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### **Conservation, Animal Rights, and Human Welfare**

#### **A Pragmatic View of the “Bushmeat Crisis”**

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#### **Ethical Fault Lines in Conservation?**

IN POPULAR DISCOURSE there is often little distinction made between conservation and animal rights/welfare; both are seen as expressing an ethical concern for nature, whether this attitude is directed specifically at whales or wetlands, rhinos or rain forests. While there are probably many explanations for this generalized lumping of ethical regard, the undifferentiated view of animal and conservation ethics is doubtless supported by the galvanizing force of particular cases of wildlife abuse and destruction. For example, conservationists and animal rights/welfare proponents of every stripe would presumably condemn the brutal slaughter of dolphins in Taiji, Japan, depicted in the gripping 2009 documentary, *The Cove*; the wanton 2007 killing of ten mountain gorillas in war-torn Virunga National Park (Democratic Republic of Congo [DRC]); the ongoing destruction of tigers for the illegal wildlife trade; and so forth. While different underlying reasons may be offered for such judgments (reflecting varying ethical orientations to individual animals, or marine mammals, or primates, or perhaps endangered species, etc.), these deeper philosophical differences clearly do not always preclude conservationists and animal rights proponents from holding the same normative view that the killing of the dolphins, gorillas, and tigers is morally wrong.

This “compatibilist” understanding of environmental and animal ethics, moreover, finds additional reinforcement in the language of those wildlife conservation organizations that combine animal welfare and conservationist messages. The Sea Shepherd Conservation Society and Defenders of Wildlife, for example, often make impassioned ap-

peals to stop various acts of cruelty to wild animals alongside more traditional conservation arguments geared toward the protection of biological populations, species, and habitats. Similarly, many animal welfare groups, such as the Humane Society of the United States, have developed programs that overlap with key aspects of the conservation agenda, such as antipoaching campaigns and efforts to slow (or halt) wildlife habitat loss. In the academic community, recent high-profile events such as the “Compassionate Conservation” conference held in the United Kingdom in 2010—sponsored by the Oxford-based wildlife conservation research unit WildCRU and Born Free (a hybrid animal welfare/conservation organization)—is further evidence of this accommodating view toward the well-being of individual animals and the conservation of threatened species and ecosystems.

Yet despite this there has long been a deep division between those who identify primarily with the ethical convictions and policy goals of conservation and those who adopt the ethical view and agenda of animal rights/welfare. A good illustration of this rift may be seen in a recent interchange over the animal welfare–conservation relationship in the journal *Conservation Biology*, the flagship journal for conservation science and management in the United States. There, Perry and Perry (2008) argued for greater cooperation among animal rights supporters and wildlife conservationists, pointing out that both groups are committed to promoting animal well-being, even if they emphasize different understandings of this good (i.e., individuals versus populations/species). They suggested, furthermore, that both groups have important policy goals in common, including preventing the introduction of invasive species (thus avoiding negative ecological impacts and the need for lethal control), and regulating more stringently the international exotic pet trade, which is widely seen as a major conservation problem and a welfare issue (Perry and Perry 2008, 32). Yet in his reply to their paper, Michael Hutchins (of the Wildlife Society) knocked away the olive branch:

It would be wonderful if we could all get along, but it is time to recognize that some ideas are superior to others because they clearly result in the “greatest good.” As a conservationist, I reject animal rights philosophy. . . . It is time to face up to the fact that animal rights and conservation are inherently incompatible and that one cannot be an animal rights proponent and a conservationist simultaneously. To suggest otherwise only feeds into the growing public confusion over animal rights, welfare, and conservation and their vastly different implications for wildlife management and conservation policy. (Hutchins 2008, 816)

Hutchins correctly notes that there is a significant distinction to be made between the relatively more moderate claims of “animal welfare” advocates, who

typically seek to reduce animal suffering in domestic and wild contexts (often looking to balance overall harms and benefits rather than to allow individual interests to “trump” the good of the many), and “animal rights” proponents, who can take a far more abolitionist line on the fair treatment of individual animals in a manner analogous to certain core ethical notions of human personhood (see, e.g., Regan 2004). Yet the larger message is nonetheless clear—namely, that right-thinking conservationists should reject or at least significantly deprivilege the zoocentric (i.e., individual animal-centered) claims coming from many defenders of the interests and dignity of individual animals, especially in cases where these positions run counter to the traditional population-centered, species-centered, and ecosystem-centered goals of wildlife managers and conservation scientists. This position is not that surprising given that the dominant scientific, ethical, and policy orientation in biological conservation typically focuses on promoting the viability of populations and species, or the health, integrity, and/or resilience of ecosystems.

The philosophical differences between conservation or environmental ethics and animal rights/welfare were laid bare in the early 1980s when environmental ethicists like J. Baird Callicott (1980) argued that “true” environmentalists could not be animal liberation supporters. Callicott’s case against animal ethics was joined by subsequent work by environmental philosophers, including Mark Sagoff (1984) and Eric Katz (1991), who also underscored the policy divergence of animal-centered approaches and more ecologically oriented environmental policies. At the root of the philosophical dispute is the distinction between individualism and holism in both ethical accounting and managerial concern: the population-system-process orientation of conservation policy and environmental management appears to run in the opposite direction of the individualistic orientation of zoocentric ethics and activism, which again we may organize into two primary strains: (a) animal welfare/liberation; and (b) animal rights.

The animal welfare position is primarily concerned with the human infliction of suffering on individual animals able to experience states of pleasure and pain, or those creatures that are sentient. According to the leading philosopher of the movement, Peter Singer, sentient beings have *interests*; these interests must be taken into account when we make decisions affecting their well-being (to not do so would be to demonstrate a morally arbitrary preference for human interests over the equivalent interests of nonhumans). Singer has argued that a pervasive “speciesism” grips modern society, a discriminatory attitude parallel to racism or sexism that underlies the ethically indefensible neglect of animals’ interests simply because they are the interests of animals rather than humans (Singer 2002).

A more stringent animal-centered or zoocentric view may be found in the

“animal rights” approach of Tom Regan, whose position shares Singer’s ethical individualism but finds its philosophical grounding in the rights tradition rather than utilitarianism (the moral framework that informs Singer’s animal welfare views). For Regan, those animals that are self-conscious and are able to form beliefs and desires deserve direct moral consideration (i.e., they are not “mere means” as Kant would have put it). According to Regan, such individuals are “experiencing subjects of a life” (a class including humans but also all “mentally normal mammals of a year or older”), and are thus “ends-in-themselves” that deserve respect; they are not to be valued as sources of human satisfaction or amusement (Regan 2004). Regan’s position is potentially more demanding than Singer’s given that the rights-based approach resists the method of utility maximization, which could allow a position such as Singer’s to support harming animals if such actions would be expected to promote, on balance, greater benefit than harm, all things—or rather, all interests—considered.

While it is clear that strong philosophical and managerial distinction between conservation and animal rights/welfare remains compelling for some, as mentioned above it has never accurately captured the reality of many organizations’ and individuals’ ethical and policy commitments to both the reduction of animal suffering and the conservation of species and landscapes. Perhaps because of this, subsequent philosophical work following the early “line in the sand” drawn by environmental philosophers has softened the conflict to some degree, and we have seen the emergence of conciliatory projects that have tried to build bridges between the views and goals of animal advocates and environmental holists (e.g., Varner 1998; Jamieson 1998). Even Callicott, for example, would eventually retract his more aggressively antizooocentrist arguments in an effort to embrace an accounting of animal interests under his own multitiered model of environmental holism (Callicott 1998).

### **Converging Values in the Bushmeat Crisis**

The intersection of animal rights/welfare and conservation ethics is particularly intriguing in the case of what has become known as the “bushmeat crisis,” a subject of increasing concern in both the nature conservation and development communities (Bennett et al. 2007; see also Peterson, this volume). The bushmeat problem raises an intricate complex of ecological, economic, cultural, and, most fundamentally, ethical challenges regarding the survival of species and the welfare of animals, as well as the health and livelihood of some of the poorest and most vulnerable peoples on the planet. “Bushmeat” is an African word for the meat of terrestrial wild animals harvested for household consumption and/or for commercial sale in local and regional markets. It is a nonspecific term that covers a wide array of hunted species, including duikers

(forest antelopes), cane rats, wild pigs, monkeys, chimpanzees, and gorillas. The level of off-take of wild animals for meat varies by ecological type, nation, and continent, but the highest levels of harvest take place in the tropical forests of West-Central Africa, with significant exploitation of forest-dwelling species for wild meat consumption also occurring in many parts of Asia and South America (Brown and Davies 2007, 1).

Comparatively inexpensive and plentiful, bushmeat is a primary source of animal protein in Central Africa; in the half-dozen countries that comprise the Congo Basin, for example, approximately 80 percent of animal protein is derived from wildlife and as much as one million metric tons of bushmeat is consumed each year, the equivalent of almost four million cattle (<http://www.bushmeat.org>). Demand for bushmeat in Central and West Africa, moreover, is growing, especially among urban populations—a trend resulting from the confluence of the lack of alternative protein sources and cultural tastes for wild meat, among other drivers. This has stimulated the emergence of a large and often lucrative trade in wild meat in Africa, South America, and Asia, with estimates of the economic value of bushmeat across countries in West and Central Africa ranging from US\$ 42–205 million (Davies 2002) and more than US\$ 175 million per year in the Amazon Basin (Rao and McGowan 2002). In many areas, hunting for trade in urban markets is an important source of household income, especially in the absence of alternative livelihood opportunities (Kümpel et al. 2010).

Although people have been hunting and consuming bushmeat for thousands of years, in recent times these practices have put greater pressure on tropical wildlife as a result of rapid (human) population growth in Africa and Southeast Asia, as well as the loss of habitat via agricultural conversion and settlement, rampant road building that hastens access to forest interiors, and a host of advances in hunting technology (e.g., shotguns, outboard motors, etc.) (Bennett 2006). Indeed, the encroachment of traditional industrial forces in tropical forests such as logging and oil exploration has been linked to the surge in the commercial bushmeat trade as these activities not only create access to remote forest wildlife via road construction but also facilitate transportation of bushmeat to urban markets—and stimulate local sales at or near the harvest point as hunters sell bushmeat directly to resource industry staff in concessions (Thibault and Blaney 2003; Peterson 2003; Poulsen et al. 2009). These developments, and the rise of a commercial market in bushmeat that has dramatically magnified harvest rates beyond those that would characterize subsistence off-take, have been an increasing source of concern over the past two decades among conservationists who have come to see hunting as a major, if not primary, threat to wildlife populations across the tropics (Bennett et al. 2002).

Precise measures of the sustainability of wildlife harvests in bushmeat regions are difficult due to both the bioecological complexity surrounding the calculation of sustainable exploitation rates and the lack of adequate data for many wildlife populations of concern. Nevertheless, conservation scientists and advocates generally agree that hunting rates exceed sustainable levels across many parts of the tropics, especially in African rain forests, with dozens of populations already declining or in danger of going locally extinct (e.g., Robinson and Bennett 2002; Fa, Peres, and Meeuwig 2002; Nasi et al. 2008). In the Congo Basin, an estimated 60 percent of mammalian species are hunted unsustainably (Chivian and Bernstein 2008, 43). A recent study conducted by TRAFFIC, the wildlife trade monitoring network, suggests that the nation of Cameroon appears to be exceeding an estimated sustainable off-take of wildlife by more than 100 percent, with Gabon and the Republic of the Congo also approaching this level (Ziegler 2010).

Furthermore, the relatively low level of animal production of tropical forest ecosystems magnifies the impact of hunting in these areas. Intact tropical rain forests, for example, produce only one-sixth of the mammal biomass of tropical grasslands; most of that production is in primates (Bennett 2006). Primates tend to be scarce and breed slowly, making them particularly vulnerable to bushmeat hunting and at great risk of local extinction (Bennett et al. 2007; Nasi et al. 2008). Although up 80 percent of the population of certain small, fast-breeding animals, such as elephant shrews and agoutis, can be harvested sustainably every year, less than 4 percent of primates can be taken without a significant risk to population viability (Bennett 2006, 108). The recent emergence of a “luxury bushmeat” market in lemur meat, taken from Madagascar’s iconic primate, has only added to conservationists’ concern about the dramatic biological and ecological costs of the trade (Barrett and Ratsimbazafy 2009).

In addition to the decline of particular populations and species targeted for hunting and market, the overharvest of forest wildlife can also produce wider ecological effects that are of growing concern to conservationists. The bushmeat trade’s impact can be observed well beyond targeted wildlife. Intensive harvesting of bushmeat in tropical forests, for example, produces what some biologists have referred to as the “empty forest syndrome” (e.g., Redford 1992), in which largely intact tree cover masks significant biodiversity loss following the reduction of large animals for the wild meat trade—as well as the secondary loss of predators that prey upon them (Bushmeat Crisis Task Force, n.d.). There is also the concern that overhunting of forest wildlife can ultimately affect forest vegetation by reducing seed dispersal and tree growth (Stoner et al. 2007; Brodie et al. 2009). This may in turn have implications for the provision of ecological services, as some ecologists have suggested overhunting

may be indirectly reducing an important global sink in degrading the carbon sequestration potential of tropical forests (Brodie and Gibbs 2009; though see also Jansen, Muller-Landau, Wright 2010).

The human impact of the bushmeat trade, too, has become a source of increasing anxiety within the development, public health, and conservation communities. Consumption of wild meat by humans increases the risk of zoonotic transmission of disease; as Peterson (this volume) notes, virologists have linked HIV-1 and HIV-2 to wild African primates, and there is fear that related Simian Immunodeficiency Viruses have found a reservoir in African monkey populations. The 2003 SARS epidemic is thought to have originated in the human exposure to an infected wild Himalayan palm civet (*Paguma larvata*) in a live-animal meat market in China (Chivian and Bernstein 2008, 43–44). A 2005 survey of bushmeat hunters in Cameroon found two viruses (HTLV-3 and HTLV-4) that researchers believe came from primates—and that have been linked to neurological disease (Marris 2005).

Adding to such anthropocentric concerns is the economic issue of declining livelihoods and the economic costs of dwindling populations of harvested game, a trend that threatens the food security of poor, landless peoples in tropical regions (Rao and McGowan 2002, 580). Fa, Currie, and Meeuwig (2003) predict that if current extraction levels in the Congo Basin continue, “there will be a significant decline in available wild protein by 2050, and there will be insufficient non-bushmeat protein produced to replace the amounts supplied by wild meats” (Fa, Currie, and Meeuwig 2003, 75). What is more, the distributional pattern of this decline promises to hit the most vulnerable communities the hardest. As Bennett and colleagues (2007, 885) write, the livelihood impact and loss of wild meat as the available protein source declines in these regions will be especially problematic for marginalized groups and indigenous peoples who lack alternative sources of income and opportunities to enter the labor market.

### **Principle and Pragmatism in Bushmeat Policy**

The environmental, animal, and human impact of the commercial trade in bushmeat would seem to point toward a common policy response, at least in principle. Whether the concern is primarily the survival of threatened wild-life populations (especially primates), the reduction of seed dispersers and prey species for large carnivores, or the increased risk of exposure to zoonotic diseases, clearly there are compelling reasons to attempt to develop effective bushmeat policies and practices that will address the broad range of conservation and development values (Bennett et al. 2007). Furthermore, the bushmeat problem appears to be a case in which both animal rights/welfare and a strong nature-centered ethic of conservation would be supported by a strict ban on

bushmeat harvest and trade, the establishment of more tightly managed (for biodiversity preservation) protected areas in bushmeat regions, and increased enforcement and interdiction efforts.

The ban-and-enforcement approach would certainly comport well with the canonical work in environmental ethics, which has largely been defined by the search for a nature-centered or nonanthropocentric ethical system that will motivate unswerving preservationist plans and policies (e.g., Taylor 1986; Rolston 1988, 1994; Westra 1994; Katz 1997). A key part of this project has been to engender a profound change in worldview—and a radical ethical transformation—within individuals and societies that many environmental ethicists believe is essential to protecting wildlife and plant species, preventing the degradation and destruction of ecological systems, and generally “doing right” by nature. A global ban on bushmeat harvest and trade, if effectively enforced, would thus seem to be justified by appeal to a strong nonanthropocentric principle requiring the preservation of species and natural systems for their own sake and safeguarding these species and systems against all forms of human encroachment and degradation.

Such a policy of prohibition would also be strongly supported by the animal ethics perspective given that the goal would be to protect targeted and nontargeted animals (considered individually) from being harmed and/or killed for a growing market in bushmeat. This approach would presumably satisfy both animal welfare “sentientists” concerned with minimizing the pain and suffering of conscious beings and animal rights proponents who would apply a stronger “no use” standard that respects the dignity of “ends-in-themselves.” Finally, by reducing contact with and consumption of wild meat (especially primates) via enforcement of a hunting and trade ban, health risks would be lowered, thus addressing a significant anthropocentric concern about the bushmeat enterprise.

Yet as mentioned earlier, this broad convergence of values and interests in addressing the bushmeat problem—including the ethical and programmatic concerns of animal rights/welfare and species/ecosystem conservation—will in practice be more complicated to achieve and maintain, especially as we begin to consider specific strategies and tactics to manage the bushmeat trade and the implications of a prohibition policy on other critical interests, especially human livelihoods. Indeed, the overlapping interests and ethical arguments pointing toward curbing the unsustainable harvest of and trade in wild meat have the potential to pull in different directions at the planning and policy level. This is especially true to the degree that these ethical principles and agendas are articulated in absolutist and ideological ways that preclude efforts to achieve pragmatic compromises and workable solutions that attempt to engage the full range of values at stake in the bushmeat dilemma.

One potential area of tension in formulating bushmeat policy, for example, exists between strict nature preservationist views and more sustainable development and human livelihood goals. Although human health benefits from a prohibitive policy response would likely ensue with respect to reduced risk of contracting zoonotic diseases, other anthropocentric interests, such as (short-term) protein availability, the income-generating potential of the trade in wild meat for poor, marginal human communities, and the cultural value of bushmeat hunting and consumption, may be in direct conflict with the strong preservationist response. Over the last decade, conservationists and development professionals have engaged in a series of debates on the broader question of whether poverty alleviation or biodiversity protection should dominate international conservation efforts, a conversation that has at times divided more nonanthropocentric “nature protectionists” advocating a strong protected areas and biodiversity-centered strategy for conservation from more (broadly) anthropocentric “social conservationists” who view biodiversity (and nature generally) as vehicles for sustainable development and the improvement of human welfare over the long run (see, e.g., Adams et al. 2004; Sanderson and Redford 2003; Roe and Elliot 2004; Roe 2008; Miller, Minter, and Malan 2011). Proposals to address the bushmeat problem that focus narrowly on the biodiversity conservation goal—when articulated at the expense of human livelihood and welfare interests—thus run the risk of clashing with the development agendas of social conservationists, pitting wildlife and ecological protection against the interests of rural communities who may have few alternative protein sources available and a limited range of economic opportunities.

This conflict becomes even more significant given the real-world conditions that will constrain any practicable bushmeat policy. Despite its attractiveness to doctrinaire conservationists (and animal rights proponents), most conservation and development planners do not see a global ban on bushmeat as the most realistic or effective approach to addressing the problem. Indeed, frank assessments of the viable policy options for addressing the bushmeat problem seem to concur that a strict prohibition-and-enforcement-based policy will be unsuccessful, especially if these pressing human welfare needs are not addressed (Bennett et al. 2007; Nasi et al. 2008). These judgments take a pragmatic view of the possibilities for biodiversity conservation within the particular governance, economic, and cultural contexts of bushmeat regions, which are often beset by inadequate administrative resources as well as weak formal traditions of natural resource monitoring and management, and limited overall institutional capacity. They also account for the undeniably powerful incentive structures propelling bushmeat harvest and trade, including the lack of available protein substitutes, the low barriers to entry in the enterprise (compared to the

capital requirements of agriculture), and varying cultural preferences for wild meat over that from domestic animals (Brown 2007; Kümpel et al. 2007; Hurst 2007). And they recognize the imperative to balance competing values and interests in policy response to the bushmeat problem, including ethical regard for human welfare as well as for wildlife conservation and ecological health.

What emerges from these more pragmatic analyses is the need to develop nuanced, adaptive, and context-specific bushmeat policies balancing the sustainable use of wildlife in bushmeat regions with the legal protection of listed (threatened) species, rather than advocating a universal and undifferentiated preservationist policy that prohibits wildlife exploitation altogether. Along these lines, some of the more promising efforts to reconcile biodiversity protection with sustainable use and development goals in the bushmeat case focus on the need to integrate conservation and development interests via coordinated spatial planning. Bennett and colleagues (2007, 886), for example, propose an integrated, landscape-level approach that employs a range of land-use strategies, including the designation of protected areas (managed for biodiversity conservation), production forests for resource production (including hunting of nonthreatened species), and “farm bush” areas devoted to sustaining local livelihoods—and which could provide both bushmeat and agricultural products. The development of alternative sources of protein, such as intensively bred cane rats, cattle, and/or farmed fish, could certainly play a role in reducing the need for wild meat in rural communities and relieving hunting pressure on overexploited populations, though the success of these alternatives will depend upon a range of biological, economic, and political factors (e.g., Bowen-Jones and Pendry 1999; East et al. 2005; Wilkie and Godoy 2001; Wilkie et al. 2005). These efforts, moreover, will likely be most effective when joined by a host of additional measures, including the use of economic incentives and sanctions such as increased taxation, the imposition of fines on bushmeat traders engaging in unsustainable practices, and increased monitoring and enforcement efforts (Wilkie and Carpenter 1999).

Among other challenges, these sorts of pragmatic attempts to reduce unsustainable bushmeat harvest and trade—while also increasing protection for threatened species—require building effective alliances among the various stakeholders in bushmeat regions, including rural communities, conservation and development specialists, local and national officials, and the extractive industrial sector (i.e., logging, oil drilling, and mining). The emerging consensus appears to be that these alliances will require a great deal of flexibility and ethical accommodation, especially among more nonanthropocentrically minded conservationists who rightly view extractive enterprises as posing some of the greatest threats to wildlife health and ecological integrity. But there is

also reason to believe that these partnerships have the potential to productively reshape hunting and market practices, at least at the local scale.

For example, as mentioned above, logging companies are a significant factor in the commercial bushmeat trade (just as they are in ecological destruction); road building for timber harvest fragments and degrades wildlife habitat and also stimulates hunting by providing a demand for wild meat at logging concessions and a key transportation route linking remote forest interiors to urban bushmeat markets (Nasi et al. 2008, 29–30; Poulsen et al. 2009). For that very same reason, some conservation organizations have established partnerships with logging companies and government agencies in bushmeat regions to develop collaborative wildlife management systems that encourage sustainable hunting, protect wildlife populations and minimize habitat destruction, and promote rural livelihoods. The Project for the Management of Ecosystems in the Periphery of the Nouabale-Ndoki National Park (DRC) is perhaps one of the better-known cases of this sort of multisector, collaborative approach. A joint effort of the Wildlife Conservation Society, a Congolese logging company, and the national government, the project established wildlife use zones to control access and increase protection of bushmeat species. It also developed a program of conservation education for company managers and local residents, enhanced wildlife regulations in company policies, and pursued the development of affordable protein alternatives (i.e., bush farms and importation of beef), among other practices (Poulsen, Clark, and Mavah 2007; Nasi et al. 2008). Although the program has been criticized for not holding the timber company to a high enough standard with respect to wildlife conservation and forest sustainability, supporters view it as an important effort in shaping subsequent national-level policy requiring all logging concessions in Northern Congo to pay for wildlife protection and practice wildlife management as part of their operations (Aviram, Bass, and Parker 2003, 11).

The upshot is that a feasible, effective, and ethically inclusive policy response to the bushmeat dilemma will require balancing a complex of values and interests as well as accommodating diverse stakeholders in workable, multilevel partnerships that can reduce human impact on wildlife species and tropical forest systems while improving the food security and livelihood prospects of poor rural people. It will also require that specific policy agendas and management regimes demonstrate great context sensitivity given the cultural and institutional variability across bushmeat areas, the differing degrees of biological vulnerability of wildlife populations, and varying levels of productivity and options for achieving sustainable harvest rates within particular ecosystems (Robinson and Bennett 2004). Indeed, as Nasi and colleagues (2008, 40) conclude, the bushmeat problem is simply not amenable to universal solutions,

but rather must be “nation, site, and context-specific, be based on a detailed knowledge of hunting patterns and the ecology of the hunted species and be tailored to local cultural, socio-economic, and political conditions” (see also Secretariat of the Convention on Biological Diversity 2011).

Yet once more the incorporation of sustainable use principles within an integrative bushmeat policy program will not be agreeable to more strict nature preservationists, both in environmental ethics (mentioned above) and in biodiversity conservation, who worry that these strategies will open the door to further exploitation and destruction of populations and ecosystems (e.g., Terborgh 1999). This approach will also not appease most animal rights proponents: a pragmatic bushmeat policy combining sustainable use with protection of threatened populations will obviously still harm and kill individual animals. But special protections for threatened and/or vulnerable species such as primates (see, e.g., Ape Alliance 2006) and increased monitoring and enforcement efforts—to the degree they are effective—should reduce harm and death within these populations. Furthermore, efforts to curtail the unsustainable commercial trade in bushmeat for urban consumers would also be expected to lead to a decrease in the overall number of animals harmed and killed beyond subsistence consumption. Both animal rights/welfare and conservation proponents, moreover, could support greater restrictions on unnecessarily harmful and indiscriminate bushmeat hunting techniques, such as the use of snares that often results in prolonged animal suffering of target and nontarget animals (Bowen-Jones and Pendry 1999).

All the same, it is true that a realistic and balanced policy response to the bushmeat problem will require a significant number of concessions and compromises from the more zealous advocates of animal protection, just as it will from the more preservationist oriented conservation scientists, ethicists, and advocates. The moderate elements of the animal welfare community, which seek to reduce animal suffering balanced with other interests and concerns, may be far more likely to support a sustainable harvest-protection bushmeat policy than the more ideological factions of the animal rights community, which take a harder line on human exploitation of animals—regardless of whether such exploitation is justified on conservation grounds. And again, the more pragmatic wing within the nature conservation camp will presumably be more open to the mixed, managed use-protection model than the preservationist wing, which typically prefers a “fortress conservation” approach focused on expanding protected areas and limiting human access to biological resources.

But banning hunting and consumption of bushmeat, despite the appeal such a policy would hold for strong nature protectionists and animal rights advocates, is simply not realistic in light of the economic, cultural, and political factors

described above. Even more seriously, it is a policy that would run afoul of a host of powerful ethical obligations to promote human welfare in impoverished regions and would violate core principles of procedural and social justice in conservation decision making and resource allocation. This is an especially important point given that conservationists have at times treated these commitments cavalierly (see, e.g., Brockington 2002; Dowie 2009). Top-down, heavy-handed attempts to impose a wild meat ban would likely have disastrous short-term consequences for human well-being in bushmeat regions—not to mention potentially undercut conservation efforts by disenfranchising local people and putting even greater pressure on threatened populations and protected areas (Brown 2007).

### **Conclusion: Conservation without Ideology**

As biodiversity scientist John Robinson (2011) writes, ideological stances in conservation—which may be found among those championing species protection and human livelihoods, as well as animal rights—frequently create intractable and polarizing ethical dilemmas in practice. The solution, he argues, is to relax adherence to absolutist principles and convictions and pay more attention to the critical role of sociocultural and ecological contexts in conservation planning and policy, including efforts to enhance project sustainability and effectiveness over the long run. Among other things, Robinson's more pragmatic outlook requires an embrace of ethical and strategic pluralism in conservation projects, as different conservation contexts will necessitate different approaches and ethical justifications. These ethical convictions and strategies will be continuously revised and clarified over time as the conservation community learns from its failures and successes and adjusts its priorities in light of new information and changing social, cultural, and ecological conditions (Norton 2005).

The attempt to recognize and understand this value pluralism, including the search for points of policy convergence and common ground when possible, is a key feature of what some are calling “ecological ethics,” a pragmatic model of ethics for ecologists and biodiversity scientists that tries to accommodate the widest possible range of conservation and human values in management decisions and policy making (see, e.g., Minter and Collins 2005a, 2005b, 2008). Problems like the bushmeat crisis demonstrate the need to see the connections and synergies among these various realms of value—and adopt creative and effective methods of coalition building and problem solving among stakeholders—rather than coming to a philosophical agreement on the final and universal goal for conservation (see Vucetich and Nelson, this volume, for a defense of the latter approach). To be “pragmatic” in conservation planning

and policy making is to acknowledge that there are many potentially valid ends to be pursued within the conservation agenda, including species protection, ecological resilience, and human and animal well-being. The challenge is thus to determine which combinations of values and goals are possible and desirable within particular conservation plans and projects.

As the bushmeat case illustrates, however, hard choices will still have to be made—often to the dissatisfaction of more doctrinaire voices in conservation and animal advocacy. But there remains considerable value in pursuing more inclusive and integrative strategies in conservation ethics and policy and not presuming that different underlying philosophical perspectives will always result in conflicting policy preferences and agendas, even if trade-offs will ultimately need to be addressed at the project level (Leader-Williams, Adams, and Smith 2010). By not defining certain stakeholders or positions in advance as lacking a “true” conservation ethic, or as acting on improper or misguided motives, the pragmatist approach reflects a deeper faith in the possibility of building diverse coalitions around specific conservation and development problems. And it compels us to engage demanding conservation challenges—such as the bushmeat dilemma—in a cooperative, experimental, and nonideological fashion, whether we ultimately care more about animals, ecosystems, or human livelihoods.

## References

- Adams, W. M., R. Aveling, D. Brockington, B. Dickson, J. Elliott, J. Hutton, D. Roe, B. Vira, and W. Wolmer. 2004. “Biodiversity Conservation and the Eradication of Poverty.” *Science* 306: 1146–48.
- Ape Alliance. 2006. *Recipes for Survival: Controlling the Bushmeat Trade*. London.
- Aviram, R., M. Bass, and K. Parker. 2003. *Extracting Hope for Bushmeat: Case Studies of Oil, Gas, Mining, and Logging Industry Efforts for Improved Wildlife Management*. Report available at <http://www.bushmeat.org/docs.html>.
- Barrett, Meredith A., and Jonah Ratsimbazafy. 2009. “Luxury Bushmeat Trade Threatens Lemur Conservation.” *Nature* 461: 470.
- Bennett, Elizabeth. 2006. “Consuming Wildlife in the Tropics.” In *State of the Wild 2006: A Global Portrait of Wildlife, Wildlands, and Oceans*, edited by S. Guynup, 106–13. Washington, DC: Island Press.
- Bennett, E. L., E. Blencowe, K. Brandon, D. Brown, R. W. Burn, G. Cowlishaw, G. Davies, H. Dublin, J. E. Fa, E. J. Milner-Gulland, J. G. Robinson, J. M. Rowcliffe, F. M. Underwood, and D. S. Wilkie. 2007. “Hunting for Consensus: Reconciling Bushmeat Harvest, Conservation, and Development Policy in West and Central Africa.” *Conservation Biology* 21: 884–87.
- Bennett, E. L., E. J. Milner-Gulland, M. Bakarr, H. E. Eves, J. G. Robinson, and D. S. Wilkie. 2002. “Hunting the World’s Wildlife to Extinction.” *Oryx* 36: 328–29.
- Bowen-Jones, Evan, and Stephanie Pendry. 1999. “The Threat to Primates and Other Mammals from the Bushmeat Trade in Africa, and How This Threat Could Be Diminished.” *Oryx* 33: 233–46.
- Brockington, Dan. 2002. *Fortress Conservation: The Preservation of the Mkomazi Game Reserve*. Bloomington: Indiana University Press.
- Brodie, J. F., O. E. Helmy, W. Y. Brockelman, and J. L. Maron. 2009. “Bushmeat Poaching Reduces the Seed Dispersal and Population Growth Rate of a Mammal-Dispersed Tree.” *Ecological Applications* 19: 854–63.

- Brodie, Jebediah F., and Holly K. Gibbs. 2009. "Bushmeat Hunting as Climate Threat." *Science* 326: 364–65.
- Brown, David. 2007. "Is the Best the Enemy of the Good? Institutional and Livelihoods Perspectives on Bushmeat Harvesting and Trade—Some Issues and Challenges." In *Bushmeat and Livelihoods: Wildlife Management and Poverty Reduction*, edited by G. Davies and D. Brown, 111–24. Malden, MA: Blackwell.
- Brown, David, and Glyn Davies. 2007. Introduction. In *Bushmeat and Livelihoods: Wildlife Management and Poverty Reduction*, edited by G. Davies and D. Brown, 1–10. Malden, MA: Blackwell.
- Bushmeat Crisis Task Force (BCTF). n.d. *Bushmeat: A Wildlife Crisis in West and Central Africa and around the World*. Document accessed online at [http://www.bushmeat.org/bushmeat\\_and\\_wildlife\\_trade/what\\_is\\_the\\_bushmeat\\_crisis](http://www.bushmeat.org/bushmeat_and_wildlife_trade/what_is_the_bushmeat_crisis).
- Callicott, J. Baird. 1980. "Animal Liberation: A Triangular Affair." *Environmental Ethics* 2: 311–38.
- . 1998. "Back Together Again." *Environmental Values* 7: 461–75.
- Chivian, Eric, and Aaron Bernstein. 2008. "How Is Biodiversity Threatened by Human Activity?" In *Sustaining Life: How Human Health Depends on Biodiversity*, edited by E. Chivian and A. Bernstein, 29–74. New York: Oxford University Press.
- Davies, Glyn. 2002. "Bushmeat and International Development." *Conservation Biology* 16: 587–89.
- Dowie, Mark. 2009. *Conservation Refugees: The Hundred-Year Conflict between Global Conservation and Native Peoples*. Cambridge, MA: MIT Press.
- East, T., N. F. Kümpel, E. J. Milner-Gulland, and J. M. Rowcliffe. 2005. "Determinants of Urban Bushmeat Consumption in Río Muni, Equatorial Guinea." *Biological Conservation* 126: 206–15.
- Fa, J. E., D. Currie, and J. Meeuwig. 2003. "Bushmeat and Food Security in the Congo Basin: Linkages between Wildlife and People's Future." *Environmental Conservation* 30: 71–78.
- Fa, J. E., C. A. Peres, and J. Meeuwig. 2002. "Bushmeat Exploitation in Tropical Forests: An Intercontinental Comparison." *Conservation Biology* 16: 232–37.
- Hurst, Andrew. 2007. "Institutional Challenges to Sustainable Bushmeat Management in Central Africa." In *Bushmeat and Livelihoods: Wildlife Management and Poverty Reduction*, edited by G. Davies and D. Brown, 158–71. Malden, MA: Blackwell.
- Hutchins, Michael. 2008. "Animal Rights and Conservation." *Conservation Biology* 22: 815–16.
- Jamieson, Dale. 1998. "Animal Liberation Is an Environmental Ethic." *Environmental Values* 7: 41–57.
- Jansen, P. A., H. G. Muller-Landau, and S. J. Wright. 2010. "Bushmeat Hunting and Climate: An Indirect Link." *Science* 327: 30.
- Katz, Eric. 1991. "Defending the Use of Animals by Business: Animal Liberation and Environmental Ethics." In *Business, Ethics and the Environment: The Public Policy Debate*, edited by W. M. Hoffman, R. Frederick, and E. S. Petry Jr., 223–32. New York: Quorum Books.
- . 1997. *Nature as Subject: Human Obligation and Natural Community*. Lanham, MD: Rowman and Littlefield.
- Kümpel, N. F., T. East, N. Keylock, J. M. Rowcliffe, G. Cowlshaw, and E. J. Milner-Gulland. 2007. "Determinants of Bushmeat Consumption and Trade in Continental Equatorial Guinea: An Urban-Rural Comparison." In *Bushmeat and Livelihoods: Wildlife Management and Poverty Reduction*, edited by G. Davies and D. Brown, 73–91. Malden, MA: Blackwell.
- Kümpel, N. F., E. J. Milner-Gulland, G. Cowlshaw and J. M. Rowcliffe. 2010. "Incentives for Hunting: The Role of Bushmeat in the Household Economy in Rural Equatorial Guinea." *Human Ecology* 38: 251–64.
- Leader-Williams, N., W. A. Adams, and R. J. Smith, eds. 2010. *Trade-Offs in Conservation: Deciding What to Save*. Oxford: Wiley-Blackwell.
- Marris, Emma. 2005. "Monkeys Infect Bushmeat Hunters." *Nature News* (online), <http://www.nature.com/news/2005/050516/full/news050516-2.html>.
- Miller, T. R., B. A. Minter, and L-C. Malan. 2011. "The New Conservation Debate: The View from Practical Ethics." *Biological Conservation* 144: 948–57.
- Minter, Ben A., and James P. Collins. 2005a. "Ecological Ethics: Building a New Tool Kit for Ecologists and Biodiversity Managers." *Conservation Biology* 19: 1803–12.

- . 2005b. "Why We Need an 'Ecological Ethics.'" *Frontiers in Ecology and Environment* 3: 332–37.
- . 2008. "From Environmental to Ecological Ethics: Toward a Practical Ethics for Ecologists and Conservationists." *Science and Engineering Ethics* 14: 483–501.
- Nasi, R., D. Brown, D. Wilkie, E. Bennett, C. Tutin, G. van Tol, and T. Christophersen. 2008. *Conservation and Use of Wildlife-Based Resources: The Bushmeat Crisis*. Secretariat of the Convention on Biological Diversity, Montreal, and Center for International Forestry Research (CIFOR), Bogor. Technical Series no.33.
- Norton, Bryan G. 2005. *Sustainability: A Philosophy of Adaptive Ecosystem Management*. Chicago: University of Chicago Press.
- Perry, Dan, and Gad Perry. 2008. "Improving Interactions between Animal Rights Groups and Conservation Biologists." *Conservation Biology* 22: 27–35.
- Peterson, Dale. 2003. *Eating Apes*. Berkeley: University of California Press.
- . This volume. "Talking about Bushmeat."
- Poulsen, J. R., C. J. Clark, and G. A. Mavah. 2007. "Wildlife Management in a Logging Concession in Northern Congo: Can Livelihoods Be Maintained through Sustainable Hunting?" In *Bushmeat and Livelihoods: Wildlife Management and Poverty Reduction*, edited by G. Davies and D. Brown, 140–57. Malden, MA: Blackwell.
- Poulsen, J. R., C. J. Clark, G. Mavah, and P. W. Elkan. 2009. "Bushmeat Supply and Consumption in a Tropical Logging Concession in Northern Congo." *Conservation Biology* 23: 1597–608.
- Rao, Madhu, and Philip J. K. McGowan. 2002. "Wild-Meat Use, Food Security, Livelihoods, and Conservation." *Conservation Biology* 16: 580–83.
- Redford, Kent H. 1992. "The Empty Forest." *BioScience* 42: 412–22.
- Regan, Tom. 2004. *The Case for Animal Rights*. Updated ed. Berkeley: University of California Press.
- Robinson, John G. 2011. "Ethical Pluralism, Pragmatism, and Sustainability in Conservation Practice." *Biological Conservation* 144: 958–65.
- Robinson, John G., and Elizabeth L. Bennett. 2002. "Will Alleviating Poverty Solve the Bushmeat Crisis?" *Oryx* 36: 332.
- . 2004. "Having Your Wildlife and Eating It Too: An Analysis of Hunting Sustainability across Tropical Ecosystems." *Animal Conservation* 7: 397–408.
- Roe, Dilys. 2008. "The Origins and Evolution of the Conservation-Poverty Debate: A Review of Key Literature, Events, and Policy Processes." *Oryx* 42: 491–503.
- Roe, Dilys, and Joanna Elliot. 2004. "Poverty Reduction and Biodiversity Conservation: Rebuilding the Bridges." *Oryx* 38: 137–39.
- Rolston, Holmes, III. 1988. *Environmental Ethics: Duties to and Values in the Natural World*. Philadelphia, PA: Temple University Press.
- . 1994. *Conserving Natural Value*. New York: Columbia University Press.
- Sagoff, Mark. 1984. "Animal Liberation and Environmental Ethics: Bad Marriage, Quick Divorce." *Osgoode Hall Law Journal* 22: 297–307.
- Sanderson, Steven E., and Kent H. Redford. 2003. "Contested Relationships between Biodiversity Conservation and Poverty Alleviation." *Oryx* 37: 389–90.
- Secretariat of the Convention on Biological Diversity. 2011. *Livelihood Alternatives for the Unsustainable Use of Bushmeat*. Report prepared for the CBD Bushmeat Liaison Group. Technical Services No. 60, Montreal, SCBD, 46 pages.
- Singer, Peter. 2002. *Animal Liberation*. Rev. ed. New York: HarperCollins.
- Stoner, K. E., K. Vulinac, S. J. Wright, and C. A. Peres. 2007. "Hunting and Plant Community Dynamics in Tropical Forests: A Synthesis and Future Directions." *Biotropica* 39: 385–92.
- Taylor, Paul W. 1986. *Respect for Nature: A Theory of Environmental Ethics*. Princeton, NJ: Princeton University Press.
- Terborgh, John. 1999. *Requiem for Nature*. Washington, DC: Island Press.
- Thibault, Marc, and Sonia Blaney. 2003. "The Oil Industry as an Underlying Factor in the Bushmeat Crisis in Central Africa." *Conservation Biology* 17: 1807–13.
- Varner, Gary E. 1998. *In Nature's Interests? Interests, Animal Rights, and Environmental Ethics*. Oxford: Oxford University Press.

- Vucetich, John A., and Michael P. Nelson. This volume. "The Infirm Ethical Foundations of Conservation."
- Westra, Laura. 1994. *An Environmental Proposal for Ethics: The Principle of Integrity*. Lanham, MD: Rowman and Littlefield.
- Wilkie, David S., and Julia F. Carpenter. 1999. "Bushmeat Hunting in the Congo Basin: An Assessment of Impacts and Options for Mitigation." *Biodiversity and Conservation* 8: 927–55.
- Wilkie, David S., and Ricardo A. Godoy. 2001. "Income and Price Elasticities of Bushmeat Demand in Lowland Amerindian Societies." *Conservation Biology* 15: 761–69.
- Wilkie, D. S., M. Starkey, K. Abernethy, E. Nstame Effa, P. Telfer, and R. Godoy. 2005. "Role of Prices and Wealth in Consumer Demand for Bushmeat in Gabon, Africa." *Conservation Biology* 19: 268–74.
- Ziegler, Stefan. 2010. "Application of Food Balance Sheets to Assess the Scale of the Bushmeat Trade in Central Africa." *Traffic Bulletin* 22: 105–16.