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# Elk and Deer Hunters in Washington State: Affiliations and Ethical Behavior

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# ELK AND DEER HUNTERS IN WASHINGTON STATE: AFFILIATIONS AND ETHICAL BEHAVIOR

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ABSTRACT
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Elk and deer are particularly challenging natural resources to manage due to their mobility and the impacts of other species and humans both direct and indirect. A man-made lack of natural predators has created a need for hunting in order to control the population expansions of herds. Such efforts face two major problems: mobility makes herds difficult to accurately quantify and hunting laws are challenging to enforce. Policies regarding the annual take and type of hunting have been based on the assumption that the primary factor motivating hunters is harvesting more animals. However, this study has found that the primary motivations are actually socializing with friends and family and enjoying the outdoors. The Washington Master Hunter Permit Program was created to provide further outreach to the hunting community than could be accomplished through volunteer efforts and general hunter training alone. Even though, the benefits of the program are based on the assumption that harvesting an additional animal is of primary importance, it turns out that it fits well with the primary motives revealed in the survey. The ethical obligations that underpin motivations for hunting are critical policy considerations in the effective management of elk and deer. The Master Hunter Program seems to be generating social capital by tapping into motivations that stem from ethical commitments that are present throughout the community and dominant in major sub-sectors. To the extent that these commitments are shared by the community at large, the program can develop a hunting community based on this shared morality that will reduce reliance on legal deterrents and lead to more effective management.

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# JOURNAL ARTICLE

## Introduction

Management of elk and deer as natural resources are particularly challenging. Elk and deer move between various types of public and private lands, as such, management collaboration between public land managers and private landowners is particularly important. In a 1997 article in the *Wildlife Society Bulletin* Decker and Chase concluded that "[n]o single, sure-fire secret to success exists in the business of managing people and wildlife for peaceful coexistence across the broad and varied landscape of people-wildlife interactions" (p. 794).Adequate resources to precisely quantify elk and deer are not available, so measurement of outcomes can be difficult. Enforcement of laws is also particularly challenging. Goal setting for how those laws are implemented and what factors should be considered in whether a program is successful or not is varied. While there are many different philosophies of how to tackle complex issues such as wildlife management, many previous studies have concluded that an adaptive approach which integrates stakeholder involvement with public education and an adaptive policy strategy seems to be the best approach (Bailey 1982; Pretty and Smith 2003; Porter and Underwood 1999; Decker and Chase 1997; Wigley and Melchiors 1987).

Because of the complexity of management and enforcement of the law, ethics and individual action are of critical importance to successful outcomes in elk and deer management. This paper examines what motivates hunters and how these motivations affect their ethics and behavior, which ultimately will determine how successful management is. Ethical obligations in the context of this study refers to people's belief systems, or how they make decisions freely without the exertion of force, regarding their behavior in law observance, environmental stewardship, community involvement and care for the herd and individual animal. Affiliations matter because they are the source of ethical obligations. Figure 1 shows the logical framework for how affiliations impact the effectiveness of policies.

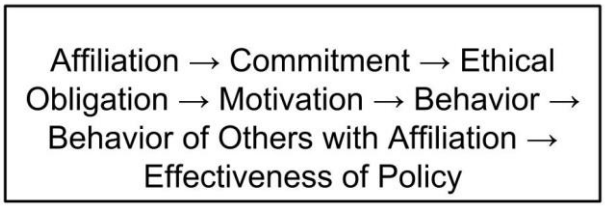


Figure 1 Logical Framework

## Methods

### Data Collection

This survey was conducted in collaboration with Anthony Novack, District Wildlife Biologist for the Pacific and Grays Harbor Counties of the Washington Department of Fish and Wildlife, The Department of Fish and Wildlife and the Kittitas County Field and Stream Club. The survey was mailed to 700 Master Hunters within Washington State. As there are approximately 1000 Master Hunters in Washington state, the 428 respondents represent nearly half of the entire population of Master Hunters. The surveys contained pre-stamped return envelopes addressed to the Central Washington University Geography Department. A follow-up postcard was sent out a few weeks later to remind recipients to return the survey.

There were two versions of the survey, one pertaining to deer hunting and the other to elk hunting. In a couple of instances, the respondents indicated in writing that they did not hunt the type of animal in their survey; in these instances, they were entered by the animal they listed. The first section of the survey contained the sensitive questions which were answered using a coin-flip method; however, the results from this section were not statistically significant for the sample sizes of our categorical groups. The surveys were mailed out containing a dollar coin to be used for this section, which was for the recipient to keep, whether or not they participated in the survey. Further questions pertained to attitudes about hunting and conservation, affiliations, and socio-demographic features. Some surveys were returned with partial answers or completely

blank. As much information as possible was entered for all surveys received and percentages were all based on the total of active responses for each category as opposed to total surveys. The survey responses were entered into an Excel spreadsheet. The data was then randomly spot checked for accuracy.

### Limitations of Study

Despite efforts to provide anonymity to survey respondents, it is possible that respondents were nonetheless not truthful in their answers for fear of repercussions. Since Master Hunters will be expelled from the program for life for any violations, it is of particular concern to them. Many questions are also open to interpretation and assume a basic knowledge of hunting laws. It is a fair assumption that people in the Master Hunter program would have the background to sufficiently understand the survey questions, but there is still a possibility that some misunderstood. If someone is unaware that a certain action they are doing is illegal, for example, they would not be able to accurately answer as to whether they have broken that law. Another factor is that of self-selection, for example, potential respondents who engaged in unethical behavior might be less likely to respond to the survey. Some terminology may have been confusing; many respondents hand-wrote notes on the margins indicating that they did not understand the questions or options available. The weighted questions were on a scale of 1 to 5, with 1 being the greatest value, which also might have caused some confusion and incorrect responses.

## Literature Review

### Background of the Master Hunter Program

The Master Hunter Permit Program in Washington State was started in 1992 through the Washington Department of Fish and Wildlife (WDFW) Hunter Education program (Master Hunter 2015). The program was initially advanced hunter education and about 10 years later evolved into the program in which it is today, with few people involved even aware of its

origins. The program was intended to address a need of further outreach to the hunting community beyond what could be accomplished through volunteer outreach and general hunter training. A primary function of this program was to improve relationships with private landowners in order to allow the WDFW to have better management of elk and deer across the state. The Master Hunter Permit Program bestows a higher level of responsibility, leadership and stewardship to a select group of hunters so they could be leaders in their community to help address various issues. As a management strategy, "partnering" with members of the community, who are stakeholders in the management, and bestowing greater responsibility is necessary for effective management outcomes (Decker and Chase 1997). Master Hunters pledge to be "stewards of the hunt" in their Code of Ethics (2015). In giving Master Hunters a stronger influence in the management process, their input and involvement can have positive impact on public opinion of hunters in general and, ultimately, adherence to laws governing hunting and better implementation of policy (Decker and Chase 1997). Master Hunters are expected to exemplify the highest standard of ethical behavior and are given the benefit of special hunts and extended hunting seasons. The benefits to the Master Hunter for joining the program includes special hunting privileges, extended seasons, and intrinsic value. The permit is obtained through shooting proficiency testing, material training and testing. The testing materials apply to all Department of Fish and Wildlife laws, not just those pertaining to hunting. Through this program the WDFW was able to deepen relationships with private landowners in order to collaborate and better manage elk and deer populations; the Master Hunter Code of Ethics (2015) even states "[a]s a Master Hunter, I shall play a key role in improving relationships with all landowners, thus ensuring continued access to private and public lands." This is of particular concern because of the significance of having access to wildlife management on private property for proper management (Wigley and Melchiors 1999). As found in a study by Todd in 1980, "hunter training, if it were effective in altering hunter attitudes and behavior, could significantly alter attitudes and behavior, could significantly alter attitudes of landowners, and perhaps the undecided public, toward hunters" (Pg. 57).

The program initially was an advanced hunter education program which had three sub-categories with the intent of attracting various demographics across the hunting community, which were titled "sharp shooters," "conservationists" and "master hunters". However, a clear

definition of what the distinction between these types were is not available. With the benefits of the permit, including extended hunting seasons, additional opportunities to hunt and the intrinsic value of being a Master Hunter, many people are attracted. However, whether their motivations for being a Master Hunger align with the goals of the program is uncertain. Master Hunters were colloquially referred to as “Master Violators,” a reputation which is inherently harmful to the goals of the program. Recently, just before this survey was done in 2012, all Master Hunters were required to reapply and background checks were run on all people applying to address this issue. During this time, many Master Hunters left the program. Although this process may have deterred so called “Master Violators” from continuing to be Master Hunters, it may also have caused lower numbers of Master Hunters from the population, which demonstrates the type of hunter this program is aimed at. “Because the majority of funds for wildlife management continues to come from license sales to hunters, changes in the number of these recreationists can have important impacts on wildlife programs” (Applegate 1989). This paper addresses a study done on Master Hunters after this shift and looks at their behavior and perceptions of conservation and ethics regarding hunting practices. The Master Hunters surveyed were split into various overlapping groupings based on the type of hunter they self-identified as and what they indicated their primary motivation for hunting was. Hunter types were shooter, limiting-out, trophy and method hunters. Primary motivations for hunting options were “for meat,” “to be active outdoors and participate in nature,” “to achieve success in the competition against wild animals,” “a chance to use my guns” and “socializing with my family and/or friends.” Table 1 shows the percentages in each category of type of hunter and primary motivation for hunting.

While some of the categories in Table 1 are relatively small, such as the motivational category “Chance to use my guns,” which has only 7 respondents, it is still indicative of the overall trend. This survey represents nearly half of all Master Hunters and as an elite group and not a general population survey, it can be assumed that all individuals within each category sufficiently represent that category. Wording might have been misunderstood for the motivation “Achieve success in the competition against wild animals,” since this category only accounts for 8.79% of the respondents, even though the method hunter type would be the closest parallel and that category had 41.57%. While" limiting-out" hunters, or hunters whose primary motivation is

harvesting as many animals as possible by using all tags, and hunting for meat did represent a large proportion of the respondents, as current assumptions would predict,

*Table 1 Types of Hunters and Primary Motivations*

| **Type of Hunter** | Number of Respondents | Percentage % |
|---|---|---|
| ● Shooter: Interested in shooting and using my weapon | 23 | 5.46 |
| ● Limiting-Out: Primary motivation is to harvest an animal | 170 | 40.38 |
| ● Trophy: Primary interest is in shooting a trophy class animal | 52 | 12.35 |
| ● Method: I impose restrictions on myself that make it more difficult to harvest an animal | 175 | 41.57 |
| **Primary Motivation for Hunting** | | |
| ● For Meat | 158 | 37.53 |
| ● To be active outdoors and participate in nature | 231 | 54.90 |
| ● Achieve success in the competition against wild animals | 37 | 8.79 |
| ● Chance to use my guns | 7 | 1.66 |
| ● Socializing with my friends and/or family | 52 | 12.35 |

they were not the only significant categories. Being active in the outdoors was the primary motivation for the majority of respondents. This appreciation of the outdoors is indicative of the ethical alignment of Master Hunters; however, it does raise concern over hunter desertion. In Applegate's 1989 study of hunters in New Jersey, "the most often cited reason for quitting was that other recreational options were preferred over hunting"(pg, 477) Interestingly, previous studies have shown that "distance from home, access to private land, and place of residence had little or no influence on desertion behavior," which would appear to be in contrast with fundamental assumptions of the benefits of the Master Hunter program.

**Master Hunter Code of Ethics.** The following is the Code of Ethics published by the Washington State Department of Fish and Wildlife (WDFW). After review of the program

which required all Master Hunters to re-apply, this code became a form which all Master Hunters are required to sign.

> As a master hunter, I am a steward of the future of hunting. I pledge to act in accordance with the highest ethical standards. I will display proper respect for game, landowners, other hunters, the public, all fish and wildlife laws. I pledge to be a conscientious, committed hunter who cares about the future of hunting. I will assume a leadership role among my peers and will do so by exhibiting exemplary conduct in the field. As a Master Hunter, I shall play a key role in improving relationships with all landowners, thus ensuring continued hunter access to private and public lands. I pledge to continue to expand my knowledge of wildlife and natural resource management practices and understand the role I play in these practices. "I pledge to be a steward of the hunt." (2015)

This code of ethics is broad in scope and not particularly specific; however, it does indicate the priorities of ethics which are expected of Master Hunters.

The Master Hunter program addresses many of these issues through giving greater rights along with greater responsibilities to a select few hunters. These hunters received further education and a voice in decision making. As demonstrated by the high level of return rate of surveys, this group of hunters feels a strong ethical obligation to assist in the management of elk and deer. “Policy makers and practitioners have tended to be preoccupied with changing the behavior of individuals rather than groups or communities.” (Pretty and Smith 2003) The Master Hunter program seeks to create a community of hunters with better behavior. As stewards of the land, they can lead by example for other hunters and effect the community at large building social capital.

**Elk and Deer Management**

“Wildlife management is not a science. Wildlife managers apply the science of biology. They use methods of science. But management is an art . . . As an art wildlife management is the application of knowledge to achieve goals” (Bailey 1982). The Master Hunter program seeks to address several challenges in Elk and Deer Management, in particular, improving relationships with private landowners. Elk and deer populations are a mobile resource that has no reasonably

quantifiable measure. Management of elk and deer populations initially was a classic case of the tragedy of the commons, however, human involvement in their ecosystem as created a dichotomy of overabundance, creating the need for hunters, and scarcity of hunters wanting more elk or deer than are available. Elk and deer are a shared resource that can be harvested by one person at the expense of others seeking it. “When natural capital is considered free, and so allocated no monetary value, the market signals that it is more valuable when converted into something else” (Pretty and Smith 1999). A permit system monetizes the value of hunting deer to some extent, but more so, puts parameters on the levels of hunting occurring and in what manner, addressing both the need for hunting to occur and control of the manner in which it is occurring.

Natural resources managers are presented with challenges in getting a complete view of management tasks presented to them. “Management can and should proceed in the absence of complete knowledge” (Porter and Underwood 1999) . Natural resource managers are very much like the blind men and the elephant; each seeing their own aspect of the issue with no one getting a clear picture of the whole issue (Porter and Underwood 1999). Even in cases where outcomes are difficult to quantify, it is important that policy goals are clearly defined.

> Wildlife biologists must consider a diversity of goals. Animals are managed for harvest, for observation, for biological values as parts of productive ecosystems, to control pests and communicable diseases, to enhance the safety of motorists or backpackers, and for many other purposes. A diversity of conflicting goals makes clear definition of goals difficult. (Bailey 1982)

The WDFW also has the dual goal of environmental protection, while providing opportunity for outdoor recreation. These two goals may at times be at odds. It is not reasonably possible with available resources to quantify elk and deer populations across the state, let alone measure them at any regular frequency.

> In comparison with budgets for managing other natural resources, budgets for wildlife management tend to be small. Yet, for reasons given above, a comparatively large budget may be needed for understanding and measuring wildlife resources. Consequently, most wildlife management programs are limited by budgets and by inadequate knowledge of

> local populations and habitat relationships. These limitations require that most wildlife programs be extensive rather than intensive(Bailey 1982)

As such, focusing on quantifiable data for management will hardly lead to better outcomes. Hardin (1968)states in "The Tragedy of the Commons, "An implicit and almost universal assumption of discussions published in professional and semi-popular scientific journals is that the problem under discussion has a technical solution. A technical solution may be defined as one that requires a change only in the techniques of the natural sciences, demanding little or nothing in the way of change in human values or ideas of morality."Management of elk and deer is precisely this type of issue; one which requires a change in human values or ideas of morality. This is particularly important for enforcement of management practices because this change must originate at the community level.

A human-created shortage of apex predators and an ever-changing political landscape has promoted the rapid expansion of elk and deer populations. Hunting is a necessary tool to address overpopulation issues. Without recreational hunting of game, population management on a large scale would not be possible (Decker and Connelly 1989). Hunter motivation is an important aspect of management be studied in order to promote desired behaviors within the hunting community. As stated by Decker and Chase(1997), ". . . the need for effective hunter participation in the Deer Management Permit system was critical, so understanding hunter motivations was needed to ensure these volunteer 'tools' of management took enough deer to control populations." In other words, since motivations affect behavior, it is intrinsically connected to how successful a management plan based on a permit system will be. Assumptions have been made about hunter's motivations for hunting.

> An implicit assumption of antlerless deer harvest systems that depend on voluntary participation is that deer hunters highly value shooting an extra deer or any deer and will be motivated to use permits for that reason. Studies have shown generally that success in harvesting a deer is important to many hunters, but seldom of greatest importance for most hunters. Thus, if shooting deer is not a primary motivation for hunting participation, antlerless deer harvest may not be sufficient to meet management objectives. (Decker and Connelly 1989)

As such, it is critical to understand motivations in order to know how to best motivate with policy and regulate their behavior when hunting. This paper addresses how well our assumptions match actual opinion and behavior of hunters.

**Enforcement of the Law**

Further complicating the issue, enforcement of hunting laws is very difficult. Elk and deer exist on a myriad of public land types under the control of various agencies. They also exist on private property. Relationships with private landowners regarding wildlife management is of critical importance, but unfortunately, landowners are often hesitant to cooperate with hunters and agencies because of concerns about hunter behavior (Wigley and Melchiors 1987). Continuing to have a collaborative effort in management between private landowners and hunters requires that hunters show better behavior, as asked of Master Hunters.

When enforcement is not reasonably feasible, such as in remote areas or at the scale in which hunting occurs, policy effectiveness is contingent on personal behaviors of hunters. “Rules and sanctions give individuals the confidence to invest in the collective good, knowing that others will also do so, and sanctions ensure that those who break the rules know they will be punished” (Pretty and Smith 1999). This is why opinions on severity of punishment and likelihood of getting caught for violations is of such importance. “Relationships of trust, reciprocity and exchange, common rules, norms and sanctions, and connectedness in groups are what make up social capital, which is a necessary resource for shaping individual action to achieve positive biodiversity outcomes” (Pretty and Smith 2003). The Master Hunter Program is able to build precisely this type of social capital through creation of a community that sees themselves as “Stewards of the Land” with common rules, norms and sanctions and are educated to set a high standard of behavior. 84.1% of the Master Hunters surveyed said that they participated in volunteer activities to benefit wildlife within the past two years, demonstrating a high level of stewardship.

## Results

Because of the difficulty in accurately quantifying outcomes of policies on herd populations, empirical data, through surveys, is especially beneficial to understanding the program's effectiveness. Bailey accurately summarizes the issue around public opinion on changes regarding elk and deer management:

> Public response to the program is measured as a test of selected goals and treatments. While the public may respond spontaneously to grossly unsatisfactory programs, a more precise measure of public concern can be obtained through planned surveys of opinions. (1982)

Since effectiveness of elk and deer management can't be pinned down with objective scientific measurement, such as herd population counts, we must rely on the perceptions of people whose actions determine the successfulness of the policy. This is where surveys, such as the one done in this study, become significant.

Out of 428 surveys returned, only 12 respondents were female, representing 2.8% of the respondents, which was as expected with the population being studied. Previous studies have shown that women tend to express stronger emotional attachments to animals, in particular "in relation to large and esthetically attractive species," such as elk and deer (Kellertand Berry 1987). "Males, in contrast, had significantly higher scores on the utilitarian and dominionistic attitude scales . . . reflect[ing] a greater willingness among males to endorse exploitation of animals, or the usurpation of wildlife habitat to yield increased material gains" (Kellert and Berry 1987). However, the same study also showed a very low difference between men and women on naturalistic and ecological scales (Kellert and Berry 1987)

Seventy point five percent of respondents went hunting within the past 2 years, indicating that the majority of the people surveyed are active hunters. However, 46.4% of respondents also answered that they harvested no deer/elk in the past year. These numbers are in line with expectations of the WDFW when they issue hunting tags. Although previous studies have shown a significant relation between hunting participation and local population density, this was not apparent within this study (Applegate 1984).

Although some of the categories have small sample sizes within them, the data still sufficiently provides information to draw conclusions from. The Master Hunters are an elite group of hunters, as opposed to a survey done of a general population. With approximately 1000 Master Hunters in Washington State, the respondents represent nearly half of all Master Hunters. It can be safely assumed that all of the Master Hunters surveyed are representative of the hunting population in general. The 61.1% return rate on a mail survey was astonishing and indicative of the group's helpful nature and responsiveness in itself.

**Motivations and Ethics**

Ethical obligations on an individual level are influenced by many factors, including personality traits, empathy, internal-external orientation, dependence on others, self-defense and political values (Krebs and Denton 2005). This paper focuses on the ethical obligations on a group level, looking at how ethical obligations of a group to the law, family and friends, self, and middle-range collectives, such as the Master Hunter Association, effect behavior of the group as a whole (Waldo 1980). Individual's behavior and personal code of ethics affects their behavior and also influences other people within their community, creating the four main features of social capital: "(1) relations of trust; (2) reciprocity and exchanges; (3) common rules, norms, and sanctions; and (4) connectedness in networks and groups." (Smith and Pretty 2003) Unethical behavior by hunters sets a precedent that other hunters will follow; it breaks trust and disconnects the group. Creating a community through the Master Hunter program has significant impact on behavior because it adds positive social capital as a benefit of good behavior. "As social capital lowers the costs of working together, it facilitates cooperation. People have confidence to invest in collective activities, knowing that others also do so. They are also less likely to engage in unfettered private actions with negative outcomes, such as resource-degradation" (Pretty and Smith 1999). As such, opinions of other hunters behaviors and likelihood of enforcement are of particular interest in this study. Examples of unethical behavior would include trespassing on private land, damaging private or public property, shooting without a backstop, improper disposal of animal remains, allowing an animal to suffer unnecessarily, or tagging violations.

Table 2 clearly shows that, in general, Master Hunters believe that some level of poaching is occurring in the areas where they hunt, with only 2.1% stating that no poaching occurs. Most striking is the "Chance to use my guns" motivation group, having 42.8% state that a significant level of poaching is occurring. Groups with more intrinsic motivation tended to view there being less poaching occurring, while groups with more competitive motivation tended to view more poaching occurring. This perceptional difference could be due to perceived scarcity of opportunity to harvest an elk or deer. Table 3 shows witnessing and reporting behavior broken down by types of hunters and primary motivational categories. In building a community of ethical hunters, this is of primary importance.

**Table 2** Amount of Poaching Believed to Happen in Areas They Hunt

| | **Significant %** | **Moderate %** | **Minimal %** | **None %** | **Don't Know %** |
|---|---|---|---|---|---|
| **All Respondents** | 12.4 | 28.6 | 35 | 2.1 | 22.6 |
| **For Meat** | 11.5 | 28.7 | 28.7 | 2.5 | 27.4 |
| **To be active in the outdoors and participate in nature** | 12.6 | 25.2 | 36.1 | 2.2 | 23.9 |
| **Achieve success in the competition against wild animals** | 8.1 | 29.7 | 32.4 | 0 | 27.0 |
| **Chance to use my guns** | 42.8 | 14.3 | 14.3 | 0 | 28.6 |
| **Socializing with my friends and/or family** | 13.5 | 25 | 30.7 | 3.8 | 28.8 |

The very low numbers of respondents who were cited for a hunting violation is as expected, not only because of the severity for being cited as a Master Hunter and losing the permit for life, but also because of the recent removal of Master Hunters who had been cited. While only 16.2% indicated that they saw illegal activity by hunters, 30% witnessed something they considered to be poor sportsmanship or an ethical violation by other hunters. This indicates areas for improvement in the future. Focus groups to determine which poor sportsmanship or ethical violations are occurring would be beneficial.

*Table 3 Witnessing and Reporting Behavior*

| | **Witnessed Illegal Activity** | **Reported to Enforcement (of people who witnessed illegal activity)** | **Witnessed Something Considered Poor Sportsmanship or Ethical Violation** | **Saw wildlife enforcement personnel during past 2 years of hunting** | **Volunteered any time to projects that benefit wildlife** | **Cited for hunting violation in past 2 years** |
|---|---|---|---|---|---|---|
| **All Respondents** | 16.2% | 22.7% | 30.0% | 55.5% | 84.1% | 0.47% |
| **Type** | | | | | | |
| • **Shooter** | 4.3% | 20% | 14.3% | 52.1% | 91.6% | 0% |
| • **Limiting Out** | 17.0% | 20.8% | 69.4% | 53.8% | 80.7% | 0.58% |
| • **Trophy** | 21.1% | 16% | 38.5% | 48.1% | 84.9% | 0% |
| • **Method** | 16.1% | 25.9% | 31.4% | 59.1% | 87.5% | 0.57% |
| **Motivation** | | | | | | |
| • **For Meat** | 17.6% | 27.8% | 27.7% | 60.3% | 82.4% | 0.62% |
| • **To be active in the outdoors and participate in nature** | 17.2% | 21.5% | 33.2% | 54.7% | 84.9% | 0% |
| • **Achieve success in the competition against wild animals** | 10.8% | 50.0% | 27.0% | 51.4% | 84.2% | 0% |
| • **Chance to use my guns** | 16.7% | 100% | 40% | 50% | 57.1% | 0% |
| • **Socializing with my friends and/or family** | 15.1% | 25% | 32.1% | 62.3% | 84.9% | 1.92% |

**Table 4** Scale Questions (Averages of scale of 1 to 5 with 1 being the greatest)

| | **How thoroughly read Big Game Hunting Seasons and Regulations Pamphlet** | **How effective is wildlife enforcement?** | **Likelihood of getting caught for violation?** | **Severity of punishment** |
|---|---|---|---|---|
| **All Respondents** | 1.8 | 3.6 | 3.5 | 2.9 |
| **Type** | | | | |
| ● **Shooter** | 2.0 | 3.5 | 3.7 | 3.2 |
| ● **Limiting Out** | 1.9 | 3.5 | 3.5 | 2.7 |
| ● **Trophy** | 1.7 | 3.9 | 4.1 | 3.1 |
| ● **Method** | 1.7 | 3.5 | 3.5 | 3.0 |
| **Motivation** | | | | |
| ● **For Meat** | 1.7 | 3.4 | 3.4 | 2.8 |
| ● **To be active in the outdoors and participate in nature** | 1.8 | 3.6 | 3.7 | 3.0 |
| ● **Achieve success in the competition against wild animals** | 1.7 | 3.7 | 3.7 | 2.9 |
| ● **Chance to use my guns** | 2.0 | 3.8 | 3.8 | 3.0 |
| ● **Socializing with my friends and/or family** | 1.9 | 3.5 | 3.5 | 3.0 |

**Categorization of Ethical Alignments.** Previous studies have categorized motivations for hunting in many different ways. Hunting, as a recreational outdoor activity, provides people with a sense of satisfaction for various reasons (Decker and Connelly 1989). Decker et al. (1987) categorized recreational hunting motivational categories as affiliative, achievement, and

appreciative. Applegate and Otto (1982) divided the categories into 5 groups: shooter, limiting out, trophy, method, and relaxation. Another perspective has been to look at "motivational orientations" in three categories: meat, sport and nature (Kellert 1978). Moore (1973) identified the primary motivations for hunters to be aesthetic, affiliation and challenge. It is important to note that all of these categories of motivation can be generally observed through attitude about hunting and affiliation.

Affiliations matter because they are the source of ethical obligations, and as such, have a direct relationship with a person's behavior, and, ultimately, with the effectiveness of policy. Decker and Connelly (1989) observed that the majority of hunters in their study were primarily affiliative-oriented and appreciative-oriented, as opposed to achievement-oriented. Decker and Connelly (1989) then concluded that the primary motivation of hunters being "rooted in the areas of personal achievement, affiliation with friends and family, and appreciation of the outdoors" needs to be considered when creating policy for elk and deer management.

Figure 2 shows the various elements of ethical obligations and how they correspond to motivations of hunters. Hunters have ethical obligations to their community, the law, the environment and to the herd. Community obligations include behavior such as respecting others, including their property and setting an example. This obligation is particularly important for setting an example and building a sense of social capital in ethical behavior when hunting. Applegate (1989) found that, "[i]n general, respondents with strong family involvement with hunting demonstrated persistence in hunting . . . [t]hose who hunted only with friends had lower retention levels"(pg. 479).

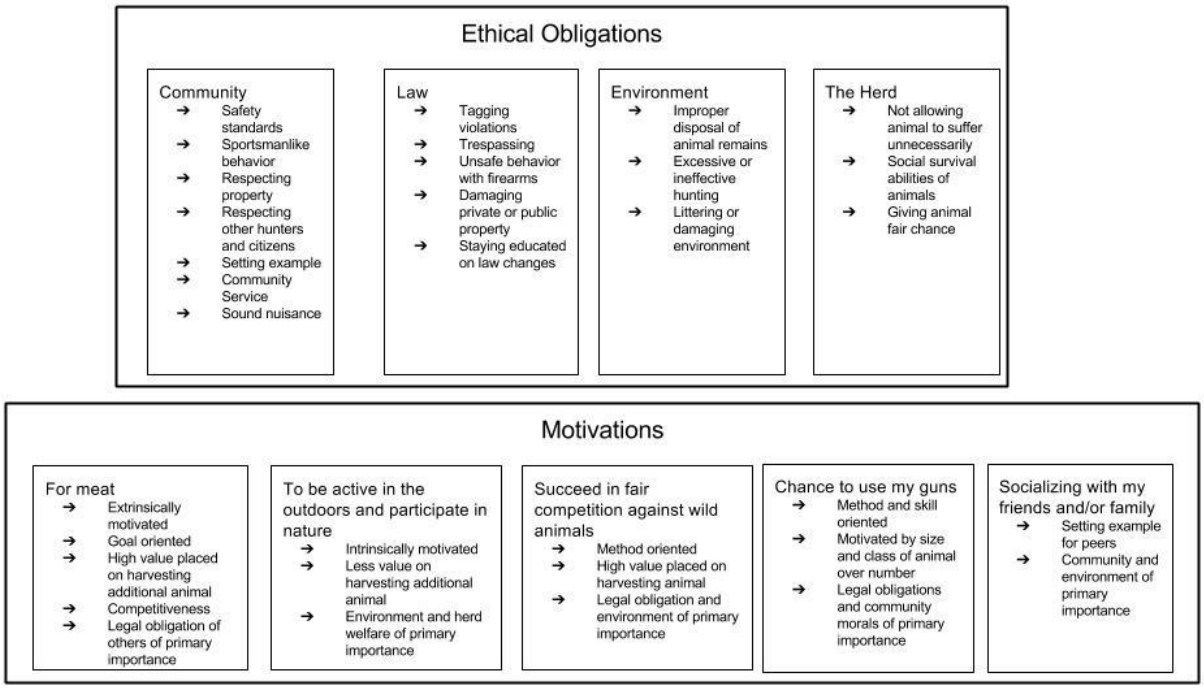


**Figure 2 Ethical Obligations and Motivations**

*Table 5 Overlapping Percentages of Type and Motivation*

| | **Shooter %** | **Limiting-Out %** | **Trophy %** | **Method %** |
|---|---|---|---|---|
| **Meat** | 33.3 | 55.9 | 23.1 | 24.1 |
| **Outdoors** | 58.3 | 41.8 | 59.6 | 63.8 |
| **Competition** | 4.2 | 6.5 | 23.1 | 5.7 |
| **Guns** | 12.55 | 0 | 5.8 | 0.57 |
| **Socializing** | 8.3 | 5.8 | 15.4 | 12.1 |

The above table shows the relationship between types of hunters and their primary motivations. It, in general, aligns with what we would expect to see. Shooter focused hunter are mainly motivated by being in the outdoors. Limiting-out hunters are primarily motivated by meat, which is very logical; these are the hunters that policies currently assume represent all hunters. Unexpected is method hunters only having 5.7% indicating that succeeding in the

competition against wild animals is their primary motivation. This could be due to confusion on wording.

## Conclusion

The paradigm of how we address management issues in elk and deer management needs to be rethought;False assumptions of motivations leading to a heavy reliance on legal deterrents are more costly and less effective than other options. Expanding the Master Hunter program can involve the community of hunters who can build a community of shared ethical obligations, addressing challenges of legal deterrent effectiveness in remote areas and private property.

There seems to be a consensus that wildlife management is ineffective, punishments are not severe enough and likelihood of being caught is too low. As previously explained, these are related as their perception of how severe punishment is and likelihood of being caught affects their overall perception of effectiveness of management. With less of a focus on legal enforcement and more of a focus on building social capital, these perceptions could shift for the positive.

Further study is needed to determine if the characteristics found in this study of Master Hunters are applicable to the general hunting population. In determining policy that properly aligns with motivations of hunters, a focus group would be particularly helpful. Since we can't rely on objective scientific measures and enforcement of legal deterrents, building social capital and shaping policies around motivations is of greatest importance.

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