

What is New on the Animal Protection Radar?

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ABSTRACT American attitudes toward wildlife have often been cast as falling within an urban/rural dichotomy that separates protectionist from utilitarian value orientations. Long held as a major challenge to wildlife managers, the urban/rural dichotomy may be yielding to change as new attitude and value orientations arise from direct conflicts people have with wild animals as well as from a generational disenfranchisement of young people who lack direct experience with the outdoors. Both may loom as larger challenges for the future and shift the focus of once opposing interests more toward efforts to establish cooperation. Currently, much of the disagreement over wildlife management practices is disagreement over principles, leading often to values gridlock in which dialogue stagnates. Offering a way out of gridlock, welfare assessments that establish the "humaneness" of management actions may be a direct way to reach better consensus, if not complete agreement, on controversial management practices. Certainly they should be tried, as the need for better communication tools in wildlife management and wildlife damage control grows.

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As a part of their seminal report on American attitudes towards wildlife, Kellert and Berry (1980) declared that an urban/rural challenge would be "...one of the most difficult and important problems confronting wildlife managers in the 1980s." Hadidian (1992) went on to predict, without much need for prescience, that this would continue into the 1990s, as appears to have largely been the case. This "challenge" has typically been described as a utilitarian/protectionist dichotomy in which rural (utilitarian) values are pitted against urban (protectionist) ones, often to a point where traditional wildlife management practices (particularly hunting and trapping, but many activities related to damage control as well) would be challenged by newly emerging paradigms. A common concern among wildlife management professionals relating to this was the feeling that while urbanites wanted to protect animals they lacked a sufficient understanding of the basic biological and ecological facts about them to understand the need for utilitarian management practices (e.g., Muth and Jamison 2000).

Hence, opposing viewpoints about managing Canada geese (*Branta canadensis*), white-tailed deer (*Odocoileus virginianus*), black bears (*Ursus americanus*), and other species have come to dominate the dialogue about urban wildlife. Some recent findings, however, suggest that new challenges may be emerging to supersede the urban/rural dichotomy. With the first decade of the new millennium now almost concluded, it may be a good time to take another look at where the management challenges for the future lie.

Human dimensions research has recently begun to elucidate how dynamic people's attitudes toward wildlife are, as well as the extent to which they may be influenced by multiple determinants (Zinn & Miller 2003). Importantly, research is beginning to show that negative experiences with individual wild animals (conflicts) can help determine how value orientations toward even broader interests, such as wildlife conservation and protection in general, are set (e.g., Krester et al 2009). Should conflicts continue to rise or, worse, come to dominate the direct experiences the public has with wild

animals, then feelings may sour and support for wildlife in general be diminished. Beyond this, an even greater challenge to value orientation may come from how Americans are now spending their childhood. As we examine the formative experiences many Americans have, growing up seems to increasingly be an indoors, virtual reality as opposed to an outdoors, actual reality experience. Louv (2008) has even raised the specter of a "nature-deficit disorder" arising as a generational phenomenon in children who do not have direct experiential contact with the outdoors. The impact and consequence of contemporary life experiences in the development of what might be called an environmental ethic should be of considerable concern to anyone who is interested in preserving that ethic in any form.

While the world inhabited by the public may be experiencing rapid change, that occupied by our wildlife institutions seems to be stuck in place. The facts, although sparse, suggest the urban public and its interests are simply not taken as relevant by traditional wildlife managers. L. Adams et. al (1985) surveyed land grant universities in an attempt to determine how many incorporated urban wildlife management into their curricula, and found that a strong majority (92%) had no urban wildlife program and that nearly as many (88%) did not even offer courses in urban wildlife. C. Adams (2003) resurveyed for this a decade and a half later and found little change in the departments that did not offer courses (81%), while a paradoxical 85% of those polled identified urban wildlife as a growing concern. That same level of concern was expressed by state wildlife management agencies, of which more than half said they held all responsibility for urban wildlife, while devoting less than one percent (0.8%) of actual staff time to that interest (Adams

2003). It is likely there are fewer state agencies with formal urban wildlife programs now than existed in the 1980s, when Lyons and Leedy (1984) found only six. As Adams (2003) puts it, the infrastructure for managing urban wildlife is lacking. Is this important? If a majority of Americans live in cities and suburbs, as we know they do, and that majority's interests need to be served, and that majority votes, then the answer to that question is obviously yes.

Looking for Common Ground

Actions involving the control of wild animals, especially those associated with population management, have been and will continue to be highly controversial. Protectionists and traditionalists are likely to see the need for management and justification of methods with widely different meaning, while still agreeing on the inherent value of the (wildlife) resource itself. Wildlife professionals have responded well to the fact that many different stakeholders will seek to come forward and add their voice to the issues by formalizing ways to account for and integrate alternative interests into management planning (e.g., Decker et. al 2005). Integrating differing opinions and allowing the expression of opposing interests are not enough, however. Arguments over principles (e.g., debates on hunting and trapping between protectionists and utilitarians), however important to their proponents, should not create gridlock where agreements about shared interests (e.g., educating children about the natural world) are a greater need. Given the complexity of most resource management issues, however, it is never easy to parse issues in a way that promotes agreement. The two examples below exemplify management issues largely driven by principle-based arguments that would be better addressed if somehow better grounded

empirically. One possible approach in doing this is suggested following the descriptions below.

Humane Wildlife Services

In May 2007, The Humane Society of the United States (HSUS) launched a business enterprise in the metropolitan Washington, D.C. area entitled Humane Wildlife Services™ (HWS) (Griffin et. al 2008), based on a highly successful wildlife control business model developed by Brad Gates of AAA Wildlife Control (now, AAA Gates Wildlife Control®) in Toronto, CN (Gates et. al 2006). The concept of “humane” wildlife control services is, of course, neither new nor proprietary to HSUS, but has existed as part of the wildlife control industry for some period of time. HWS-type businesses already exist in Texas, Colorado, California, Oklahoma, Ohio and probably other states as well. Critter Control®, the largest franchiser of private wildlife control companies in the United States, offers its CritterSafe® program as a component of its franchising services. All of these eschew the traditional (and often preferred by the industry) option of trapping and lethal removal of “problem” animals for approaches that focus on eviction, exclusion and reunion of family members, leaving displaced animals within their known home ranges.

The objective of HSUS in establishing its own service was twofold. First, it was to provide customers experiencing wildlife conflicts with an alternative to the traditional wildlife control practices in which “problem” animals are typically killed or translocated; second it was to gain direct and practical experience for the organization in the realities of providing customers such alternative services, including with respect to business practices. The reaction among traditional wildlife damage practitioners to this initiative appears to have been largely

negative (Noonan 2007). The National Pest Management Association (NPMA) conducted a survey of members (124 respondents) which found that fully seventy percent did not think HSUS should be “allowed” to offer wildlife removal services for hire (NPMA 2007). This raises the question: why has this program been so negatively received by the pest control industry?

In part this must come from the suspicion felt by traditional wildlife control practitioners that HSUS simply wishes to put them out of work as part of its efforts to see traps banned. While it is true that HSUS opposes most uses of the traps that would be preferred by traditional damage control practitioners (HSUS 2009), our programs are aimed at seeking reform in the industry, not in eliminating the industry itself (Hadidian et. al 2001). Both lethal and nonlethal trapping is going to be a part of urban wildlife control for the foreseeable future. Both can have significant welfare impacts on animals, and need to be examined more closely. The use of traps of any kind in “nuisance” wildlife control needs to be better and more objectively assessed. For example, although usually touted as “humane,” the box or cage can be used in an extremely inhumane manner when an animal is left unattended to suffer and die from exposure to heat or cold. How do we make objective determinations about the “humaneness” of both the types of traps used as well as the procedures associated with their use when research to address such questions may not even be possible on moral grounds? How can a dialogue about this be opened, then, and move toward some objective determination of what is and is not “humane?”

San Nicolas Island

San Nicolas Island (SNI), located approximately 100 km from the California

mainland, is one of the Channel Islands, renowned for their unique marine and terrestrial biological communities. SNI is owned by the U.S. Government and has been in use by the U.S. Navy as a missile telemetry site since the 1950s. The island is approximately 5,700 hectares (14,000 acres) in extent, and was first inhabited by people about 8,000 years ago. Between the 1850s and acquisition by the Navy in 1933 SNI was used primarily to raise sheep and goats, and the island experienced severe ecological impacts as a consequence. Four sensitive (threatened/endangered) animals are found on the island: an endemic race of mice (*Peromyscus maniculatus eximius*), the federally listed island night lizard (*Xantusia riversiana*), a state threatened island fox (*Urocyon littoralis dickeyi*), and a breeding population of the federally threatened western snowy plover (*Charadrius alexandrinus*). The island is also a prime site for concentrated seabird nesting as well as a birthing and nursery site for California sea lions (*Zalophus californianus*) and Northern elephant seals (*Mirounga angustirostris*).

A population of feral cats has lived on San Nicolas since at least the 1950s (Kovach & Dow 1981) and appears to have waxed and waned in size over time, being probably no more than 100–200 in 2008 (G. Smith, U.S. Navy, personal communication). Because of the presence of sensitive and endangered species, and the potential threat to nesting seabirds, a no cat policy has been advocated by the Navy, who joined with the U.S. Fish and Wildlife Service (USFWS) to propose an eradication plan (USDI 2008). HSUS commented on that plan, not to oppose the removal itself, but to raise concerns over the proposed methods by which removal would be accomplished. Among these was the decision to euthanize any cats that were trapped rather than to examine other possibilities for their removal. This led to an invitation through the

overseeing Montrose Trustee Council to discuss and test alternatives, and explore whether or not a nonlethal removal program would be in part or wholly feasible.

A trial trapping and removal period was conducted in the fall of 2008 to determine the feasibility of taking cats from the island alive. Upon capture, cats were taken to a secure facility, sedated, examined and held until they could be moved to a mainland veterinary clinic, where they were subjected to full examinations, spayed and neutered and given standard immunizations. Seven cats (4 males and 3 females) were removed. Under a Memorandum of Agreement (MOA) between the parties it was agreed that the cats would be kept securely at a sanctuary facility for the remainder of their lives and not allowed to roam or predate on wildlife. Because of problems encountered in locating such a facility, the cats experienced extended stays at the clinic, the longest being slightly more than four and the shortest slightly less than three months. During this time they were well attended, but also largely confined to standard clinic-sized (0.6 x 0.6 x 0.6m) kennels in a 2.4 x 2.4m room with an added security door. Some freedom of movement was possible when attendants were in the room cleaning cages and feeding, but the cats remained confined at other times.

The trial period raised numerous questions concerning the practicality and feasibility of alternatives to euthanasia for trapped cats. Among the welfare impacts on the cats were the capture and initial handling, short-term (days) housing on island, crating and transport, additional handling and invasive procedures (surgery) at the veterinary clinic, long-term (months) stay at that clinic and further handling and transport to yet another facility where they are likely to be housed for years. Once completely free-ranging and essentially wild, the seven cats were quickly reduced to

a captive condition for which the short-term welfare consequences could easily be viewed as poor. How could our understanding of the welfare impacts to cats be improved, so that a more informed decision could be made about the management practices employed here?

Finding Common Ground

Sharp & Saunders (2008) introduce a welfare assessment model that can be applied to questions such as those raised above. The model is centered on work in animal welfare science that identifies factors known to affect an animal's welfare state or condition, and accounts for both nonlethal as well as lethal impacts. In step one of a two-step process a matrix for scoring the consequences of interventions within what has been termed the five welfare domains (Kirkwood et. al 1994) is created. The domains are:

- I: water deprivation, food deprivation, malnutrition
- II: environmental challenge
- III: injury, disease, functional impairment
- IV: behavioural, interactive restriction
- V: anxiety, fear, pain, distress

Domains 1–4 represent the direct physical impacts that can lead to welfare compromise, while domain 5 represents the mental components in which impacts from the first four are expressed. The impact of a particular control method on overall welfare and its duration can be ordered along a non-numerical scale that ranges from no, mild, moderate and severe to extreme impacts. This results in a measure of severity (e.g., at a certain ambient temperature water deprivation of >2 hours could be a mild and at >24 hours an extreme impact) that follows criteria agreed on a priori. Step two enters the process when lethal methods are employed and is based on measures of time

to insensibility and level of intensity of suffering.

With reference to the two examples given earlier, the assessment process might look at a raccoon caught in a cage trap, and left on a roof in summer heat until it dies, as a victim of extreme suffering while the same animal caught in a body-crushing trap, based on time to death norms found in those devices (IAFWA 1997), might on average suffer severely. A higher priority for regulators might then arguably be placed on creating penalties for the improper operation of the cage traps than on other welfare issues.

The assessment process for nonlethal impacts would also take into account the duration of impacts over time. The welfare condition of the cats removed from SNI would have appeared poor on taking a first pass through the assessment process. However, unexpectedly during the initial period of husbandry several of the cats began to show varying degrees of tameness and allow human caretakers to pet and hold them. Within six months of being removed from the island and placement into the final sanctuary destination, all of the cats were considered tractable, allowing human contact and expressing varying degrees of interest in and affection for their caretakers. This shifts the overall assessment process and relative "humaneness" score back toward the option of removal and sanctuary, pending a better assessment of the cats' behavioral responses. Here, an additional step, or steps, in the assessment process may be called for to address the longitudinal nature of some actions.

Both of the assessment processes detailed in Sharp and Saunders (2008) result in matrices that can be used to score the "humaneness" of individual actions. Among the strengths of this sort of assessment process is that it can be used in the absence of empirical data to categorize impacts so

long as there is agreement about the defined scale of suffering and where to place a particular impact within it. Among the disadvantages is that at least some judgments are made subjectively and as such individual assessors may be tempted to use their personal experience and opinion rather than consult the literature in making assignments. Where the literature itself expresses differences over a particular procedure, such as occurs with drowning as euthanasia (Ludders et. al 1999, Bluett 2001), the model may have difficulty being applied.

DISCUSSION

Welfare assessments are not new, of course (Kirkwood et. al 1994, Hewson 2003), but their application in "pest" animal control is fairly novel. While far from perfect, they can have heuristic as well as operational value and are an excellent way of bearing down on some of the "hard cases" that exist in wildlife control for which dialogue seems to go on endlessly without much hope of resolution. If enough expert input goes into defining the valuation criteria for the models then a fairly robust metric will inevitably be forthcoming. As the model is largely based on a priori exercises, some process in which expert opinion is polled, weighed and evaluated might work well to help reach consensus about components of the assessment.

This type of model can also fit nicely into the operational approach to wildlife conflict resolution programs described by Littin et al. (2004). Here, assessment occurs as an action planned with the intended outcome of choosing the most humane method available to conduct a control program. Given that the most humane methods available may not be the most humane methods possible, a second step is advocated in which managers would seek to actively improve the humaneness of the

methods employed as the project is ongoing, thus, a form of adaptive management. A third step would focus on identifying the need for active research on the development of new and more humane methods based upon activities undertaken in the first two steps, if not occurring exactly in conjunction with them. Together, these would comprise short-, mid- and long-term strategies for improving the professional practice of wildlife damage control.

Welfare assessments that establish the "humaneness" of management actions may be a direct way to reach consensus, if not complete agreement, on controversial management practices. Certainly, where gridlock exists over issues they should be tried. While it is unlikely that Americans will embrace any time soon the concepts for national models of animal welfare that already exist in New Zealand (New Zealand Ministry of Agriculture and Forestry 2005) and Australia (Fisheries and Forestry Australian Government 2008), the need for better ways to identify and codify welfare concerns in planned as well as ongoing programs would argue strongly that welfare assessment models be adopted as a tool in wildlife management and damage control programs.

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