in the sense that it is supported by a sound and valid argument). Strategy 3 is useful for discovering appropriate arguments when Strategies 1 and 2 seem to be revealing only inappropriate arguments.

Strategy 3, which involves revising conclusions to match revised premises, very often leads to surprising outcomes. An argument that, at first glance, seems to support some management intervention can often end up offering good reason to oppose it. For this reason, and because argument analysis is technically difficult (that is, it is easy to think you are doing it correctly when, in fact, you are not), it is important that those engaged in ethical discourse are willing to change their minds (perhaps by 180°) about the appropriateness of a management intervention (this willingness is known as intellectual honesty). That is, the purpose of ethical discourse is not merely to confirm what you already believe but rather to discover what you should believe. In this way, we assert that ethical discourse is similar to the scientific process.

*Assessing scientific premises.* When all the missing premises seem to have been identified and articulated, the appropriateness of each premise should be assessed. Presuming the argument contains only premises necessary for supporting the conclusion, the discovery of even a single inappropriate premise is often enough to determine that the argument is inappropriate.

Begin assessing premises by identifying the kind of knowledge each premise represents, and the kind of person qualified to pass judgment on that premise's validity. An ecologist, for example, would tend to be most qualified to judge the validity of ecological premises.

As described in Chapter 8 on decision making, treatment of scientific uncertainty is important at this stage. Consider, for example, the premise: *Killing cowbirds benefits warbler populations.* If the premise is associated with one or more of the types of uncertainties (discussed in Chapter 8) then the premise is inappropriate. In this example, the premise might be made true by replacing "benefits" with "will benefit in some cases," or perhaps by rewriting the premise to begin with: *Though it remains uncertain, there is some reason to expect that killing cowbirds will benefit this particular warbler population.*

Sometimes a premise is true based on accepted scientific information, but not accepted among all stakeholders. Consider, for example, *human activities play an important role in global climate change* as a premise in some argument about climate policy. Climate science has the purview to judge the premise's validity, and climate science indicates the premise is almost certainly true. Nevertheless, some American citizens do not accept the premise as true. These opinions are not a basis for judging the premise to be false; however, they are likely a basis for adding a new premise to the argument: *Many Americans do not believe human activities play an important role in global warming.* In cases like these, careful analysis is required to understand

how the two premises interact to affect the argument's conclusion. Recall that the purpose of ethical discourse is not so much to assess whether a policy would be politically difficult to pursue but to judge what policy would be ethically justified.

In cases where science and public perception are in conflict, the argument likely will require a premise that speaks to the conflict. Consider, for example, the validity of a premise such as this: *Agencies with the authority to act without widespread public support should pursue policy based on scientists' perceptions of scientific claims (not perceptions of the general public), but they should pursue such policies in a manner that is sensitive to public perception.* This premise suggests public perception affects how a policy should be pursued but not whether it should be pursued. Now consider this premise: *Agencies should pursue policies only when they receive widespread public support.* The word "should" in each of these premises indicates that both premises are ethical premises. These premises might even be thought of as conclusions to an ethical argument that itself requires articulation and analysis.

*Assessing ethical premises.* The evaluation of some ethical premises is relatively straightforward: they are widely accepted (or rejected) for good reasons that are well-understood. In such cases, the value (and hard work) of ethical discourse is when it exposes how a reasonable-sounding conclusion is actually supported only when one accepts ethical premises that are clearly inappropriate. For examples of this circumstance, see Vucetich and Nelson (2007) and Nelson and Vucetich (2009).

In some cases, however, the appropriateness of an ethical premise is difficult to judge. Sometimes an ethical premise seems to rest on solid reasoning but is not accepted by very many of the stakeholders, or vice versa. Should the lack of support be taken as a sign that the purportedly solid reasons are not actually so solid? In such cases, it may be useful to treat the ethical premise as a conclusion to an argument that requires articulation and evaluation.

Difficulties also arise when two ethical premises seem appropriate but also seem to conflict with one another. Consider, for example, the premises *Kirtland's warbler represents an intrinsically valuable species* and *The lives of individual cowbirds are intrinsically valuable.* One premise suggests cowbirds should be killed if they threaten the viability of Kirtland's warblers, and the other suggests they should not be killed. Using insights from human dimensions inquiry, wildlife professionals might anticipate such an ethical conflict arising among stakeholders. One way to handle this conflict is for professionals to use argument analysis to explain how and why one premise should override the other in this particular circumstance. The result of this process may be to resolve the conflict or it may be to clarify precisely how the stakeholders disagree. Either outcome represents ethical progress. Further inquiry into stakeholder acceptability of management actions, through use of interviews or questionnaires, would then help affirm the outcomes of the argument analyses.

### 16.6.2.3. Step 3: Synthesis

The result of Step 2 is to judge each argument as being appropriate, inappropriate, or possibly undetermined. Knowing

that a particular argument is inappropriate does not mean that the conclusion of the argument is false. It remains possible that some other argument would justify the conclusion. Consider for example, this conclusion: *We should not drill for oil in Arctic National Wildlife Refuge (ANWR) because it would endanger local caribou populations.* Argument analysis might show that this conclusion (not drilling in ANWR) cannot be supported for that reason. However, the inappropriateness of that conclusion does not mean drilling in ANWR is a good or right thing to do. Another argument—about how exploitation is inconsistent with the principles of a protected area even if the exploitation has minimal effects on the environment—might be able to show that such drilling would be wrong. For reasons such as this, the final step in ethical discourse is to consider the management action in the context of all the arguments that were analyzed (e.g., Nelson and Vucetich 2009).

These three steps of ethical discourse may be implemented in various ways. For example, a research project might be conducted by a few experts and then vetted by peer-review and scientific discourse (e.g., Vucetich and Nelson 2007, Nelson and Vucetich 2009) or by a larger group of people—experts and lay stakeholders alike—engaged in a workshop-like venue. Such workshops are beginning to occur, led by organizations such as the Center for Humans and Nature, the Aldo Leopold Foundation, and the Conservation Ethics Group.

The potential limitation of working with a smaller group of select people is misunderstanding or neglecting reasons that are important but not well-appreciated by that group. The potential limitation of working with a larger group is that larger groups are more likely to include participants who do not appreciate or are not proficient with the principles of ethical discourse. In either case, the success of ethical discourse depends on the participants' collective knowledge of the issue and skill in argument analysis; and, in either case, the legitimacy of ethical discourse is judged by others' ability to find fault with the logic of the analysis.

### 16.6.3. Ethical and Political Discourse

Despite their similarities, ethical discourse and political discourse differ importantly from one another. Political discourse aims for compromise and concession until all stakeholders agree that the proposed management action is something with which they can live. The purpose of political discourse is to make political progress and avoid civil chaos. Political discourse is typically constrained by the timing of an imminent decision. This circumstance makes participants in political discourse focus on winning rather than on being right. By contrast, ethical discourse aims for basic agreement about an issue. Ethical discourse aims to be "right" rather than to win. Such discourse can make valuable insights during formulation



The Arctic National Wildlife Refuge is critical habitat for a vast herd of caribou (courtesy USFWS)

of objectives (both fundamental and enabling) early in the management process. Recall an early dilemma proposed in Chapter 1, which indicated that if you are not working on the correct things, then the more you try to conduct your work "right," the more wrong you become! Consideration of ethics and engagement in ethical discourse can help reveal what are the right things on which to be working.

## SUMMARY

This chapter explored ethics and environmental ethics as a theoretical and practical human dimension of wildlife management. The practical side was largely about constructing and assessing arguments that represent real-world issues in wildlife management. The theoretical side focused on the tool by which those theories (stated as ethical premises) are evaluated. The introduction we provided here was merely a road map to conduct deeper ethical thinking about decisions in wildlife management.

- Although ethical discourse is not a panacea for solving all environmental challenges, wildlife professionals can increase their effectiveness by learning the theory and practice of ethical discourse. It provides an alternative to, or complements, existing political discourse, which (from the perspective of engaged stakeholders) is more about winning and losing than gaining insight into what is right or wrong.
- Ethics is a discipline whose focus is analysis of ethical propositions. The fundamental distinction between ethics and other social sciences is that social science primarily is concerned with the analysis of descriptive propositions about human values, whereas ethics is concerned with the analysis of prescriptive propositions about human values.
- Although there are many ways to categorize the field of environmental ethics, it is centrally concerned with two

related topics: (1) *moral considerability*; that is, what sorts of entities deserve membership in the moral community and what justifies that membership? and (2) questions of *moral significance*; that is, how ought humans to behave in an inclusive moral community?

- In this regard, though with an added moral bent of right and wrong, ethical discourse is similar to science in that it follows a systematic and rigorous process of logical thought. Ethical progress and scientific progress are both most likely to occur when the minds involved are open to reason.
- Attending to the ethical dimensions of wildlife management increases the ability of wildlife professionals to have a reliable means of identifying the correct issues to go to work on, to reach the correct conclusions, and to better achieve desired impacts. It will also help managers to be ethically consistent from one situation to another, thereby improving their credibility with peers, partners, stakeholders, and decision makers.

## Suggested Readings

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