

# **THE NORTH AMERICAN MODEL OF WILDLIFE CONSERVATION: AFFIRMING THE ROLE, STRENGTH AND RELEVANCE OF HUNTING IN THE 21<sup>st</sup> CENTURY**

## **Public Opinion on and Attitudes Toward Hunting**

Mark Damian Duda, Responsive Management, Harrisonburg, Virginia

Martin Jones, Responsive Management, Harrisonburg, Virginia

## **Introduction**

As debate over hunting in the United States continues, an objective analysis of public attitudes toward and opinions on legal hunting provides a fundamental context for any discourse on the controversy. Research indicates that most Americans support hunting in general; however, support for and opposition to hunting can vary dramatically based on numerous factors, including personal values and characteristics, attitudes toward hunters, attitudes toward animal welfare, the motivation for participating, and the species involved, to name a few.

Personal values and perceptions of hunters affect support for and opposition to hunting. For example, some Americans support hunting in general, but, because of faith-based reasons, oppose hunting on Sundays. An illustration of this is in North Carolina, where 81% of residents approve of hunting, but only 25% support the legalization of Sunday hunting (RM 2006a). Additionally, Americans are concerned about the behavior of hunters, despite approving of hunting. Indeed, a majority of Americans feel that a lot of hunters violate hunting laws or practice unsafe behavior while hunting (Duda et al. 1998). In short, Americans' attitudes toward hunting are different than their attitudes toward hunters themselves.

Attitudes toward hunting also involve attitudes toward animal welfare and animal rights. As typically defined, animal *welfare* allows the use of animals, as long as the animals are treated humanely and with respect, but animal *rights* dictates absolutely no use of animals. While very few Americans support animal rights, many of them support animal welfare. Indeed, most Americans fall in the middle between no use of animals at all and complete animal utilization with no constraints. A study of public opinions on animal rights and animal welfare found that 17% of Americans agree that animals have rights like humans and should not be used in any way and, on the other side, 30% agree that animals are here for

human use and can be utilized regardless of the animal's welfare or rights, both at much lower agreement than the middle ground—that animals can be used by humans as long as the animal does not experience undue pain and suffering (84% agree with this) (RM 2006d). Another study suggests that only 3% of Americans actually live by an animal rights philosophy (RM 1996a).

This support of animal welfare colors Americans' opinions on hunting. For instance, many people, hunters included, approve of hunting in general but do not approve of hunting over bait, which is perceived as *not* providing fair chase and is antithetical to animal welfare. A case in point is Mississippi, where only 28% of the public supports legalizing the hunting of white-tailed deer over bait, a much lower percentage than those who otherwise approve of hunting (RM 2005b).

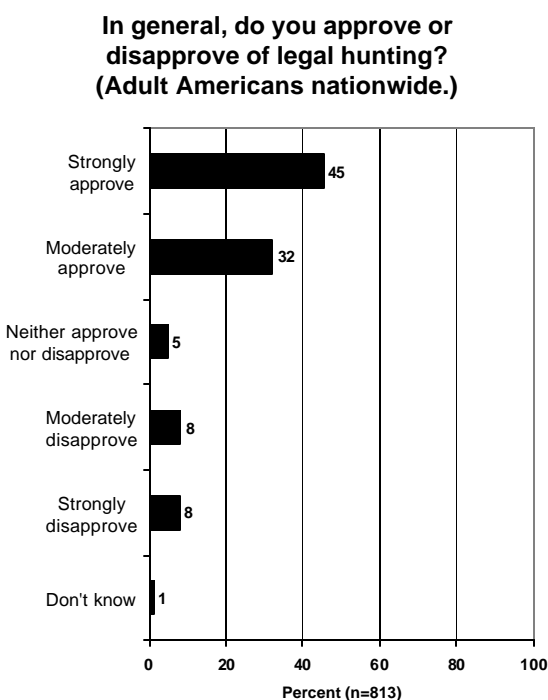
Furthermore, attitudes toward hunting are not fixed. Public opinion changes based on the amount and type of information that people receive on the issues, and it changes based on circumstances within wildlife populations—particularly when the populations of certain species greatly increase. Although Americans' attitudes toward hunting are not simple, but involve a multitude of nuances, the attitudes are not a mystery. Nor are they erratic or confusing. They can be explained based on several defined variables.

## **Support for and Opposition to Hunting**

### ***General Overview***

About three-quarters of Americans support hunting. One nationwide survey found that 77% of adult Americans approve of legal hunting (45% *strongly* approve), while 16% disapprove (Figure 1) (RM 2006c). Another nationwide study found that 75% of adult Americans approve of legal hunting (48% *strongly* approve), while 17% disapprove (RM 2003b). In these surveys, the term, “legal hunting,” was used to ensure that respondents would not confuse the term, “hunting,” to include poaching and other types of illegal hunting, as focus group research has found that many people include these forms of illegal hunting in their conception of the term, “hunting” (RM 1993a). In a nationwide survey that asked a question specifically about the legality of hunting, 81% of adult Americans agree that hunting should continue to be legal (RM 1995).

**Figure 1. Approval and Disapproval of Hunting Nationally**



Source: RM 2006c.

Note that disapproval of hunting does not always translate into wanting to ban hunting altogether. For example, one study found that although a substantial percentage of women personally disapprove of hunting, they generally do not go so far as to say that others should not hunt. One survey asked women if it was okay for women to hunt and for men to hunt, and 95% of them say that it is okay for women to hunt, and 96% say that it is okay for men to hunt; these numbers are both higher than the percentage who personally approve of hunting (RM 2005a).

### ***Support for and Opposition to Hunting Among Youth***

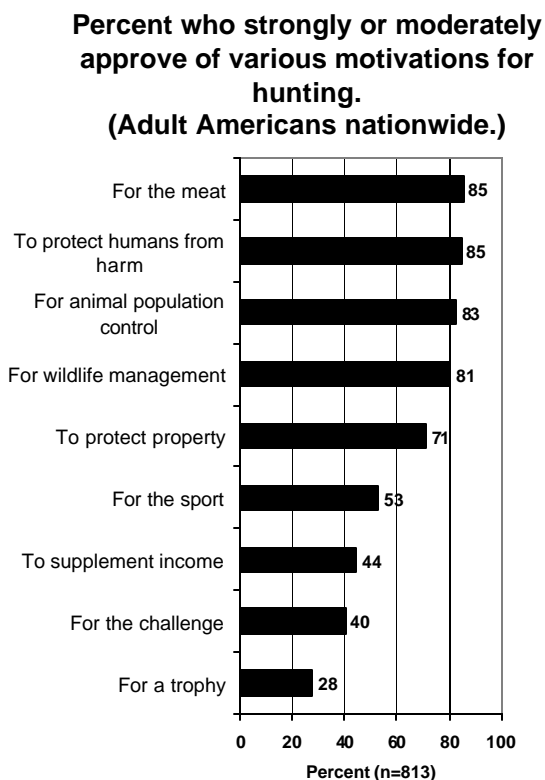
Support for hunting is slightly lower among youth than among adults. Nationally, 58% of youth approve of hunting, while 33% disapprove (RM 2003a). Similar results were found in the early 1980s among children—that they supported hunting at a lower rate than did adults—leading researchers at that time to conjecture that a broad, attitudinal change was taking place in society which would lead to substantially lower support for hunting in coming years as those children became adults (Westervelt and Llewellyn 1985). However, recent research shows that a downward trend in support did *not* occur, which

suggests that a broad, attitudinal change did *not* take place; instead, the implication is that as children become adults, they become more supportive of hunting. Rather than showing a broad, attitudinal shift taking place, the lower rate of support of hunting among children suggests that children simply have lower rates of support than do adults, but they do not necessarily stay opposed to hunting as they age.

### ***Support for and Opposition to Hunting for Various Reasons In General***

**Motivation.** Public opinion on hunting varies when the motivation for hunting is considered. For example, more Americans approve of hunting for food, hunting to manage game populations, hunting to protect humans from harm, and hunting for animal population control than approve of hunting strictly for recreation, for the challenge, or for a trophy (Duda et al. 1998, RM 2006c). Interestingly, one study found that even many hunters (27% of those who hunted in the year prior to the survey) oppose hunting strictly for recreation (MNDNR 1992). Figure 2 shows approval and disapproval of hunting for various reasons, nationally, with a wide disparity among the various reasons (RM 2006c).

**Figure 2. Approval and Disapproval of Hunting for Various Reasons Nationally**



Source: RM 2006c.

There are a multitude of reasons that people oppose hunting. Some of the prominent ones include moral opposition to hunting, feelings regarding animal pain and suffering, hunter behavior, safety issues, perceived (erroneous) damage to wildlife populations and ecosystems, and firearm issues.

One of the most prominent reasons that some people oppose hunting is that they perceive it as being morally wrong: 56% of anti-hunters in one national survey gave this reason for their opposition, the top answer (Kellert 1980). In a study in Minnesota, the top reason for opposition to hunting was morally based: 79% of those who opposed hunting for recreation agreed that it is morally wrong to kill animals (MNDNR 1992).

**Animal welfare.** The pain and suffering of animals also plays a part in opposition to hunting. The national study discussed above found that 18% of anti-hunters were opposed because of the pain inflicted on animals and 15% because they love animals, the second- and third-ranked reasons in that study (Kellert 1980). The aforementioned Minnesota study found that a large majority was concerned about animal pain: 74% of those who oppose recreational hunting agree that they are “bothered by disrespect for animal life,” and 52% agree that they “believe the animals experience a great deal of pain and suffering” (MNDNR 1992).

The perception among some that many hunters are unskilled creates concern among the public. One study examined numerous reasons that may fuel anti-hunting sentiment and found that there was much concern about *wounding* an animal and about the animals’ suffering, rather than the *killing* of the animal; in short, the public does not express concern for quick kills by skilled hunters as much as for slow, sloppy kills (and wounding) by unskilled hunters. Put another way, the researchers found that the public is concerned about the suffering of animals, which they see as being caused by hunter ineptness rather than intentional cruelty (Rohlfing 1978).

One researcher has suggested that an underlying ethical concern for animals is a more common basis for anti-hunting sentiment than is a strong affection for and emotional attachment to animals (Kellert 1980). Related to this is that Americans are more willing to accept wildlife population reductions to benefit wildlife, habitat, or the environment (e.g., to reduce habitat damage that overpopulation of deer

can cause) than to benefit people. For example, whereas a majority would support an increase in the deer herd even if it meant more damage to gardens and crops, a majority would *not* support an increase in the deer herd if it meant less food or poorer health for the deer herd or poorer quality habitat for other wildlife (Duda et al. 1998). In a study in New Hampshire, respondents who were in favor of an increase in the deer herd in the state were asked about whether they would continue to favor an increase in the herd with six specific consequences (each consequence asked about individually). The three consequences that related to negative effects on *deer or habitat*—that more deer would starve, that deer health would decline, and that habitat would decline—were of great concern to respondents (i.e., most would no longer favor an increase in the deer herd given the consequence), while the three consequences that related to negative effects on *humans*—damage to gardens and landscaping, more vehicle collisions, and losses to farmers and timberland owners—were not of great concern to respondents (i.e., most did not change their opinion that the deer herd should be allowed to increase) (RM 2004a).

**Hunter behavior.** Another common reason that people oppose hunting is poor behavior of hunters themselves. One study found that hunter behavior strongly affected opposition to hunting, with the researchers concluding that, in general, the public is not against hunting, but the public “sure feels differently about the hunter” (Rohlfing 1978). These researchers found that the top problems perceived by the public to be associated with hunting had little to do with hunting itself (at least not ethical hunting), but were associated with individual hunters and their poor behavior (e.g., hunters fail to track wounded animals, hunters shoot animals that they are not allowed to shoot, hunters ignore safety regulations, hunters trespass, hunters shoot too close to highways, hunters don’t know what they are shooting at). The aforementioned study of Minnesota residents found that 73% agree that they are “bothered by disrespectful conduct of some hunters” (MNDNR 1992). Another researcher found that disrespectful and unethical conduct of some hunters was among the reasons given for opposition to hunting (Kellert 1980). Even among hunters, poor behavior of other hunters is a reason for opposing hunting strictly for recreation: 27% of hunters in one study opposed hunting strictly for recreation, and they most commonly said their opposition was because of the disrespectful conduct of some hunters (MNDNR 1992).

There is an odd offshoot belief among some in the general public related to hunter behavior that needs to be addressed here. The aforementioned study in Minnesota found that 40% of anti-hunters agree that they “believe hunting for recreational reasons leads to other kinds of violent behavior” (MNDNR 1992). One study directly addressed this misconception that hunting is linked to violent, anti-social behavior. It appears that this argument is based on the link between animal cruelty and violent, anti-social behavior. The incorrect leap, here, is that *hunting* is the same as *animal cruelty*. They, obviously, are not the same, when ethical hunting practices are followed. In fact, no data show that hunters are more likely to commit violent crimes or display aggression than are non-hunters (Causey 1989).

**Safety.** There is some opposition to hunting (and, more importantly, reticence to participate in hunting when not otherwise opposed) based on safety concerns. For instance, one national study found that approximately 2 of 5 Americans feel that hunting is an unsafe recreational activity (RM 1995), and a study in Washington found that 30% of residents think hunting is unsafe (RM 2002a). Finally, nearly a third of Indiana residents (31%) disagree that hunting is a safe activity (RM 2006b). However, when standard safety procedures are followed, hunting is safer than a multitude of other activities, particularly many competitive team sports (NSSF 2006).

**Wildlife populations.** There is also some opposition to hunting based on the erroneous belief that hunting endangers wildlife populations, an example being that 17% of residents of the southeastern states think that overharvesting by hunters, trappers, and anglers is causing some species to become threatened or endangered (RM 2005c). However, legal, regulated hunting does not negatively affect wildlife populations. Indeed, it was the codification of legal hunting and the concomitant regulation of it that protected wildlife species, which were negatively affected by *unregulated* hunting that was occurring prior to hunting’s codification and regulation. Furthermore, the revenue that hunting licenses provide has been used to properly manage wildlife species to bring back their populations and even allowed them to be reintroduced into some areas.

Opposition to firearms is given by some people for their anti-hunting sentiment. In the Minnesota study discussed above, approximately a third of those who oppose recreational hunting agree that they

“oppose the use of firearms” (MNDNR 1992). In the national study also discussed previously, opposition to firearms was among the handful of reasons given for opposing hunting (Kellert 1980).

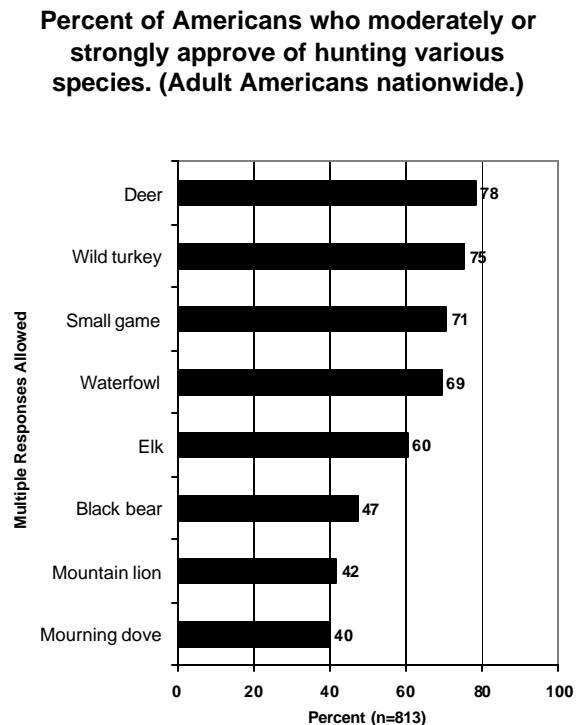
Finally, one study suggests that feelings and beliefs that people hold about specific situations has more influence on their support or opposition to specific hunts than does their general beliefs about hunting overall. The case in point relates to a proposed moose hunt in New Hampshire. A study found that opposition to the proposed moose hunt centered more on people’s beliefs about specific aspects of the proposed hunt (whether there were enough moose to support a controlled hunt, whether too many moose would be killed, and whether the moose hunt would leave enough moose for subsequent wildlife viewing) rather than on their general beliefs about hunting (Donnelly and Vaske 1995). A study in Vermont reiterates this finding: while only 27% of Vermont residents unconditionally say that hunting is acceptable, a majority (69%) say that hunting is acceptable *under some circumstances* (Glass et al. 1995). Also, a study pertaining to hunting black bears in Maryland found variation in support of a proposed black bear hunt based on the conditions associated with the hunt—support was highest when residents were asked if they would support black bear hunting if they knew that the black bear population as a whole would not be endangered (RM 2004b).

### **Support for and Opposition to Hunting Various Species**

Attitudes toward hunting vary according to the species being hunted. Research indicates that the hunting of ungulates, such as deer or elk, or waterfowl is more acceptable than is the hunting of predators, such as bear, mountain lions, or wolves. In one nationwide study, approval of hunting for deer, wild turkey, small game, waterfowl, and elk exceeded approval of hunting for black bear, mountain lion, or mourning dove (Figure 3) (RM 2006c).



**Figure 3. Support of Hunting for Various Species**



Source: RM 2006c.

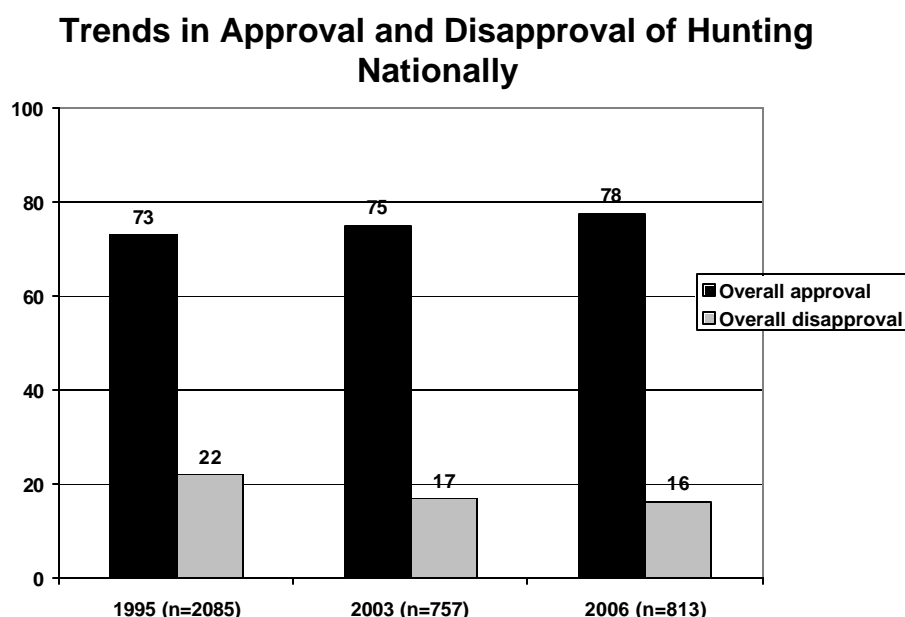
Other studies show differences in approval of hunting for various species, mirroring the nationwide results above. For instance, in Vermont, where moose are involved in many vehicle accidents, 80% of residents support hunting to manage the moose herd, while only 14% oppose it (RM 1996c). The hunting of black bear, on the other hand, does not have that level of support (albeit in a different state): 65% of Maryland residents support hunting as a way to control black bear populations in the state, while 29% oppose (RM 2004b). One study found much opposition to hunting mourning doves, not because of a general opposition to hunting, but rather because many think that mourning doves should be classified as songbirds, not game birds (Linder et al. 1974).

A study of attitudes toward hunting in Washington found large differences in support for hunting according to the species to be hunted. While 86% of Washington state residents support hunting deer and 82% support hunting elk (the ungulates), and 81% support hunting small game like pheasants and turkey and 79% support hunting waterfowl, only 56% support hunting black bear and 55% support hunting cougar (RM 2002a).

## Trends in Support for and Opposition to Hunting

Studies suggest that approval of hunting has increased slightly over the past decade (Figure 4). In 1995, 73% of Americans approved of legal hunting, while 22% disapproved (RM 1995); in 2003, 75% approved and 17% disapproved (RM 2003b); and in 2006, 78% approved and only 16% disapproved (RM 2006c).

**Figure 4. Trends in Approval/Disapproval of Hunting Nationally**



Source: RM 1995, 2003b, 2006c.

One researcher tracked public attitudes over several decades in New Jersey asking residents, “Do you approve of *deer* hunting?” Throughout the 1970s and early 1980s, the approval rate fluctuated from 55% to 49%, but by 1992, the approval rate had risen to 65%. Note that the study asked specifically about *deer* hunting (Applegate 1995).

Research in Maryland suggests that approval of hunting increased from 1993 to 2003. Although the wording in the surveys is slightly different (the 1993 survey asked whether respondents were in favor of or opposed to hunting, the 2003 survey asked about approval/disapproval; the 1993 survey asked about “hunting”, the 2003 survey asked about “legal hunting”), opposition/disapproval went from 41% in 1993 to 17% in 2003 (RM 1993b, 2004d).

Among youth, approval of hunting for various reasons is, by and large, the same now as it was two decades ago. One study, using the same questions as an earlier study, found almost no difference among youth in agreement or disagreement to the statement, “Hunting animals for food is okay” (RM 2003a).

### **Characteristics of Those Who Support and Those Who Oppose Hunting**

A demographic analysis of survey data found that the likelihood to approve of hunting increases as the population density decreases: 70% of urban residents, 72% of suburban residents, 80% of residents in small cities or towns, and 89% of rural residents approve of hunting (RM 2006c). Studies at the state level also found urban-rural differences: 43% of rural residents in Ohio support hunting for recreation, while 33% of Ohio urbanites support hunting for this reason (Miller 1992). In Pennsylvania, 71% of urban residents, 76% of suburban residents, 84% of small city/town residents, and 89% of rural residents support hunting (RM 1996b). A study in Texas found that the majority of state residents who were members of or who expressed a desire to become members of an anti-hunting organization (which made up only 5% of the general population) were urban (Adams and Thomas 1990).

Gender also has a considerable effect on approval of hunting, with males more likely than females to approve of hunting. While 84% of males approve of hunting, only 72% of females approve of it, and, conversely, only 13% of males disapprove of hunting, while 20% of females disapprove (RM 2006c). At the state level, this holds true: 90% of men in Pennsylvania, but only 74% of women in Pennsylvania, approve of hunting (RM 1996b). A study of landowners in Texas found that those who prohibited hunting on their land were more likely to be female than were those who allowed it (Wright et al. 1988). Another study in Texas found that a majority of state residents who were members of or who expressed a desire to become members of an anti-hunting organization were female (Adams and Thomas 1990).

When conditions are placed on the hunting, gender again makes a difference: 47% of men from Minnesota approve of hunting mammals such as deer for recreational reasons, but only 19% of women approve, and 52% of men from Minnesota approve of hunting ducks for recreational reasons, while only

25% of women approve (MNDNR 1992). In Ohio, 49% of men support hunting for recreation, but only 24% of women do, and 17% of men support hunting for a trophy, while only 3% of women do (Miller 1992). Among youth, gender makes a difference in attitudes toward hunting, as well. For example, one study of youth found that 67% of boys support hunting, while only 48% of girls do (RM 2003a).

Higher levels of education are negatively correlated with approval of hunting. One study found that 46% of those with no college experience and 51% of those with some college but no degree *strongly* approve of hunting, while only 43% of those with a Bachelor's degree and 40% of those with a post-graduate degree *strongly* approve of hunting (RM 2006c). This finding holds true at the state level. In Pennsylvania, as the highest level of education rises, the percentage who approve of hunting declines: high school graduate (87%), some college or trade school, but no degree (81%), Bachelor's degree (79%), and post-graduate degree (70%) (RM 1996b). The aforementioned study of landowners in Texas found that those who prohibited hunting on their land were more educated than were those who allowed it (Wright et al. 1988).

Age affects approval rates of hunting, with older people more approving of hunting. For example, a national study found that 83% of Americans 65 years old and older approve of hunting, while only 55% of Americans 18-24 years old approve (RM 2006c). In looking at the results of this study in a different way, those who are the median age or above have an approval rate of 85%, but those younger than the median age have an approval rate of 70%. Another study found that Americans aged 18 to 24 years are less likely to approve of hunting than are Americans over 24 years of age: 61% of the younger group approves of hunting, compared to 74% of the older group (RM 1995). In Texas, a majority of state residents who were members of or who expressed a desire to become members of an anti-hunting organization (which, as previously mentioned, made up only 5% of the general population) were from 18 to 34 years old (Adams and Thomas 1990).

Among youth, age makes a difference in approval of hunting, and this may be related to cognitive and emotional development (whereas the age-related differences in approval of hunting among adults may be societal—for instance, as a higher proportion of the population hunted years ago than do so today,

older people have a greater chance of having been exposed to hunting through family or friends than do younger people nowadays). While 40% of youth in first through fourth grades approve of hunting, 64% of youth in ninth through twelfth grades approve of it (RM 2003a).

Ethnicity is linked to variations in approval of hunting. White Americans have a higher approval rate (83%) than do non-whites (61%) (RM 2006c). A study in Connecticut supports this finding, where 30% of minority respondents disapprove of hunting, but only 18% of white respondents disapprove (RM 1997).

One researcher found that anti-hunters are more likely to be female than male and to live in urban areas with a population of more than one million than to live in more rural areas (Kellert 1980). Another researcher had similar findings, writing that anti-hunters are, in general, well-educated, female, and urban (Shaw 1977).

An important characteristic associated with support of hunting is simply having family or friends who hunt. Indeed, one researcher noted that the best predictor of attitudes toward hunting is a person's affiliation with hunters, finding that people who know hunters are much more likely to favor hunting than are those who do not know hunters (Applegate 1977). Another research team found that one of the strongest correlations to having positive attitudes toward hunting was having a family member who hunts (RM 2002b).

### **Public Opinion on and Perceptions of Hunters and Hunting**

A national study showed that the perception of hunter behavior is not stellar: 64% of Americans agree that a lot of hunters violate hunting laws or practice unsafe behavior while hunting, while only 23% disagree (RM 1995). In a related question, 74% of hunters say that when a hunter violates a hunting law, the hunter knows the law but intentionally violates it, while only 16% of hunters feel that such violations are because the hunter does not know the law. In another question about hunter behavior, 50% of Americans feel that "a lot" or "a moderate amount" of hunters drink alcohol while hunting. It is this negative perception of hunters that leads most Americans to favor mandatory hunter education (RM 1995).

Statewide studies also point out that a substantial percentage of the general public have a negative perception of hunter behavior. In Washington, nearly a third (29%) of the public rated hunter behavior as fair or poor (although “fair” may seem to be a positive rating, note that in the scale in which it is used—excellent, good, fair, and poor—it is in the bottom half) (RM 2002a). Similarly, 24% of Indiana residents characterize the behavior of hunters, in general, as fair or poor, and an equal percentage of Indiana *licensed hunters* characterize the behavior of hunters, in general, as fair or poor (RM 2006b). Also, in this same study in Indiana, 19% of licensed hunters had witnessed a game law violation within the 2 years previous to the survey.

## **Conclusions**

Discussing hunting can be an emotionally charged conversation. Anti-hunters and hunters both feel quite passionate about hunting, so some communication strategies are useful in such conversations. When discussing hunting, one should not assume that the public interprets the word “hunting” the same way that wildlife professionals do. When communicating about hunting, it is best to refer to hunting as “legal hunting” or “regulated hunting.” Doing so ensures that recipients of the communication do not lump poaching in with hunting as meant by the speaker. Support for and opposition to hunting varies based on a number of individual characteristics, including personal values, attitudes toward hunters, attitudes toward animal welfare, the motivation for participating, and the species involved.

Research has suggested that appeals to ecological concerns over sport or recreation concerns will resonate better among the general population. As stated previously, Americans are more willing to accept wildlife population reductions to benefit wildlife, habitat, or the environment (e.g., to reduce habitat damage that overpopulation of deer can cause) than to benefit people. The example given to support this statement was that a majority would support an increase in a deer herd even if it meant more damage to gardens and crops, but a majority would *not* support an increase in a deer herd if it meant less food or poorer health for the deer herd or poorer quality habitat for other wildlife (Duda et al. 1998).

Tangentially, public opinion varies widely based on the species being hunted; for example, if the public thinks a certain species is endangered (even if in reality it is not), they will not support the hunting of that

species; additionally, discussions should focus primarily on hunting ungulates, which the majority of Americans support.

A corollary to this is that hunting, if done for perceived unacceptable reasons, does not become more acceptable even when concomitant benefits to the species are proffered; the basic reason for hunting has to be acceptable. As discussed by one researcher, pointing out the benefits to the species of hunting (in that it reduces the problem of overpopulation of the species) “has not proved a persuasive answer to arguments that wild animals should not be killed for sport” (Bossenmaier 1976). In short, if people object to the primary reason for hunting, no amount of discussion of other benefits will change many peoples’ minds. This same researcher suggested that hunting promotion must strive to put hunting into the context of ecological goals (species management) rather than as a form of recreation or sport. Likewise, almost all Americans approve of legal hunting for food, and survey findings indicate that 95% of hunters nationwide eat the animals they kill (RM 2008). Since hunting for food is a motivation that is much more acceptable to the public than some other reasons for hunting, such as hunting for a trophy, both the ecological goals and utilitarian motivations of hunting should be highlighted whenever feasible.

A fact that relates to ecological concerns is that hunters, through both the revenue from license fees and sporting equipment taxes as well as through voluntary contributions to not-for-profit organizations, have been responsible for much of the conservation of land and protection of wildlife in the United States. After all, the primary source of funding for fish and wildlife agencies in the U.S. is sportsmen (in the gender neutral sense). Indeed, it may be argued that wildlife in North America, especially game species, is better off than in any other continent in the world. Fortunately, research suggests that the majority of Americans understand and agree that hunting is part of scientific management of healthy wildlife populations (79% of residents of the northeastern states and 80% of the southeastern states); the word needs to be disseminated to the small portion (11% of residents of the northeastern states and 10% of the southeastern states) who are not aware of and/or do not agree with this (RM 2004c, 2005c).

American hunters, not antihunters, hold the key to public opinion on hunting. Good behavior in the field counts. Overall, the American public supports hunting and that support appears to be increasing; however, there appears to be a discrepancy between the public's opinion on *hunting* and the public's opinion of the *hunter*. The perception of hunting can be threatened by poor hunter behavior. Some negative public attitudes toward and opinions on hunting appear to be more a result of damage from the "inside out" rather than from the "outside in." Efforts to further enhance public perceptions and attitudes toward hunting must begin with hunter behavior. Any money spent on hunter ethics or hunter education programs is money spent on increasing the overall perceptions of hunters, and ultimately, hunting itself.

Another difference in terminology is important in communicating about hunting. As previously discussed, there is a difference between animal rights and animal welfare, as commonly used. Animal rights groups espouse a philosophy that prohibits any and all use of animals, a philosophy that is not supported by the vast majority of Americans; indeed, it is a philosophy that even many vegetarians do not hold. In fact, in a nationwide study that asked respondents whether they agree or disagree that animals can be used by humans as long as the animal does not experience undue pain and suffering, only 8% disagreed (RM 2006d). Animal welfare, however, as commonly used, refers to humane, respectful treatment of animals. Legal, ethical hunting is not anathema to animal welfare, and communications about hunting need to be clear in this distinction between animal *rights* and animal *welfare*. Wildlife managers must convey the human, caring, and emotional side of wildlife management. Professional wildlife managers care deeply about the wildlife resource. This must be conveyed to the American people whenever possible. More than wanting to know how much you know, they want to know you care. Biological and ecological facts are certainly important, but the public wants to see the side of the profession that cares, as well. Focus on the facts, but don't forget the heart.



## REFERENCES

- Adams, Clark E. and John K. Thomas. 1990. Identifying and responding to antihunting sentiment. *Proceedings of the Annual Conference of the Southeast Association of Fish and Wildlife Agencies* 44:401-7.
- Applegate, James E. 1977. Dynamics of the New Jersey sport hunting population. *Transactions of the North American Wildlife and Natural Resources Conference* 42:103-16.
- , 1995. *Attitudes toward deer hunting in New Jersey: 1972-1992*. Paper presented at the Northeastern Fish and Wildlife Conference.
- Bossenmaier, Eugene F. 1976. Ecological awareness and sport hunting: A viewpoint. *Wildlife Society Bulletin* 4(3):127-8.
- Causey, Ann. 1989. On the morality of hunting. *Environmental Ethics* 11(4):327-43.
- Donnelly, Maureen P. and Jerry J. Vaske. 1995. Predicting attitudes toward a proposed moose hunt. *Society & Natural Resources* 8(4):307-19.
- Duda, Mark Damian, Steven J. Bissell, and Kira C. Young. 1998. *Wildlife and the American mind: Public opinion on and attitudes toward fish and wildlife management*. Harrisonburg, Virginia: Responsive Management.
- Glass, Ronald J., Thomas A. More, and Rodney Zwick. 1995. Public acceptance for hunting, fishing, and trapping in Vermont. *Northeast Wildlife* 52:77-92.
- Kellert, Stephen R. 1980. *Public attitudes toward critical wildlife and natural habitat issues: Phase I of the U.S. Fish and Wildlife Service study*. Washington, D.C.: Government Printing Office. 024-010-00-623-4.
- Linder, Raymond L., Robert T. Wagner, Robert M. Dimit, and Robert B. Dahlgren. 1974. Attitudes of South Dakota residents toward dove hunting. *Transactions of the North American Wildlife and Natural Resources Conference*. 39:163-72.
- Miller, S.E. 1992. *1992 public attitude survey*. Ohio Department of Natural Resources, Division of Wildlife, Inservice Note 664.

- MNDNR (Minnesota Department of Natural Resources). 1992. *Constituent inventory: What Minnesotans think about hunting, fishing and native plant management*. St. Paul, Minnesota: Minnesota Department of Natural Resources, Division of Fish and Wildlife.
- NSSF (National Shooting Sports Foundation). 2006. *Industry Intelligence Report 1*(12).
- RM (Responsive Management). 1993a. *Factors related to hunting and fishing participation in the United States: Hunting focus groups*. Harrisonburg, Virginia: Responsive Management.
- , 1993b. *Wildlife viewing in Maryland: Participation, opinions, and attitudes of adult Maryland residents toward a watchable wildlife program*. Harrisonburg, Virginia: Responsive Management.
- , 1995. *Factors related to hunting and fishing participation in the United States: Final report*. Harrisonburg, Virginia: Responsive Management.
- , 1996a. *Americans' attitudes toward animal welfare, animal rights and use of animals*. Harrisonburg, Virginia: Responsive Management.
- , 1996b. *Pennsylvania residents' opinions on and attitudes toward nongame wildlife*. Harrisonburg, Virginia: Responsive Management.
- , 1996c. *Vermont residents' opinions and attitudes toward species management*. Harrisonburg, Virginia: Responsive Management.
- , 1997. *Connecticut residents', hunters, and anglers' attitudes toward wildlife, fisheries, and forest management*. Harrisonburg, Virginia: Responsive Management.
- , 2002a. *Washington residents' opinions on and attitudes toward hunting and game species management*. Harrisonburg, Virginia: Responsive Management.
- , 2002b. Special data release from *Public awareness of, attitudes toward, and propensity to become a member of Ducks Unlimited in the United States*. Harrisonburg, Virginia: Responsive Management. (Ducks Unlimited allowed the release of some of the data from this study, which otherwise was proprietary.)

- 2003a. *Factors related to hunting and fishing participation among the nation's youth.*  
Harrisonburg, Virginia: Responsive Management.
- 2003b. *Public awareness of, attitudes toward, and propensity to become a member of the Izaak Walton League of America: Research implications for increasing public awareness of and membership in the Izaak Walton League of America.* Harrisonburg, Virginia: Responsive Management. (Izaak Walton League of America allowed the release of some of the data from this study, which otherwise was proprietary.)
- 2004a. *New Hampshire residents' and hunters' opinions on the status and management of big game populations.* Harrisonburg, Virginia: Responsive Management.
- 2004b. *Public attitudes toward black bear management in Maryland.* Harrisonburg, Virginia: Responsive Management.
- 2004c. *Public opinion on fish and wildlife management issues and the reputation and credibility of fish and wildlife agencies in the Northeast United States.* Harrisonburg, Virginia: Responsive Management.
- 2004d. *Public opinion on fish and wildlife management issues and the reputation and credibility of fish and wildlife agencies in the Northeast United States: Maryland.* Harrisonburg, Virginia: Responsive Management.
- 2005a. *Assessment of and recommendations for the Women in the Outdoors program.*  
Harrisonburg, Virginia: Responsive Management.
- 2005b. *Opinions of Mississippi residents regarding deer baiting.* Harrisonburg, Virginia: Responsive Management.
- 2005c. *Public Opinion on fish and wildlife management issues and the reputation and credibility of fish and wildlife agencies in the Southeastern United States: Southeastern region report.*  
Harrisonburg, Virginia: Responsive Management.
- 2006a. *Sunday hunting in North Carolina: Results of a telephone survey of North Carolina residents.* Harrisonburg, Virginia: Responsive Management.

- , 2006b. *Indiana hunting recruitment and retention report*. Harrisonburg, Virginia: Responsive Management.
- , 2006c. *Sportsmen's attitudes*. Unpublished survey about various hunting and fishing issues. Harrisonburg, Virginia: Responsive Management.
- , 2006d. *The public's attitudes toward and participation in the shooting sports*. Harrisonburg, Virginia: Responsive Management.
- , 2008. *Future of Hunting and the Shooting Sports: Final Report*. Unpublished manuscript.
- Rohlfing, A.H. 1978. Hunter conduct and public attitudes. *Transactions of the North American Wildlife and Natural Resources Conference* 43:404-11.
- Shaw, William W. 1975. *Wildlife Division report 2740: Attitudes toward hunting, a study of some social and psychological determinants*. Lansing: Michigan Department of Natural Resources.
- Westervelt, Miriam O. and Lynn G. Llewellyn. 1985. *Youth and wildlife*. U.S. Fish and Wildlife Service. Washington, D.C.: Government Printing Office.
- Wright, Brett A., Ronald A. Kaiser, and James E. Fletcher. 1988. Hunter access decisions by rural landowners: An East Texas example. *Wildlife Society Bulletin*. 16:152-8.