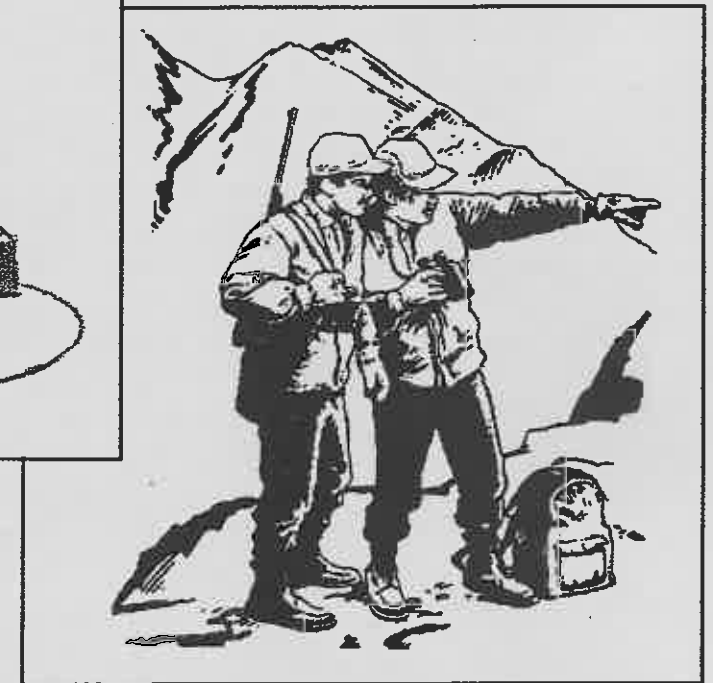


**PRELIMINARY INSIGHTS ABOUT
THE SOCIOCULTURAL IMPORTANCE
OF HUNTING AND TRAPPING**

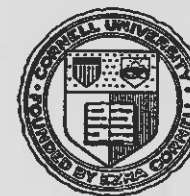
by

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HDRU Series No. 95-2

March 1995



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HUMAN DIMENSIONS RESEARCH UNIT PUBLICATIONS SERIES

This publication is part of a series of reports resulting from investigations dealing with public issues in the management of wildlife, fish, and other natural resources. The Human Dimensions Research Unit (HDRU) in the Department of Natural Resources at Cornell University is a nationally-recognized leader in the study of the economic and social values of wildlife, fish, and other natural resources and the application of such information in management planning and policy. A list of HDRU publications may be obtained by writing to the Human Dimensions Research Unit, Department of Natural Resources, Fernow Hall, Cornell University, Ithaca, NY 14853.



ACKNOWLEDGMENTS

This project was carried out in conjunction with the international Human Dimensions in Wildlife Study Group. Representatives of the Group who contributed to this project in addition to the authors were:

Dr. James Armstrong, Auburn University
Dr. Thomas Heberlein, University of Wisconsin
Dr. Michael Manfredo, Colorado State University
Dr. R. Ben Peyton, Michigan State University
Dr. William Shaw, University of Arizona
Mr. Richard Stedman, University of Wisconsin
Dr. Daniel Witter, Missouri Conservation Department

Efforts of the project team were supplemented by a committee of agency and organization representatives that provided review for the development of the agency survey conducted in conjunction with this project. Members of that committee were:

Peter Boxall, Department of Natural Resources Canada, Northern Forestry Centre
Calvin Dubrock, Pennsylvania Game Commission
Mark Duda, Responsive Management
Fern Fillion, Canadian Wildlife Service
Gary Kania, National Rifle Association
George Lapointe, Proactive Strategies for Fish and Wildlife Management
Perry Olson, Colorado Division of Wildlife
Gary Parsons, New York State Department of Environmental Conservation
Cheryl Riley, National Wildlife Federation
Gordon Robertson, West Virginia Division of Natural Resources
Glen Ruh, Izaak Walton League of America
Daniel Witter, Missouri Department of Conservation

This study was sponsored by the U.S. Fish and Wildlife Service, Division of Federal Aid, under Grant Agreement No. 14-48-0009-93-1336. Sylvia Cabrera, Division of Federal Aid, served as Project Officer for the study.



EXECUTIVE SUMMARY

Although hunting and trapping enjoy widespread popularity, a substantial body of evidence indicates that these activities are gradually losing ground in North America both as recreation activities and as significant parts of the fabric of North American life. Americans and Canadians who do not participate have become further removed from the meaning and importance of these activities to participants, and political opposition to hunting and trapping has grown. In recent years, many wildlife management administrators and policy makers, while attempting to serve all of their constituencies, have sought better information about the values of hunting and trapping. Such inputs have been used to balance against arguments by some constituencies that hunting and trapping should be more restricted or abandoned.

The wildlife values data that have been quantified and reported to date have been primarily economic. Economic values, while tremendously important, do not capture the total value spectrum conceptually, nor do the large economic figures associated with hunting and trapping adequately convey to the public the importance of these activities to the way of life of individuals, families, and other social groups. If the nonparticipating public does not understand and recognize these values, the fact that hunting and trapping have significant economic attributes will not result in widespread public recognition of their importance.

The objectives of this Phase I study were as follows:

- ① Develop and conduct a survey of U.S. state and Canadian provincial wildlife agencies to determine the specific types of harvest recreation activities believed to be of greatest sociocultural significance and the perceived risk of loss of those sociocultural benefits due to combinations of societal shifts away from hunting and trapping and legal threats from the animal rights and animal welfare movements.
- ② Update a Cornell University annotated bibliography on the sociocultural aspects of hunting and trapping and review that bibliography in conjunction with results from the above survey as input to developing a Phase II study proposal for specific investigations of the sociocultural benefits of hunting and trapping.
- ③ In association with representatives of the international Human Dimensions in Wildlife Study Group, review the results of Objectives 1 and 2 above and develop a research proposal to define and measure more specifically the sociocultural benefits of specific forms of hunting and trapping that are most significant across the U.S., and if possible, in Canada.
- ④ Prepare a final report incorporating the above.

This project was carried out in conjunction with the international Human Dimensions in Wildlife Study Group. In addition, an agency/organizational committee provided review for the development of the agency survey conducted as part of this project.

The findings of this Phase I study have significant and perhaps portentous implications for the future of hunting and trapping, both as a part of the cultural fabric of North America and as traditions that heretofore have been inextricably interrelated with wildlife management. Some highlights are:

- ▶ Nearly every responding state and province was aware of several culturally important hunting and trapping traditions; responding agencies collectively listed (with some overlap) 80 different traditions within their states and provinces that they believed to be culturally important. Many of these traditions (at least five in each region of the U.S. and Canada) were perceived to be highly threatened within the next decade by multiple forces, including the animal rights movement, cultural changes in society, and a variety of other reasons that also include such factors as loss of habitat. However, except for situations in which a defined tradition corresponded to a type of license, wildlife agencies typically had little data, and for the most part provided estimates of numbers of participants and some description of typical hunts based on general experiential knowledge rather than systematically collected information.
- ▶ The literature offers perspectives on the evolution of hunting and trapping into modern anglo, black, and native cultures and provides descriptive or anecdotal evidence of some of the social meanings and values of hunting. However an extremely limited number of scientific studies document the cultural importance of any hunting or trapping tradition. Human dimensions studies of the past two decades have established typologies of wildlife values, measured a range of attitudes about wildlife, hunting and trapping, and helped explain both how acculturation to hunting occurs and how societal changes are causing breakdowns in the degree to which hunting is being passed on to future generations. However, only within the past two or three years have a limited number of studies attempted to explicate and measure the values of hunting traditions to participants and to their social groups.

If those who are in wildlife administration, management, and research - the "wildlife professionals" - have such limited understanding and documentation of the underlying values of hunting and trapping, it is difficult to understand how we can rationally expect or even hope that the 93% of the population who do not engage in these traditions would understand and appreciate their importance. A great deal of research is needed and results communicated to the general public effectively to raise understanding of the multifaceted values of hunting and trapping.

Through a limited effort, a group of human dimensions researchers developed nine general prospectuses on differing but complementary aspects of the sociocultural values of hunting and trapping. We emphasize that this is an initial attempt to define a large research agenda that would take a number of years to complete under the best of circumstances. No attempt was made to prioritize the nine areas. The authors and contributors realize that these would need further refinement to meet the context and agency/organizational priorities for a specific research initiative. However, we believe that the prospectuses taken together adequately portray the breadth of research needed to develop a comprehensive understanding of the sociocultural importance of hunting and trapping.

We recommend that the IAFWA Grants-in-Aid Committee establish the sociocultural importance of hunting and trapping as one of their priority areas for further research over the next several years, and that they invite research proposals in this area.

The amount of research needed to result in a comprehensive explication of the values of hunting and trapping is so large that it might appear to be overwhelming. While the authors do not minimize the magnitude of the needed research, we believe largely that sociocultural research simply has been neglected, and that the time has come for it to attain a much higher priority than some other areas that have received more research emphasis previously and where the knowledge base is not so lacking.

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Preliminary Insights about the Sociocultural Importance of Hunting and Trapping

Chapter 1. Introduction

Although hunting and trapping enjoy widespread popularity, a substantial evidence indicates that these activities are gradually losing ground in North America both as recreation activities and as significant parts of the fabric of American life. Although trends from U.S. Fish and Wildlife Service (FWS) national surveys are not definitive because of changes in methodology between surveys, the FWS estimated that in 1991 only 7.4% of Americans 16 years of age and older hunted. This compares to 9.2% in 1985 and 10.3% in 1980. FWS trend data on hunters aged 6 through 15, which may be less accurate, show a slight decline, from 5.1% in 1985 to 4.9% in 1990; their 1991 estimate of 1.4 million suggests a continued drop from 1990 (1.73 million). This decrease in participation occurred even though some states lowered the legal hunting age among this age group during this period (U.S. Fish and Wildlife Service 1993, 1988, 1982).

Canadian hunting participation data are remarkably similar to the U.S. In 1991, 1.5 million, or 7.4% of the Canadian population over 15 years of age participated in hunting. The 1.5 million hunters in 1991 compares to 1.7 million in 1987 and 1.8 million in 1981 (Canadian Wildlife Service 1993).

Reasons for the decline in hunting participation are generally known, although limited comprehensive national research has been conducted (see Duda [1993] for a literature review on this topic). Several studies at Cornell University have established a strong linkage between increasing urbanization of the population and declines in hunting (Brown and Connelly 1994, Decker et al. 1993, Decker et al. 1992, Brown et al. 1987). Factors related to adopting an urban or suburban lifestyle in which one is physically and psychologically removed from the land, in combination with social factors such as increased single parent families in which that single parent is typically a nonhunting female, and increasing minority populations who are less likely to hunt, have been found to be more influential in the decrease of hunting participation than resource-related factors such as loss of habitat to development and increased amounts of posted land. It is likely that these same sociodemographic factors, in conjunction with a decrease in pelt prices, have been instrumental in decreases in trapping participation.

As hunting and trapping participation have declined, Americans and Canadians who do not participate have become further removed from the meaning and importance of these activities to

participants, and the political strength of the animal rights movement has grown. In recent years, many wildlife management administrators and policy makers, while attempting to serve all of their constituencies, have sought better information about the values of hunting and trapping. Such information has been used as input to balance arguments by some constituencies that hunting and trapping should be more restricted or abandoned.

When natural resource conflicts occur, economic values are often the first values to be examined. This is because administrators and political leaders are most familiar with economic values, and because competing economic values are easiest to quantify and compare against each other. The FWS has traditionally collected data on hunting-related expenditures, and in recent surveys has also obtained net value estimates of particular types of hunting. Prior to the initiation of this project, FWS Division of Federal Aid gave a grant to Southwick Associates to conduct an economic analysis of the impacts of hunting participation and an economic profile of the U.S. fur industry. The results of those studies clearly indicate the tremendous economic impact of hunting and of the retail fur industry; both are still billion dollar industries, even though retail fur sales dropped by 33% from 1987 to 1990 (Southwick Associates 1993).

In the latter 1980's Human Dimensions Research Unit (HDRU) staff at Cornell University began to realize more fully that economic values, while tremendously important, do not capture the total value spectrum conceptually, nor do the large economic figures associated with hunting and trapping adequately convey to the public the importance of these activities. Hunting and trapping hold tremendously important personal and group values for those who participate. However, if the nonparticipating public does not recognize these values, the fact that hunting and trapping are associated with large economic values will not result in public recognition of their importance.

Combinations of popular writing, our own experience, and past research led us to realize that a second dimension of the importance of hunting and trapping, beyond its economic importance, is its sociocultural meaning. By "sociocultural," we mean the importance of hunting and trapping in giving individuals a sense of belonging and identity within family, peer group, and community structures, and the role of these activities in fostering group interactions and cohesiveness. In particular, many persons associated with hunting and trapping hold personal beliefs that these activities are both integral parts of culture that maintain the stability of rural community identity over time, and a mechanism of personal growth and ethical development for members of such communities. Many hunters and trappers, including middle class people of some means as well as others who depend in part on the activities for subsistence, do not view hunting or trapping merely

as recreation activities, but rather as element of their way of life - as an integral part of their culture.

Studying and describing the meaning and importance of various activities or elements to a culture is primarily the work of the cultural anthropologist. Historically, these anthropologists concentrated their work on primitive native peoples. More recently, some anthropologists have shifted their focus to aspects of modern urban culture. Relatively few have examined elements of modern or recent American rural culture where they would have encountered hunting. It thus became a consensus of HDRU faculty that sociocultural aspects of hunting represented an important new research frontier, and some of our graduate students became interested in this area and incorporated Cornell University anthropologists on their graduate committees.

It was from this perspective that this project began. The New York State Department of Environmental Conservation initially funded some work with Cornell's HDRU to explore the meaning of hunting to others beyond the participants - including the families and friends of hunters, and others who come in contact with hunters. In conversations with members of the International Association of Fish and Wildlife Agencies (IAFWA), we learned that some members also were interested in exploring the sociocultural importance of hunting and trapping. We utilized the thinking and advice of members of IAFWA's Animal Welfare Committee to develop this initial exploratory project. We hope that eventually human dimensions researchers will comprehensively document the sociocultural importance of hunting and trapping. This information, in conjunction with the economic data already available, should be sufficient to adequately document the overall importance, meaning, and value of these pursuits to policy makers and to the American people. We hasten to add, however, that hunting and trapping have not had the decades of sociocultural study to complement the economic studies that have occurred. Thus, we should not expect our level of sociocultural understanding of these activities to match our economic understanding any time in the near future.

Study Objectives

The objectives of this Phase I study were as follows:

- ① Develop and conduct a survey of wildlife agencies in each U.S. state and Canadian province to determine the specific types of harvest recreation activities believed to be of greatest sociocultural significance and the perceived risk of loss of those sociocultural benefits due to combinations of societal shifts away from hunting and trapping and legal threats from the animal rights/animal welfare movements.

- ② Update a Cornell University annotated bibliography on the sociocultural aspects of hunting and trapping and review that bibliography in conjunction with results from the above survey as input to developing a second year proposal for specific investigations of the sociocultural benefits of hunting and trapping.
- ③ In association with representatives of the international Human Dimensions in Wildlife Study Group, review the results of Objectives 1 and 2 above and develop a research proposal to more specifically define and measure the sociocultural benefits of specific forms of hunting and trapping that are most significant across the U.S., and if possible, in Canada.
- ④ Prepare a final report incorporating the above.

Chapter 2. Literature Synthesis

North American society has undergone substantial social and cultural change over the past two centuries that is clearly reflected in the many hunting traditions and hunting-related issues and conflicts we see today. One ironic consequence of this evolution is that so relatively few people hunt and are interested in hunting today that sociologists and anthropologists have seldom studied hunting from a sociocultural perspective. Thus, the literature is limited in this regard. Over the past two decades human dimensions researchers, who most typically are trained jointly in the biological and social sciences, have generated a very creditable literature base on applied topics related to hunting and wildlife management. They also have adapted behavioral theories to build an understanding of hunting involvement and commitment. Literature on the broader cultural linkages of our ever-changing and urbanizing society to hunting is relatively sparse, however.

This literature review is intentionally limited to broad sociocultural linkages to hunting (we found no trapping studies of this type). Relatively few of the classic human dimensions citations are included because we are focusing on the broader cultural values of hunting to our society and trends in both how these values have evolved and how they have been challenged by groups having different value sets within our pluralistic society. To facilitate cross-referencing, the literature synthesis and the annotated bibliography have parallel organization.

Justification for Studying the Hunting Culture

The citations in this section provide a glimpse of why hunting has not received more attention. Although a subfield called sociology of sports has developed (Hummel 1983), its focus has been on mass or spectator sports. Hunting has been viewed by most social scientists as an important area in the earlier evolution of our society but either has not been classified as a "sport" or has not been recognized as particularly important to modern culture. Articles by King (1991) and MacDonald (1987) provide limited justifications for studying hunting, although that is not their primary purpose. The few anthropologists who have studied hunting cultures (e.g., Nelson 1989, Marks 1991) have provided descriptive or philosophical interpretations rather than justifications for better understanding the sociocultural values of hunting and trapping and how those values are produced and maintained.

Thus, the justification for studying the hunting culture has not been strongly made by those whose expertise is in cultural studies, and largely as a result, it is difficult to document the

importance of hunting and trapping using existing sociocultural studies. The justification for placing more emphasis on studying the hunting culture as it relates to modern societies and modern wildlife management, if it is to be successful, likely will need to be made by a consortium of human dimensions researchers, wildlife managers and administrators, hunting organizations, and the hunting industry. As reflected in the introduction, we hypothesize that this is true not because the case for understanding hunting from a sociocultural perspective is weak conceptually or has limited potential, but because the cultural science disciplines have traditionally gone in other directions, and because few social scientists seem to have a personal interest in hunting or trapping.

Historical Perspective on the Hunting Culture

Historical references offer perspectives ranging from medieval Europe (Franck and Brownstone 1987, Twiti 1327) through the settlement period of North America and into the present era. At least three major themes are identified. First, hunting traditionally was an integral part of the culture and was instrumental in facilitating the development and transmission of mores and values (Bonner 1967). Within this view, the "hunting hypothesis" - that hunting has been a dominant part of human evolution and therefore is an inherent human trait - is discussed (Schwenk 1991, Washburn and Lancaster 1968).

Second, historical accounts and textbooks offer glimpses into the evolution of a natural resources conservation ethic and protection policies. Here the focus is on public land protection. These sources largely ignore the prominent role of hunters in changing cultural values that put an end to large-scale, wasteful market hunting, and in developing a sportsman's code of ethics (Dunlop 1988, Boradiansky 1990).

Third, whether in medieval Europe, the American South after the Civil War, or North American society today, the motivations for hunting and the transmission of hunting-related values are strongly tied to social class (Franck and Brownstone 1987, Hahn 1982, MacKenzie 1988). Differences in motivations among social classes occur even within the same specific geographic area.

This historical overview helps document the diverse and integral role hunting has played in many cultures. Not only has hunting been an important component of many cultures, hunting in fact has played a role in the more recent evolution of cultures, such as in the development of conservation ethics. This is true for American culture, and we have no doubt that further research would show that hunting continues to play an important role in contemporary American culture. Further research also would shed light on the mechanisms through which hunting and trapping

activities play such a role, and how wildlife management agencies and non-governmental organizations influence these mechanisms.

Subsistence Hunting Culture

Studies of native Alaskan peoples (e.g., Barker 1993, Huntington 1992) illustrate both the integral role of hunting in these subsistence cultures, and the role of ethnographic studies in ascertaining the cultural importance of hunting. The Huntington illustration of the conflicts or juxtaposition of modern state hunting regulations versus local customs has general application to many rural societies in contemporary America.

Philosophy of Hunting as it Relates to Cultural Processes

These works philosophically examine how hunting is viewed and legitimated by different groups, and when it conflicts with evolving cultures and subcultures. Cartmill (1993) provides a historical examination from ancient Greece and Rome to the present. Other works are contemporary across various regions of the U.S. and across hunting groups such as subsistence hunters, trophy hunters, sport hunters, and anti-hunters. These works lend credence to the idea that "the hunting culture" is really a wide range of many specific subcultures. However, none of the works provides information about the differences in sociocultural values that may exist in these different hunting subcultures.

It is likely that hunting subcultures are produced and maintained in different ways, and that they relate differently to wildlife management agencies. Many agencies have programs and policies which are intended to provide hunting opportunities, help hunters develop better skills, and police the ranks of hunters. However, there has been little if any research which addresses the types of hunters that are produced--or which are prevented from being produced--by these different programs. Preliminary research by HDRU suggests that some subgroups of hunters look to agencies for their cultural identity as hunters while others may have either a benign or negative relationship with the agency in terms of their cultural identity as hunters. By better understanding the sociocultural values of hunting and trapping for these different subgroups, agencies could better tailor their efforts to facilitate the attainment of those values by hunters and to articulate those values to the nonhunting public so that they may be more broadly and correctly understood.

Modern Hunting Culture

This section summarizes a range of contemporary human dimensions research studies, ethnographic studies, and popular articles dealing with modern hunting culture. Studies cited examine motivations for hunting, involvement of hunters in other wildlife recreation and conservation activities, initiation into hunting and male bonding, and whether other activities are substitutable for hunting. Some of this work (Purdy et al. 1989) led to exploratory studies of the cultural mechanisms through which hunting apprenticeship and social support are provided and has helped provide insight into how mentoring programs can help provide these missing links for young people who have some interest in hunting but who have no one to hunt with (see the next section). Other studies have examined hunting in terms of satisfaction or individual motives and while useful in that context, have generally not provided a very rich cultural understanding of the importance of hunting.

One of the few writers to specifically try to outline some of the cultural values associated with hunting and trapping activities was Leopold (1949). In one of the last chapters of *A Sand County Almanac*, Leopold describes three types of cultural values associated with outdoor activities centered on hunting and trapping. However, he provides no insight about the role these values play in society, nor how they are produced or maintained.

Perhaps some of the richest (but most difficult to interpret or use) data on the hunting culture is presented in popular books and articles. For example, the Elman and Seybold (1985) anthology includes 20 chapters written by different authors. Each chapter describes cultural processes and mechanisms as they relate hunting to people, the land, and life. Although these and many other writings suggest that hunting and trapping are integrated into the life and life-style of many persons, these popular descriptions are difficult to use as a foundation for showcasing the sociocultural values of hunting because they are organized as stories about life and are not organized in a way that is conducive to research-driven decision making. In addition, it is difficult for persons who do not hunt and trap to relate to the implied cultural values that are described in these books and articles because they do not share the same cultural meanings or processes.

One of the few studies which has examined the sociocultural values of hunting using a rigorous research design was conducted by Baas (1989). He examined the relationships between hunting participation, family relations, and adolescent self-concept. Although his study was very limited in scope, Baas (1989:78-79) found "...hunting may be an activity which maintains continuity, communication, and support among family members who hunt together. It does not suggest that families who hunt together have better relationships than those who do not."

Stedman et al. (1993) and Stedman and Decker (1993) helped to document that some sociocultural values associated with hunting were shared by hunters and nonhunters alike. They found that many persons who neither purchase a license nor pursue game afield still benefit socioculturally from hunting through their association with hunters. However, their study did not address the more difficult questions of how those values are produced, and what role wildlife management agencies may play in facilitating or inhibiting the production and maintenance of those values.

Hunting Initiation as a Cultural Process

Substantive research on hunting initiation has occurred over the past decade at Cornell University. The Cornell studies were among the first to examine hunting not just as a form of recreation but as an embodiment of culture that is passed on from generation to generation. Major changes in the stability of the family, coupled with urbanization and competition from other activities, seem to be threatening the continuation of the hunting culture as it traditionally operated. Better documentation and understanding is needed of the mechanisms through which the teaching of young, new hunters by older, more experienced hunters leads to the transmission of cultural values from one generation to the next. When family structures change and families become less integrated with the natural world because of urbanization and competition for other activities, does it become difficult for those cultural values to be maintained? To what degree is the teaching of inexperienced hunters by experienced hunters an important feedback mechanism in the cultural process? When fathers can no longer teach their sons to hunt because they do not have access to their children for some reason, does it become difficult for the sociocultural values of hunting to be maintained even among the older, experienced hunters? Does this loss of the sociocultural values of hunting by current participants lead to an increased dropout rate from hunting?

Analogies to the Hunting Culture

Works included in this section cover a variety of topics whose cultural aspects interface with hunting in some way. Natural resources use by subsistence cultures, rural American "cultural landscapes," public lands policy, broader cultural aspects of gun ownership, and cultural aspects of other activities which may involve similar processes of identity production and maintenance are covered. These works highlight the fact that although hunting itself can be segmented as a topic for study, hunting interfaces with and in reality is inseparable from many other aspects of culture.

Illegal Hunting Behavior

The presence of fundamentally different human-environmental "world views" combine with different world views about the role of government and lead to value conflicts over the appropriateness of the various forms of hunting today. One of these splits in world view involves the "scientific" management of wildlife by a central government agency versus indigenous management. These splits occur not only among native American groups, but also among a variety of (especially) rural cultures. World views that oppose regulations associated with scientific management of wildlife by government are by no means the only reason for illegal hunting behavior. However, it is within these cultures that illegal behavior is often most pervasive, institutionalized, and very difficult to overcome. Two studies covered in this section deal with illegal hunting of white-tailed deer.

Hunting and Trapping in the Arts

Hunting and trapping have been widely portrayed in the arts. Poetry, painting, and song have all dealt with these outdoor activities. Native American societies honored hunters and game through song as an important part of maintaining their way of life (e.g., Evers and Molina 1987). Numerous poets have expressed their feelings about hunting and trapping activities (e.g., McLellan 1886), and important European and American artists also portrayed hunting scenes in their work (e.g., Cooper 1986). What are the sociocultural values associated with having hunting and trapping portrayed in the arts? What are the similarities and differences in the reasons native Americans honored hunters and game through art compared with modern hunters?

Annotated Citations on Sociocultural Aspects of Hunting

I. Justification for Studying the Hunting Culture

Hummel, R. L. 1983. *Hunting and fishing--but not in sociology*. *Rural Sociologist*. 3(4):255-258.

SUMMARY: The author states, "Anthropology has long contended that hunting was a crucial source of protein and an important stimulus activity in the early social, and perhaps, biological evolution of humankind." This is the basis for the "hunting hypothesis" which contends that because hunting has played and continues to play an important role in human evolution, hunting must be an inherent human trait. Suggests that although hunting may be so important evolutionarily, it has tended to escape the attention of sociologists because hunting is not included in their definition of "sports." Provides limited justification for studying the hunting culture.

King, R. J. 1991. *Environmental ethics and the case for hunting*. *Environ. Ethics*. 13:59-85.

SUMMARY: Explores the relationship between man and nature from a mid 19th century perspective. That is, nature exists to be dominated by man. Explores the act of hunting, and the context within which it occurs. Unintentionally provides some justification for maintaining the hunting culture. The author examines hunting from four perspectives: (1) animal rights, (2) the land ethic, (3) sport hunting, and (4) ecofeminism. Suggests that humans are outside of nature, and have a need to get re-acquainted with it. The author's cultural context is not the hunting culture, but rather the Western, patriarchal culture.

MacDonald, D. 1987. *Hunting--an experience in pluralistic democracy*. *Wildl. Soc. Bull.* 15:463-465.

SUMMARY: Provides a limited justification for studying the hunting culture. The article states, "The traditional personal values of hunting are legitimate." However, it does not examine why these are legitimate. Author suggests that hunters have minority rights in a pluralistic society as long as the majority rights are not injured.

II. Historical Perspective on the Hunting Culture

Bonner, P. H. 1967. *Aged in the woods*. Arno Press. New York, NY. 157pp.

SUMMARY: Discusses hunting in the 1930's through 1950's. Provides examples of behaviors, rituals, and other manifestations of the traditional rural hunting culture of that era. Especially rich in the social aspects of the culture, including development and transmission of mores and values.

Boradiansky, T. S. 1990. **Conflicting values: the religious killing of federally protected wildlife.** *Nat. Resour. J.* 30:709-754.

SUMMARY: Sport hunting at one time meant shooting buffalo from a moving train for no apparent reason. Also in the past, people hunted on land they owned with few restrictions. Today the meaning of sport hunting is quite different, and landowners must follow state and federal regulations when hunting on their own property. Through what processes did these changes in the hunting culture come about? Death and/or sacrifice have always been present in religious rituals in many cultures, but the ideology is developing that animals also have intrinsic values, in addition to their obvious utility (food, clothing, etc). This is the basis behind the new environmental ethic. What are the cultural processes through which this new world-view is developing? If world-view differences exist between hunters and nonhunters, can there also be differences in world-view among different types of hunters?

Dunlop, T. R. 1988. **Sport hunting and conservation, 1880-1920.** *Environ. Review.* 12:51-60.

SUMMARY: Historians focus on conservationists and preservationists when studying America's cultural change towards increased conservation of natural resources, etc. By ignoring hunters, this author believes that historians are making a serious oversight; hunters have played a very prominent role in the cultural change of American values during the last century. Author discusses the contribution of English ethics, combined with American history of large-scale wasteful hunting, to the development of sportsmanship and a code of ethical/moral conduct. Discusses the idea that hunting is a way to recapture the "frontierness" of the past, and how the significance of hunting declines with each additional generation.

Franck, I. M. and D. M. Brownstone. 1987. **Harvesters.** Facts on File Publications. New York, NY. 139pp.

SUMMARY: This book presents a historical overview of hunting as it was exhibited in medieval Europe. By concentrating on the aspects of hunting pertaining to royalty, it neglects other important aspects of the hunting culture including those pertaining to the houndsmen, game keepers, and other servants. Provides a basis for exploring differences in the hunting culture between feudal Europe and current-time America.

Hahn, S. 1982. **Hunting, fishing, and foraging: common rights and class relations in the Postbellum South.** *Radical Hist. Rev.* 26:37-64.

SUMMARY: Discusses how class relations provide a foundation for influencing cultural mores and behaviors of different groups of hunters just after the Civil War. Groups examined included wealthy, white land barons; poor white landlords; and recently freed blacks. World-views and cultural manifestations differed for all three groups with respect to hunting, even though they shared the same geographic area. Provides a theoretical foundation for examining similar cultural differences among the modern hunting culture.

MacKenzie, J. M. 1988. **The empire of nature: hunting, conservation, and British imperialism.** Manchester Univ. Press. Manchester, England. 340pp.

SUMMARY: Discusses the role and importance of hunting in often supporting precarious imperial enterprises. Also, provides a historical review of changes in the hunting culture since all humans were hunter-gatherers. Discusses the role of hunting in conservation.

Mighetto, L. 1988. **Wildlife protection and the new humanitarianism.** *Environmental Review.* 12:37-49.

SUMMARY: Explores some of the pressures on the modern hunting culture. Humanitarians feel that man is not above animals. They don't mind so much that humans kill for food, but killing for sport is objectionable. Most hunters object to wasteful killing, but sport hunting is acceptable to them. Suggests that increased public awareness of animal suffering contributed to the formation of antihunting sentiments. Suggests that antihunting is becoming "increasingly fashionable." Does not explore the differences between hunters and antihunters from a cultural perspective.

Mitchell, A. H. and R. L. Tilson. 1986. **Restoring the balance: traditional hunting and primate conservation in the Mentawai Islands, Indonesia.** Pages 249-260 in Else, J. G. and P. C. Lee, eds. *Primate ecology and conservation.* Cambridge University Press. Cambridge.

SUMMARY: One example of what can happen when a culture undergoes rapid change due to external stimuli. The Mentawai people are slowly being assimilated into modern society in Indonesia. Their culture, traditions, values, and religions are all being lost or forgotten as the natives are acculturated. Hunting once was a major social activity which carried great importance, but this importance has been forgotten or ignored.

Schwenk, S. 1991. **Jagd als kulturelles phänomen--Hunting as a cultural phenomenon.** *Z. Jagdwiss* 37:258-266.

SUMMARY: Describes the cultural importance of hunting based on the "hunting hypothesis." Believes that hunting originally was the basis for all human culture. The cultural basis for hunting declined during the period of agricultural and urban development. Finally, as persons became re-acquainted with the environment, hunting provided a framework for the development of outdoor ethics.

Twiti, W. 1327. **The art of hunting.** *Cynegetica Anglica* 1. Almquist and Wiksell International. Stockholm, Sweden. 116pp.

SUMMARY: Earliest hunting treatise by an Englishman. Gives insights into some of the earliest definitions, behaviors and attitudes of hunters.

Washburn, S. L. and C. S. Lancaster. 1968. **The evolution of hunting.** Pages 292-303 in Lee, R. B. and I. DeVore, eds. *Man the hunter.* Aldine Publishing Company. Chicago, IL. 415pp.

SUMMARY: Describes the "hunting hypothesis." That is, hunting has dominated human evolution, so hunting is an inherent human trait. Explores the relationship between hunting and the development of the human family. Others say that this is not true, otherwise more people would express the behavior.

III. Subsistence Hunting Culture

Barker, J. H. 1993. **Always getting ready = upterrainerluta: Yup'ik Eskimo subsistence in southwest Alaska.** Univ. of Washington Press. Seattle, WA. 143pp.

SUMMARY: Describes Yup'ik Eskimo hunting, social life, and customs. Example of ethnographic study. Example of how hunting is an integral part of a culture.

Executive Council Office. 1988. **Caribou are our life.** Govt. of the Yukon. Whitehorse, YK.

SUMMARY: Describes the relationship between caribou and native Americans in northern Canada. Describes how hunting is part of the life and lifestyle for these peoples.

Huntington, H. P. 1992. **Wildlife management and subsistence hunting in Alaska.** Univ. of Washington Press. Seattle, WA. 177pp.

SUMMARY: Describes relationship between state-developed hunting regulations and the local subsistence economy. Conservation of natural resources from two different world-views. One based on the notion of a top-down government. The other where there is little notion of government in the Western sense, but rather there is community consensus with respect to what is right and wrong.

IV. Philosophy of Hunting as it Relates to Cultural Processes

Cartmill, M. 1993. **A view to a death in the morning: hunting and nature through history.** Harvard Univ. Press. Cambridge, MA. 331pp.

SUMMARY: Explores relationship between humans and animals from ancient Greece and Rome to modern times. Discusses impact of anthropomorphic characterizations of animals in *Bambi*. Suggests that boundaries between humans and animals are cultural rather than natural, and thus are subject to redefinition when they lose intellectual credibility. Hence, we have a shift in the way the public views hunting--from acceptance to nonacceptance. Does not spend much time discussing the power state management agencies have in translating philosophical and science-based positions into practice and in shaping popular belief systems. Thus, the author stops short of exploring the role that agencies have in producing and reinforcing what we might consider to be hunting subcultures.

Fergus, J. 1992. *A hunter's road: a journey with gun and dog across the American uplands.* Henry Holt and Co. New York, NY. 290pp.

SUMMARY: In a 5-month journey around the country hunting game birds, the author meets and describes several types of hunters including: modern native American hunters, local "shady characters," and conservationist hunters. Describes how some hunters operate within a social hierarchy of apprentices and experts through which beginners must "put in their time" to learn the ropes and develop the skills and knowledge to become a hunter. Describes how others associate with groups of peers who all have the same skill and knowledge level, and who learn not from others but from the rigors of trial and error. Also, describes how some hunters look askance at others because the former have "done something for conservation" whereas the latter just reap the benefits of the former. The rich text provides examples of how hunting "as a way of life" can differ if a person is a member of a conservation organization, a local meat hunter, or a native American hunter.

Kerasote, T. 1993. *Bloodties: nature, culture, and the hunt.* Random House. New York, NY. 277pp.

SUMMARY: Explores hunting from the perspective of subsistence hunters, trophy hunters, antihunters, and sport hunters. Philosophically discusses differences and similarities between hunting and vegetarianism. Points out that both the meaning and process of hunting are very different for different groups of hunters. This analysis suggests that the "hunting culture" is really a range of cultures.

Lamar, M, and R. Donnell. 1987. *Hunting: the southern tradition.* Taylor Publ. Co. Dallas, TX. 198pp.

SUMMARY: Southern hunting is steeped in ritual and tradition. Describes how hunting in the South is a collective whole including the ritualized behaviors associated with the hunt, intimate knowledge and linkage to the land, knowledge of and skill in the use of equipment, knowledge and almost religious linkage to game, and of course the hunters themselves. Suggests that southern hunting is very different from hunting in other parts of the country in terms of its historical legacy, how it is manifested, and the social interactions that occur. Provides suggestion that different types of hunting cultures exist.

Mitchell, J. G. 1979. *The hunt.* Penguin Books. New York, NY. 243pp.

SUMMARY: Explores reasons why people hunt. Gives examples from Michigan, Texas, Alaska, Montana, and Ohio. The examples seem to point out that the hunting culture can be different for trophy hunters in Alaska vs. trophy hunters in Montana vs. deer hunters in Michigan, and perhaps different for bear vs. deer hunters in Michigan. Also discusses antihunting issues.

Nelson, R. 1989. *The island within.* Vintage Books. New York, NY. 284pp.

SUMMARY: Explores reasons for hunting. Suggests that hunting is a metaphor in many ways. While deer hunting, a person metaphorically transforms into the quarry as the quarry is physically transformed into the hunter. Discusses cultural processes of becoming a hunter. Examines the importance of connecting to the natural world for native American hunters.

V. Modern Hunting Culture

Baas, J. M. 1989. *An examination of relationships between hunting participation, family relations, and adolescent self-concept.* Ph.D. thesis. Oregon State Univ., Corvallis, OR. 145pp.

SUMMARY: Adolescent hunters and nonhunters were compared as to self-concept evaluations. Hunters may feel less comfortable than nonhunters when interacting in social situations. However, adults and adolescents who hunt together seem to share positive attitudes about the positive effect of hunting on family relations. Participation in hunting was also found to be positively correlated with enhanced self-concept in adolescents. This study provides some limited, but relatively conclusive evidence of sociocultural benefits that hunting provides to adolescent participants.

Brown, T. L., N. A. Connelly, and D. J. Decker. 1984. *An analysis of the overlap in participation of consumptive and nonconsumptive wildlife users.* Outdoor Recreation Res. Unit Publ. 84-5. Dep. Nat. Resour., N.Y.S. Coll. of Agric. and Life Sci., Cornell Univ. Ithaca, NY. 49pp.

SUMMARY: Provides additional evidence that hunters are not restricted to "game and guns." Rather, many hunters are integrally involved in what have been traditionally termed nonconsumptive activities. Does not address whether hunters differ culturally from nonconsumptive wildlife users such as birders and ecotourists.

Dahlgren, R. B. and T. A. Bubolz. 1985. **Members of conservation-related organizations: their characteristics, readership, and activism relative to sport hunting.** Iowa St. J. of Res. 60(1):89-106.

SUMMARY: Discusses the relationships between membership in private conservation organizations, readership of these groups' publications, and the members' propensity to be politically active with respect to their organizational platform. It provides some evidence that different types of hunters have philosophical and behavioral differences that may be related to cultural differences.

Decker, D. J. and N. A. Connelly. 1989. **Motivations for hunting: implications for antlerless deer harvest as a management tool.** Wildl. Soc. Bull. 17:455-463.

SUMMARY: One of the important behaviors associated with hunting by those who engage in it is participating in wildlife management. However, this research points out that hunters mostly hunt for personal reasons, rather than to help agencies manage wildlife populations. This analysis provides reason to examine the types of things hunters use to separate themselves from nonhunters (e.g., "look at all that we hunters have done for wildlife management, what have you done?"). Is it a true difference based on cultural attributes, or is it only discursive pointing?

Elman, R. and D. Seybold, eds. 1985. **Seasons of the hunter.** Alfred A. Knopf. New York, NY. 233pp.

SUMMARY: Presents 20 chapters dealing with the way hunting relates to people, the land, and life. Addresses reasons why persons hunt, and relates those reasons to the maintenance of personal and community identity. Through popularized stories, expresses how hunting is a natural part of the rural lifestyles and livelihoods, and how hunting is more separated from urban lives. Is data rich, but difficult to interpret from the perspective of helping persons who are not associated with hunting understand the sociocultural values of hunting.

Kennedy, J. J. 1973. **Some effects of urbanization on big and small game management.** Trans. N. Am. Wildl. and Nat. Resour. Conf. 38:274-280.

SUMMARY: Rural residents are more likely to be exposed to hunting at an earlier age than urban adolescents. Suggests that this leads to differences in the knowledge level and behavior of the two groups. The urban and rural difference is discussed in relation to satisfactions, rather than culture.

However, the article tries to define the "traditional hunter" which many have come to think of as being the manifestation of the history of hunting.

Leopold, A. 1949. **Wildlife in American culture.** Pages 177-187 in A Sand County almanac. Oxford Univ. Press, Oxford, UK. 226pp.

SUMMARY: Proclaims that three kinds of cultural values exist in Americans' "wild roitage." First, there is the "split-rail value" associated with experiences which remind persons of their distinctive national history. Second, there are cultural values associated with experiences which express persons' reliance the "soil-plant-animal-man food chain." Finally, there are cultural values associated with activities and experiences which allow persons to demonstrate "those ethical restraints collectively called 'sportsmanship.'" Gives no indication of how these values are produced or maintained.

Marks, S. A. 1991. **Southern hunting in black and white: nature, history, and ritual in a Carolina community.** Princeton Univ. Press. Princeton, NJ. 327pp.

SUMMARY: Explores complex patterns of male bonding, social status, and relationships with nature. Gives a historical overview of hunting in the South. Describes cultural manifestations of hunting including metaphors about meaning, power, and display. Shows how world-views about human's relationships with nature and animals have changed over time. Suggests that hunters in different socioeconomic groups have very different world-views with respect to hunting. Provides solid evidence that there are several hunting cultures, rather than only one.

Miller, J. M. 1992. **Deer camp.** MA Inst. of Tech., Cambridge, MA, and VT Folklife Center, Middlebury, VT. 127pp.

SUMMARY: Documents some of the rituals and traditions of hunting in northeast Vermont. Especially addresses some of the conflicts between long-term residents and participants, and persons who bring different attitudes and values to the area. Relates the culture of hunting to rural life in northern New England, but does so anecdotally. Contains many oral histories which add richness to the data.

Outdoor Recreation Resources Review Commission. 1961. **Hunting in the United States--its present and future role.** ORRRC study report No. 6. Washington, D.C. 117pp.

SUMMARY: Managers can be cultural change agents, especially with respect to hunting. Suggests some justification for studying the hunting culture. Also, suggests that one of the biggest impacts on the hunting culture is that private individuals have great control over where the behavior can be exercised.

Purdy, K. G., D. J. Decker, and T. L. Brown. 1989. **New York's new hunters: influences on hunting involvement from beginning to end.** Human Dimensions Res. Unit Ser. Publ. 89-3. Dep. Nat. Resour., Cornell Univ., Ithaca, NY. 25pp.

SUMMARY: Explores some of the differences between "traditional hunters" and "experimental hunters." Traditional hunters tend to be introduced to hunting at an early age by family members, they are most likely to try to introduce others to hunting, and are most likely to become committed hunters. Experimental hunters tend to be introduced to hunting later in life by friends, they are most likely to drop out of hunting, and least likely to try to introduce others to hunting. Empirically supported previous qualitative research that showed that people who had hunting apprenticeship opportunities and social support for hunting are most likely to become committed hunters. Provides a focus for studying the hunting culture(s)--what are the cultural mechanisms through which hunting apprenticeship and social support are provided.

Shepard, P. 1959. **A theory of the value of hunting.** Trans. N. Am. Wildl. and Nat. Resour. Conf. 24:504-512.

SUMMARY: A very philosophical defense of hunting, relating man's dominant role in nature to the fact that he has primarily been a hunter 95% of his history (i.e., the hunting hypothesis). Suggests that the hunting culture is deteriorating, but provides relatively little evidence.

Stedman, R. C., D. J. Decker, and W. F. Siemer. 1993. **Exploring the social world of hunting: expanding the concepts of hunters and hunting.** Human Dimensions Research Unit Publ. 93-7. Dep. Nat. Resour., N.Y.S. Coll. of Agric. and Life Sci., Cornell Univ. Ithaca, NY. 111pp.

SUMMARY: Explores the hypothesis that nonhunters are members in a broader social world of hunting, and that they receive benefits from their association with hunters and hunting. Defines group membership based on social interactions, participation in auxiliary activities, and shared beliefs. Provides clear documentation that a broadly defined social world of hunting exists.

Stedman, R. C. and D. J. Decker. 1993. **What hunting means to nonhunters: comparing hunting-related experiences, beliefs, and benefits reported by hunters and nonhunters.** Human Dimensions Research Unit Publ. 93-7. Dep. Nat. Resour., N.Y.S. Coll. of Agric. and Life Sci., Cornell Univ. Ithaca, NY. 41pp.

SUMMARY: Compares experiences, beliefs, and benefits of persons who have never hunted with continuous and sporadic hunters. Provided support for the notion that nonhunters can play important roles in the production and maintenance of sociocultural values associated with hunting.

Thomas, J. W., J. C. Pack, W. N. Healy, J. D. Gill, and H. R. Sanderson. 1973. **Territoriality among hunters--the policy implications.** Trans. N. Am. Wildl. and Nat. Resour. Conf. 38:274-280.

SUMMARY: Hunters who repeatedly hunt the same area form home ranges, and sometimes their defense of their home range leads to territoriality against transient hunters. This article discusses how "resident" and "transient" hunter types differ. Stops short of proposing that differences between resident local hunters and resident transient hunters may be cultural.

Tillett, P. 1963. **Doe day: the antlerless deer controversy in New Jersey.** Rutgers Univ. Press. New Brunswick, NJ. 126pp.

SUMMARY: "Bambiism" is the "misguided sentiment against killing the lovely deer." Hunters in New Jersey wanted more opportunities to shoot deer, but were adamantly opposed to killing does. On the other hand, farmers and other landowners wanted hunters to shoot more deer, but threatened to close their land to hunters. These actions, which seemed to be completely

contradictory to the goals of the two groups, are examined in this book. Outlines some manifestations of the hunting culture through this analysis. Indirectly explores some aspects of the paradigm or world-view under which some hunters operate.

Vaske, J. J., M. P. Donnelly, and D. L. Tweed. 1983. **Recreationist-defined versus researcher-defined similarity judgments in substitutability research.** *J. Leisure Research* 15(3):251-263.

SUMMARY: Discusses a study which asked turkey hunters to "substitute" other activities based on similarities of the activities with turkey hunting. Some evidence may exist that lack of substitutability is linked to cultural identity. This linkage has not been explored in any detail.

Wright, B. A., and D. R. Fesenmaier. 1990. **A factor analytic study of attitudinal structure and its impact on rural landowner's policies.** *Environ. Manage.* 14(2):269-277.

SUMMARY: Discusses antihunting sentiments (i.e., protectionist views) which the authors say are founded in the debate over appropriate types of land use as argued by urban vs. rural hunters. Discusses how attitudes are formed in response to urban hunters invading rural landowners' property. Stops short of suggesting that different cultural paradigms may be at the root of the debate.

VI. Hunting Initiation as a Cultural Process

Decker, D. J. and G. F. Mattfeld. 1988. **Hunters and hunting in New York.** *Human Dimensions Res. Unit Publ. No. 88-7.* Coll. of Agric. and Life Sci., Cornell Univ., Ithaca, NY. 28pp.

SUMMARY: Explores why New Yorkers hunt, how they get started in hunting, how commitment to hunting develops, and why people quit hunting. "The perception of hunting simply as the pursuit of game animals for meat and trophy is both narrow and inaccurate. Being a 'hunter' is an embodiment of values, beliefs, attitudes and behaviors that often have been passed on from generation to generation and comprise a significant focus of personal, family, and sometimes community life. It is an element of the culture of some social systems, particularly traditional rural families.

Decker, D. J., K. G. Purdy, and T. L. Brown. 1986. **Early hunting experiences: insights into the role of hunting "apprenticeship" from the perspectives of youths and adults.** *N.Y. Fish and Game J.* 33(1):51-54.

SUMMARY: Insights based on a mostly qualitative study of the ways in which people develop into hunters. Suggests some of the cultural processes important within hunting families and communities.

Decker, D. J., R. W. Provencher, and T. L. Brown. 1984. **Antecedents to hunting participation: an exploratory study of the social-psychological determinants of initiation, continuation, and desertion in hunting.** *Outdoor Recreation Research Unit Publ. 84-6.* Dep. Nat. Resour., N.Y.S. Coll. Agric. and Life Sci., Cornell Univ., Ithaca, NY. 175pp.

SUMMARY: Qualitative study that provided some of the first evidence that cultural processes within families and local communities are important in the transmission of values relating to hunting and the development of committed hunters.

VII. Analogies to the Hunting Culture

Atkinson, K. J. 1987. **The Alaska National Interest Lands Conservation Act: Striking the balance in favor of "customary and traditional" subsistence use by Alaska natives.** *Natural Resources J.* 27:421-440.

SUMMARY: This article discusses the role ANILCA has played in the life of subsistence Alaskan natives. Article defines subsistence activities as being more than just hunting and fishing, but as a "way of life" because natives depend on Alaska's renewable resources to survive. Article explains how uniform regulatory policies concerning a typical Alaskan hunter should and cannot apply to subsistence hunters who may have to supply their entire extended family with food, etc. Relates this to the traditional family group. Not a cultural analysis.

Ellison, G. C. 1991. **Southern culture and firearms ownership.** *Soc. Sci. Quarterly* 72:267-281.

SUMMARY: Examines four potential cultural explanations for the relative levels of gun ownership among white Southerners: subcultures of racism, conservatism, violence, and sporting gun. An important contribution of this paper is a conceptual framework for examining multiple cultures that are distinct both geographically and by race.

Fitchen, J. M. 1991. *Endangered spaces, enduring places: change, identity, and survival in rural America*. Westview Press. Boulder, CO. 314pp.

SUMMARY: Social movements may be national in scope, but the impacts are felt locally. Describes a local-level approach to understanding specific changes in actual rural places. Gives insights into methodology to use to study national-level changes occurring in local places. Would provide a good fit for studying social changes affecting hunting. Also, provides justification for maintaining "alternative" cultures. Also, gives insights into the hunting culture. Explores the relationships between deer hunting and rural landscapes.

Geisler, C. 1992. *Cultural focus in public land policy*. N. Amer. Symp. on Soc. and Resour. Manage. 4:80.

SUMMARY: Public land management decisions typically deal with the physical landscape, but rarely deal with the cultural landscape. Suggests that groups with different cultural perspectives or world-views react differently to proposed land use decisions or actions. Provides a framework for examining how these different cultures operate within the same geographic area.

Glass, R. J. and R. M. Muth. 1989. *The changing role of subsistence in rural Alaska*. Trans. N. Am. Wildl. and Nat. Resour. Conf. 54:224-232.

SUMMARY: Discusses subsistence activities in relation to changing technology, tools, market-economy structure, production methods, etc. Participation in subsistence activities are the primary component of Native Alaskans' heritage, reinforcing a variety of cultural and subcultural values and institutions. Subsistence activities provide the "social and economic integration of entire communities." Shows how cultures continuously are in a state of flux because of "external" stimuli.

Lawrence, E. A. 1982. *Rodeo*. Univ. of Chicago Press. Chicago, IL. 288pp.

SUMMARY: "Rodeo is a way of life." "The sport of rodeo permeates the very fabric of life in the West." Describes rodeo as a very stylized manifestation of ranching in the West. Describes the relationship between humans and animals as portrayed through rodeo. This book has direct analogies to the hunting culture in that both hunting and rodeo can be thought of as stylized rituals of historically important activities (i.e., ranching and food attainment) that have changed substantially over time.

VIII. Illegal Hunting Behavior

Decker, D. J., T. L. Brown, and W. Sarbello. 1981. *Attitudes of residents in the peripheral Adirondacks toward illegally killing deer*. N.Y. Fish and Game J. 28(1):73-80.

SUMMARY: Illegal killing of deer is socially acceptable among some groups, and is more acceptable if done by close relatives or friends, or if done accidentally or for food. Area residents seem to do little to abate illegal activity. Suggests a need for a cultural understanding of why some behaviors are acceptable by some individuals, but not by others. Was not a cultural study.

Glover, R. L. 1982. *Characteristics of deer poachers and poaching in Missouri*. M.S. Thesis. Univ. of Missouri. Columbia, MO. 161pp.

SUMMARY: Objectives for the study included determining the degree that poaching is aided by public cooperation, and characterizing poachers and poaching violations. Was not a cultural study, but presents several hypotheses that could be addressed from a cultural perspective.

IX. Hunting and Trapping in the Arts

Cooper, H. A. 1986. *Winslow Homer watercolors*. Yale Univ. Press. New Haven, CT. 259pp.

SUMMARY: Collection of Winslow Homer watercolors showing some of the intimate relationships between hunters and game.

Evers, L. and F. S. Molina. 1987. *Yaqui deer songs*. Univ. of Arizona Press. Tucson, AZ. 239pp.

SUMMARY: Collection of Yaqui songs, including many dealing with hunting. Many express the integrated relationship between the game, the land, and the people.

McLellan, I. 1886. *Poems of the rod and gun*. Henry Thorpe. New York, NY. 271pp.

SUMMARY: Numerous poems about hunting. Describes and expresses many of the emotions associated with hunting.

Chapter 3: Wildlife Agency Identification of Hunting and Trapping Traditions

A primary focus of this Phase I research was to identify the important hunting and trapping traditions across North America that have particular sociocultural importance. By "traditions," we mean those activities which can be characterized generally in terms of groups of people who engage in them, the species or species group pursued, and/or the type of firearm or trap used, if specific methods are used. By "socioculturally important," we mean that the traditions have become significantly interwoven into the culture of those who participate. That is, the hunting or trapping tradition is not engaged in simply as a form of recreation. Rather, the tradition involves families or other groups, including individuals who do not go afield; it includes customs or celebrations in addition to going afield; and there are other manifestations of the tradition in the participants' daily lives. As a result of this concern for identifying forms of hunting or trapping that were important *socioculturally*, we used the term "tradition" rather than "activity" to denote them.

We realized that many wildlife agency directors and their staffs might justifiably feel uncomfortable trying to identify "socioculturally important hunting and trapping traditions" in their state or province. After all, no such inventory has ever been assembled, and wildlife agency staff are, with few exceptions, biologists, not cultural anthropologists. Nevertheless, we believed that wildlife agency staff represented the best available source of an identification and broad, qualitative description of these traditions. Thus we proposed, planned, and carried out a survey of wildlife agency directors to gather this information.

A draft mail questionnaire was developed and sent to the project research and agency/organizational advisory committees for review (individuals on these committees are acknowledged at the beginning of this report). The instrument was revised and then reviewed again by the two committees. Following a favorable review of the second draft, minor changes were made and the survey was sent to all state and provincial wildlife agencies in late December 1993. One follow-up mailing with an additional copy of the questionnaire was sent to agencies who had not responded. Interim progress reports made at IAFWA meetings also encouraged agencies who had not responded thus far to do so.

Questionnaires returned by 22 February 1994 (approximately 72%) were summarized for the Research Advisory Committee meeting, held in St. Louis, MO. 25-26 February. The results of that meeting are reported in Chapter 4. All survey results have been processed and are included in this report.

It must be remembered that this is a highly qualitative first-phase study. State and provincial agency staff often have good data from which to estimate the numbers of participants in various types of hunting and trapping, but they have only their experience from which to judge those traditions that have primary sociocultural importance. As a result, the data are analyzed and reported in a manner that reflects their qualitative nature. Some counts are presented as an indication of an order of magnitude, but they should not be given a more precise interpretation. Traditions that were not reported by particular states or provinces often exist there, but were judged to be less important from a sociocultural perspective than other traditions reported.

Survey Results

Questionnaires were returned by 41 of the 50 states, and from 10 of the 12 Canadian jurisdictions (82.3% response rate). A wide number of big game, small game, upland bird, and waterfowl hunting as well as furbearer trapping traditions were itemized and described by responding agencies. These are summarized in Appendix A by region of the U.S. and Canada and by tradition.

A summary of the different hunting and trapping traditions reported by agencies is shown in Table 3-1. Because traditions were characterized with different degrees of specificity, a precise count of the different traditions cited is impossible. However, while there is some overlap, Table 3-2 lists 80 different hunting and trapping traditions. The traditions cited most frequently by the 51 responding agencies as having particular sociocultural importance were furbearer trapping (32), deer hunting with firearms (31), turkey hunting (22), waterfowl hunting (19), and archery deer hunting (19). However, the vast majority of types of hunting that occur in North America were cited by at least one state or province.

Many of these hunting and trapping traditions had special events associated with them (summarized by tradition in Appendix A). These include festivals, banquets, rendezvous, club meetings, dog field trials, calling contests and other competitions, and community improvement projects. Many of these events would involve nonhunters as well as hunters. Some traditions had no particular special events associated with them that agency respondents were aware of, but the traditions are nevertheless important at the family or peer-group level to those who participate, and sometimes to a wider set of family and friends in their community.

We were also interested in agencies' opinions of the extent to which the future of these traditions is threatened over the next decade. Three categories of threat were provided: overall, from animal welfare or animal rights forces, and from social and cultural changes. It should be

noted that the "overall" category includes areas beyond the combination of the other two categories, such as loss of habitat. A 6-point scale (none, very low, low, moderate, high, and very high) was used to measure agency perceptions of the extent of threat for each tradition.

Table 3-2 summarizes by region those important traditions for which at least one state or province in each region rated the threat as high or very high. A minimum of five different traditions were listed by at least one state or province in each region. Of the 86 total listings (which includes a tradition each time it is listed), 63% attributed the very high or high perceived future threat to overall causes, 69% to animal rights/animal welfare forces, and 60% to social and cultural changes. About two-thirds of the listings indicated that the perceived future threat was either overall or from multiple forces.

From Table 3-2, one can see that the number of these traditions with high sociocultural importance that agencies believe will be highly threatened in the coming decade span the entire U.S. and Canada and a broad range of big game, small game, upland bird, waterfowl, and furbearer species. The greatest number of listings came from the Mountain region, in large part because of the larger number of big game species prevalent there.

Traditions frequently listed as being threatened by animal rights/animal welfare forces include trapping, big game hunting, a wide range of species that are hunted with dogs, and upland bird hunting, especially dove hunting. Many of these same traditions are simultaneously rated as being threatened by social and cultural forces.

All regions except the Pacific indicated that further information about the sociocultural importance of deer hunting was needed (Table 3-3). Some regions expressed interest in bear and other big game hunting traditions, and in pheasant and quail hunting. In addition to better understanding these traditions, some states indicated that they needed information about why hunting and trapping are declining and about ways to attract new hunters.

Table 3-1. Summary of hunting and trapping traditions, by region.

<u>Tradition</u>	<u>Regions Reporting¹</u>	<u>Number of States/Provinces</u>
BIG GAME HUNTING (Not further specified)	MT, WCAN	5
Archery big game	MT	1
Trophy big game hunting	PA, WCAN	2
Antelope hunting	MT	1
Bear hunting (Not further specified)	NE, MA, SA, MT, PA, ECAN	6
Bear hunting by baiting	ENC, WNC, ECAN	2
Bear hunting with dogs	NE, ENC, SA, ESC, MT	6
Bobcat hunting with dogs	ECAN	1
Buffalo hunting	MT	1
Cougar hunting	PA	1
Cougar hunting with dogs	MT	2
Deer Hunting		
General (Firearms)	ALL	31
Archery deer hunting	All U.S. Regions	19
Deer camp hunting	NE, WNC, MT	3
Deer hunting with dogs	WNC, SA, ESC	5
Elk hunting	ENC, MT, PA, ECAN	5
Archery elk hunting	PA	1
Wild hog hunting with muzzleloaders	SA	1
Moose hunting	WNC, MT, ECAN, WCAN	6
Mountain lion hunting with dogs	MT	2
Sheep, goat hunting	MT	2
UPLAND BIRD HUNTING		
(Not further specified)	WNC, MT, WCAN	3
Grouse hunting	NE, ENC, ESC, E CAN	10
Sage grouse hunting	MT	1
Woodcock hunting	NE, ENC	1
Dove hunting	ALL U.S.	12
Pheasant hunting	MA, ENC, WNC, WSC	10
Pheasant hunting with dogs	NE, WNC	2
Quail hunting	All U.S. except NE	13
Chukar hunting	MT	1
Prairie chicken hunting	WNC	1
Turkey hunting	All U.S.	22
Ptarmigan hunting with dogs	ECAN	1

¹ Region abbreviations: NE=New England; MA=Middle Atlantic; ENC=East North Central; WNC=West North Central; SA=South Atlantic; ESC=East South Central; WSC=West South Central; MT=Mountains; PA=Pacific; ECAN=Eastern Canada; WCAN=Western Canada

Table 3-1 (Continued).

<u>Tradition</u>	<u>Regions Reporting</u>	<u>Number of States/Provinces</u>
WATERFOWL HUNTING		
Not further specified	NE, MA, ENC, WNC, ESC, WSC, MT, ECAN, WCAN	19
Duck hunting	ENC, WNC, SA, MT, PA	8
Coastal duck hunting	MA	1
Dabbler hunting	ECAN	1
Murre hunting	ECAN	1
Tabusintac Sinkbox waterfowl hunting	ECAN	1
Goldeneye hunting	ECAN	1
Goose hunting	ENC, WNC, SA, ECAN	6
SMALL GAME HUNTING		
Not further specified	SA, MT, PA	3
Snowshoe hare hunting	NE, ESC	2
Snowshoe snaring	ECAN	3
Snowshoe shooting with dogs	ECAN	1
Gray squirrel hunting with muzzleloaders	MA	1
Squirrel hunting	ENC, SA, ESC, WSC	7
Ozark squirrel camps	WNC	1
Rabbit hunting (often with dogs)	NE, MA, ENC, SA, ESC	8
Archery rabbit hunting	WNC	1
Raccoon hunting with dogs	MA, ENC, WNC, SA, ESC, WSC, WCAN	14
Groundhog/varmint hunting	ENC, SA, MT	3
Predator calling/hunting (often with dogs)	WNC, WSC, MT	3
Fox hunting	ENC, WSC	2
Fox hunting with horses	ENC	1
Fox chasing	MA, SA, ESC	3
Coyote hunting (often with dogs)	WNC, WCAN	3
Coyote coursing	WNC	1
Coyote hunting with centerfire rifles	WNC	1
Archery carp hunting	WNC	1
Frog hunting	ENC	1
Rattlesnake hunting	WSC	1

Table 3-1 (Continued).

<u>Tradition</u>	<u>Regions Reporting</u>	<u>Number of States/Provinces</u>
HUNTING TRADITIONS NOT CHARACTERIZED BY SPECIES GROUPING		
Black hunting	WNC	1
Bowhunting (technique specific)	WNC	1
Guided hunts	PA	1
Hunting with ATVs	SA	1
Hound hunting	PA	1
Native hunting and trapping	PA, WCAN	4
Pack trip hunting	WCAN	1
Primitive weapons hunting	ECA	
Rural homestead hunting	PA	1
Thanksgiving weekend hunting	WSC	1
Subsistence hunting	WCAN	1
Urban hunting and trapping	PA	1
TRAPPING OF FURBEARERS		
	ALL	32
Adirondack trapping	MA	1
Bobcat trapping	MT	1
Fox trapping	ENC	1
Muskrat trapping	ECAN	1
Native American/treaty law trapping	WNC	1
Predator trapping	MT	1

Table 3-2. List of hunting traditions for which "extent threatened" over the next decade was rated "high" or "very high" by at least one state or province of each region.

Region and Tradition	Perceived Cause of Threat		
	Over-all	Animal Rights	Socio-cultural
NEW ENGLAND			
Deer hunting with firearms	X	X	X
Archery deer hunting		X	X
Bear hunting	X	X	X
Upland bird hunting			X
Waterfowl hunting			X
Furbearer trapping	X	X	X
MIDDLE ATLANTIC			
Squirrel hunting with muzzleloaders	X		X
Rabbit hunting	X		X
Grouse hunting		X	
Turkey hunting		X	
Sea duck hunting	X		X
Furbearer trapping	X		X
EAST NORTH CENTRAL			
Bear hunting	X	X	
Upland bird hunting	X		
Turkey hunting	X		
Waterfowl hunting	X	X	X
Furbearer trapping	X	X	X
Bobcat trapping	X	X	X
WEST NORTH CENTRAL			
Deer hunting with firearms	X	X	
Archery deer hunting		X	
Upland bird hunting (pheasant, quail, prairie chicken)	X		
Coyote hunting with dogs		X	X
Predator calling		X	
Raccoon hunting with dogs	X	X	X
Furbearer trapping	X	X	X
Bobcat trapping		X	
SOUTH ATLANTIC			
Deer hunting with firearms, using dogs	X	X	X
Bear hunting	X	X	
Dove and quail hunting		X	
Fox hunting	X		X
Furbearer trapping	X	X	

Table 3-2 (Continued).

Region and Tradition	Perceived Cause of Threat		
	Over-all	Animal Rights	Socio-cultural
EAST SOUTH CENTRAL			
Deer hunting with firearms			X
Bear hunting	X		X
Dove and other quail hunting	X	X	X
Turkey hunting	X		
Squirrel hunting	X		
Raccoon hunting		X	
Furbearer trapping	X	X	X
WEST SOUTH CENTRAL			
Deer hunting with firearms, using dogs	X	X	X
Archery deer hunting	X	X	
Upland bird hunting	X	X	X
Waterfowl hunting	X	X	X
Rattlesnake hunting		X	
Coyote hunting		X	X
Furbearer trapping	X	X	X
MOUNTAIN			
Big game hunting generally	X	X	X
Archery deer hunting		X	
Spring bear hunting	X	X	X
Buck mule deer rifle hunting	X		X
Bear and cougar hunting with dogs	X	X	X
Bighorn sheep hunting		X	
Mountain lion hunting with dogs	X	X	X
Elk bugle hunting		X	
Upland bird hunting	X	X	X
Chukar hunting			X
Upland game hunting	X	X	X
Dove hunting			X
Desert quail hunting			X
Waterfowl hunting	X		X
Furbearer trapping	X	X	X
Bobcat trapping			
Predator trapping	X	X	X
Varmint shooting/predator calling	X	X	

Table 3-2 (Continued).

<u>Region and Tradition</u>	<u>Perceived Cause of Threat</u>		
	<u>Over- all</u>	<u>Animal Rights</u>	<u>Socio- cultural</u>
PACIFIC			
Trophy big game hunting		X	
Deer hunting with firearms		X	
Archery deer and elk hunting		X	
Bear hunting (with dogs)	X	X	X
Cougar hunting	X	X	X
Dove hunting		X	
Hound hunting (bear, wild pigs, some furbearers)	X	X	
Rural homestead hunting and trapping			X
Guided hunting			X
Native hunting and trapping			X
Trapping	X	X	
EASTERN CANADA			
Black bear hunting over baits and snaring	X	X	X
Bobcat hunting with hounds	X	X	X
Golden-eye hunting		X	
Tabusintac Sinkbox waterfowl hunting			X
Raccoon hunting with hounds	X	X	X
Fur harvesting/trapping			X
Muskrat trapping with dogs		X	
WESTERN CANADA			
Big game trophy hunting	X		
Deer hunting with firearms	X	X	X
Resident waterfowl hunting	X		
Coyote hunting	X	X	
Fur harvesting and trapping	X	X	X

Table 3-3. Traditions with agencies' highest priority for gaining additional sociocultural information, by region.

<u>Region</u>	<u>High Priority Information Needs</u>
New England	Firearms and archery deer hunting
Middle Atlantic	Deer hunting
East North Central	Deer hunting; goose hunting and bear hunting also of interest
West North Central	Deer hunting; pheasant/quail hunting
South Atlantic	Deer hunting
East South Central	Deer hunting with dogs; dove hunting
West South Central	Deer hunting; small game hunting
Mountains	Big game hunting; black bear hunting
Pacific	General interest in a number of traditions
Eastern Canada	Moose, caribou, and deer hunting
Western Canada	Domestic hunting and trapping by native people

Chapter 4: Discussion of Sociocultural Information and Research Needs

The Principal Investigators (PIs) met with the project research committee (named in the acknowledgments section of this report) selected from the Human Dimensions in Wildlife Study Group in late February 1994, as called for in the contract scope of work. The PIs presented to this group written summaries of the draft literature review and results of the agency survey that had been received and processed by that time. The charge given to this committee was to develop a prospectus of further information or research needs related to the sociocultural impacts or meaning of hunting and trapping. The PIs facilitated the discussion, assisted at various times by other committee members.

The research advisory team identified gaps in current scientific understanding that fell into two broad information needs regarding the sociocultural characteristics of hunting and trapping in North America:

1. Explanation of why hunting and trapping exist at all in contemporary society.
2. Understanding of the manifestations and consequences of hunting and trapping, in terms of personal and especially social benefits that reflect sociocultural importance.

The advisory team hypothesized that hunting was itself a manifestation of culture, and derived meaning from that cultural base. Hunting contributes to the sustainability of cultures in which hunting is important because it is a vehicle for social interactions, psychological benefits, and philosophical or spiritual fulfillment. Hunting and trapping are uniquely important as ways that some people come to define human-environment relationships or ethics.

The research advisory team recommended that future investigations should: (a) describe cultures or subcultures in which hunting has a role; (b) compare such cultures or subcultures as a way to gain insight about them; (c) describe management implications of findings that provide increased understanding of the role or importance of various cultures/subcultures and of wildlife management programs to those cultures/subcultures.

The advisory team identified four primary categories (A1-A4 below) and four secondary categories (B1-B4 below) of sociocultural characteristics that seem relevant foci for additional inquiry to increase understanding of wildlife management constituencies:

- A1. Social interactions: family, peers, community, group identity
- A2. Psychological aspects: affiliation, Maslow needs, self-identity, learning

- A3. Philosophical/religious/spirituality aspects
- A4. Environmental relationships: stewardship, "sensitivity"
- B1. Technological aspects: artifacts, innovations in equipment
- B2. Legal aspects
- B3. Economic aspects
- B4. Institutional aspects: government, industry, professional/academic

Nine research topic areas were then identified as important for understanding the sociocultural ramifications of hunting and trapping:

1. Personal and social benefits of hunting in North America,
2. Understanding the sociocultural significance of hunting and trapping for ethnic minorities,
3. Cultural identification of agency and academic professionals and public service implications,
4. Importance of hunting, fishing, and trapping for nonparticipants,
5. Sociocultural analysis of hunting and trapping institutions,
6. Influence of hunting and trapping cultures on members' perceptions of the natural environment,
7. Stewardship attitudes and values enhanced by hunting and trapping,
8. Effects of cultural change on hunting and trapping trends, and
9. Legal trends in hunting and trapping associated with cultural change.

In addition, the committee suggested that a symposium that draws together scholarly research papers on the benefits of hunting and trapping would be valuable, especially if it generates more interest in research in this area and perhaps a "state of knowledge" publication.

For those areas in which research and subject matter expertise was available to the committee, a brief research prospectus was prepared. These represent areas that the research committee believes should receive high research priority over the coming decade. Those prospectuses follow.

RESEARCH PROSPECTUS 1

Title: The Personal and Social Benefits of Hunting in North America¹

Issue or Problem: The viability and acceptability of hunting and trapping in North America has been, and will continue to be a topic of debate. Increasingly, alternatives will be proposed which diminish the role of hunting in managing wildlife and providing opportunities for its enjoyment. As we examine the future of hunting, it will be critical to understand the wide range of personal and social benefits it provides. Decisions about hunting should consider these benefits relative to apparent costs.

There is an abundance of popular literature which espouses the benefits of hunting. We infer from these readings that hunting is critical in developing relationships, father-son bonding, enhancing self-concept, promoting physical fitness, increasing environmental learning, defining sense of community, providing for economic viability, etc. However, there is, at best, only sporadic evidence from the scientific community which confirms these suppositions. For example, while there is a growing literature that attests to the economic impacts of hunting, we know very little about the effects of hunting on families and even less about how societies may benefit from a populace which participates in the sport.

Problems are apparent in both the scope and depth of our understanding. Initial work suggests that the benefits offered by leisure activities are much more extensive than superficial appearance might suggest. A recent interdisciplinary gathering on leisure discussed a wide array of potential benefits: philosophical, therapeutic, child development, cardiovascular and physiological, mental health, community satisfaction, organizational wellness, spiritual, learning, self identity, self-actualization, etc. (Driver et al., 1991). To what extent are these consequences of hunting? Answering that question is a major goal for future research efforts.

While it is important to identify the breadth of hunting benefits, it is also important to attain deeper understanding of the personal and societal benefits of hunting identified in previous research. Notably, we have little detail about the effects of hunting on environmental learning, building of family bonds and social relations, and enhancing one's sense of achievement and self confidence. In addition, it would be important to explore the association with long-term societal benefits such as social productivity/deviance, work productivity, quality of life, etc. This represents a second critical area where research is needed.

¹This prospectus was drafted by Michael Manfredo, Colorado State University.

Objectives:

1. Describe and estimate the psychological benefits of hunting and trapping to individual participants and the extent to which individuals feel these activities have no substitutes that provide comparable benefits.
2. Describe and estimate the social and economic benefits provided *to individuals and families* through hunting and trapping.
3. Develop estimates of the environmental learning and environmental stewardship benefits provided by hunting and trapping.
4. Estimate the contribution of hunting and trapping to the physical well-being of participants.

Products: Each of these objectives would provide a separate study report which further characterizes and estimates different types of benefits of hunting and trapping.

Benefits to Management: Results of these studies will have direct utility in 1) educating the public on the benefits of hunting and 2) ensuring policy is developed which gives explicit recognition of these benefits.

Literature Cited:

Driver, B.L., P.J. Brown, & G.L. Peterson. 1991. *Benefits of Leisure*. Venture Pub., State College, Pa.

RESEARCH PROSPECTUS 2

Title: Understanding the Sociocultural Significance of Hunting and Trapping for Ethnic Minorities¹

Issue or Problem: Among the many demographic trends that have implications for hunting and trapping programs of wildlife management agencies in North America is the growth in ethnic minorities. Various projections indicate that by the year 2050 there will be no cultural or ethnic majority. Growth in North America's Asian-American, African-American, Hispanic and other ethnically distinct groups is creating an ethnically diverse population about which we have little specific knowledge regarding cultural values attending hunting and trapping (and fishing) for some segments. As these ethnic groups grow, it is reasonable to expect that their preferences for hunting and trapping programs will become increasingly important considerations for wildlife agencies. The questions proactive wildlife agencies should be asking are: Does hunting and trapping have cultural significance to these groups? If yes, what values and benefits create that significance? And, what are the implications for the nature of hunting and trapping programs that meet diverse expectations (e.g., regarding what constitutes ethical behavior, preferences for game and technique characteristics, etc.)?

Objectives:

1. Identify and describe culturally distinct ethnic/racial minority groups for whom hunting and trapping have value.
2. Describe the nature of hunting and trapping cultural values for such groups and compare those with the dominant Anglo values, including identification of the potential for conflicting expectations/preferences for management programs because of ethnic/cultural values.
3. Develop demand projections for hunting and trapping programs for each ethnic/racial group commensurate with population growth projections available from the U.S. Bureau of the Census.

¹This prospectus was prepared by Daniel J. Decker, Cornell University.

Products: This line of inquiry will provide proactive wildlife management agencies information that enhances projections about which segments of the public likely will be stakeholders and supporters of hunting and trapping programs in the future. In addition, the possibility for culturally induced conflict between ethnic groups with hunting and trapping interests may be anticipated based on information developed from this inquiry. Insights important for fiscal planning and educational program development can be envisioned.

Benefits to Management: The possibility of anticipating demand for hunting and trapping programs among growing segments of the population will help agencies engage in information and education programs, and develop diverse hunting and trapping program elements that will avoid or minimize future conflict and increase benefits to a diverse set of stakeholders.

RESEARCH PROSPECTUS 3

Title: Cultural Identification of Agency and Academic Professionals and Public Service Implications¹

Issue or Problem: Most wildlife professionals and wildlife faculty are of white, Anglo heritage and do not have an understanding of how other ethnic groups value wildlife and wildlife uses such as hunting and trapping. Despite the demographic trends that indicate that there will be no ethnic majority in North American society by mid-21st century, the new students enrolling in college and university wildlife programs and the new agency staff joining wildlife agencies today, people who will be agency and academic leaders in wildlife conservation in the future are predominantly white Anglo-Americans who are receiving little training in cultural diversity implications for management.

As wildlife agencies attempt to increase social benefits of their programs, including hunting and trapping programs, extent of staff understanding of and effective communication with "new" stakeholders are repeatedly found to be key but often deficient factors in developing acceptable and valued programs for them. This problem will be exacerbated as ethnic minorities continue their projected growth and therefore increasingly become stakeholders of interest in management programs, including those directed at providing hunting and trapping opportunities. Similarly, faculty and staff in academic institutions operate largely under an assumption of shared cultural values regarding wildlife conservation as they deal with students and extension audiences. This occurs despite the changing complexion of the students and adult learners academics are interacting with in the classrooms and conference rooms across North America.

Assumptions about the cultural values attending wildlife programs in support of hunting and trapping that generally "worked" for the first 50 years of wildlife management in North America have become increasingly problematic. The changes in cultural diversity projected for the next 50 years portend greater difficulties in providing public service unless wildlife professionals learn more about the cultural significance of hunting and trapping to various ethnic groups (see Research Prospectus 1) and recruit new people from diverse ethnic backgrounds into the profession to create agency staffs more able to work with the future stakeholders for hunting and trapping programs.

¹This prospectus was prepared by Daniel J. Decker, Cornell University.

Objectives:

1. Identify ethnic diversity status and needs of wildlife agencies, and describe efforts underway to meet the needs.
2. Develop detailed hunting and trapping cultural value profiles for wildlife agency staff (e.g., world views about human-wildlife interactions generally and cultural values or benefits of hunting and trapping specifically).
3. Identify cultural or ethnic biases among wildlife professionals in agencies that could interfere with development of hunting and trapping programs to meet culturally diverse stakeholders.

Products: This line of inquiry would provide agencies with an overview of their ability to meet future needs for staff capable of responding to culturally diverse expectations for hunting and trapping programs. As partners in meeting this need, academic institutions responsible for training prospective agency employees will obtain an indication of the magnitude of effort they should devote to diversifying their faculty and student body.

Benefits to Management: Outcomes of this effort will contribute to agencies' and academic institutions' planning for cultural/ethnic diversity. The need is not simply to comply with externally imposed quotas, but importantly to position agencies to be able to respond to future stakeholders in hunting and trapping management programs. Changes need to be made as soon as possible if agencies are to be positioned vis-a-vis staff composition to be proactive for the population demographics projected for the first half of the next century.

RESEARCH PROSPECTUS 4

Title: Importance of Hunting, Fishing, and Trapping for Nonparticipants¹

Issue or Problem: Considerable research has been aimed at enumerating who participates in consumptive wildlife activities and how they benefit from these experiences. But hunters, anglers, and trappers are not the only people who benefit from these activities and who will be affected if opportunities decline. For example, in many families, hunting is a long-standing tradition that includes far more than the hunt itself and involves family members who may not actually purchase licenses. The importance of "ancillary activities" including camping, cooking game, traditional family dinners and other rituals associated with hunting and fishing have seldom been enumerated because most studies have focused only on active participants. The general goal of this research is to develop a broader understanding of the significance of hunting and fishing traditions for people who do not actually hunt or fish.

Objectives:

1. Identify and describe recreational activities and events that are closely associated with hunting, fishing and trapping and which involve people who do not participate directly in the harvest of fish and wildlife.
2. Determine who and how many people engage in these "ancillary activities" associated with hunting, fishing, and trapping.
3. Assess the importance of these "ancillary activities" to the people involved who do not actually participate in the hunting, fishing, or trapping activity.

¹This prospectus was drafted by William Shaw, University of Arizona.

Products: The most frequently cited variables describing hunting, fishing and trapping are participation rates. This study will provide a more comprehensive portrayal of how these activities affect our society by including people who benefit from these traditions but who do not actually hunt, fish or trap.

Benefits to Management: Wildlife management agencies are frequently called upon to justify their programs in terms of their benefits to society. This research will aid in that process by assessing and describing the importance of the rituals and traditions associated with hunting and fishing to people who do not actually engage in those activities.

RESEARCH PROSPECTUS 5

Title: Sociocultural Analysis of Hunting and Trapping Institutions^{1,2}

Issue or Problem: Stakeholders associated with natural resource management are becoming increasingly diverse, as is the ethnic and demographic composition of these stakeholders. Simultaneously, although at differing rates, hunting and trapping participants are increasing in diversity. For example, the number of female hunters increased notably between 1985 and 1991. Yet, there is considerable evidence that the composition of agencies and organizations having the greatest stakes in the continuation of hunting and trapping have remained largely unchanged. The extent to which the programs and communications of these institutions are being modified to meet the needs of changing populations and stakeholder groups needs to be assessed.

Objectives:

For a group of representative hunting and trapping stakeholder agencies/organizations (i.e., governmental and nongovernmental),

1. Analyze ethnic and gender composition of their staffs.
2. Obtain and evaluate any strategic planning documents of these institutions with respect to reaching out to nontraditional audiences.
3. Evaluate program content and communications (content, delivery mechanisms, and characteristics of recipient clientele) to assess the extent to which these institutions are reaching out to wider audiences.

¹This prospectus was prepared by Tommy L. Brown, Cornell University.

²Some native and ethnic groups may have their own hunting "institutions" which are as formalized as those of government and nongovernmental organizations dealt with here. Studies of these institutions would be covered elsewhere, such as in Research Prospectus 1.

Products: Results of this study will provide hunting and trapping institutions a positive critical review of their current cultures and the extent to which those cultures are expanding (changing) or lagging in comparison to what is needed to effectively reach and gain the support of a wider and changing group of wildlife stakeholders.

Benefits to Management: Recommendations from this study will help hunting and trapping institutions understand with greater depth and specificity how their communications can meet changing clientele and be more sensitive to the needs and concerns of those clientele.

RESEARCH PROSPECTUS 6

Title: Influence of Hunting and Trapping Cultures on the Natural Environment Perceptions of Members¹

Issue or Problem: It may be hypothesized that a broad set of values regarding the environment are characteristic of members of hunting and trapping subcultures. This hypothesized association of values and hunting/trapping subcultures may be a function of the "outdoor experiences" inherent in these activities. These experiences may serve to make participants aware of and sensitive to a broader set of environmental attributes that include, but extend beyond the utilitarian harvest of game. Thus, membership in these subcultures may result in a perception of the environment founded on a broader set of values, and, therefore, they would support a broad range of management goals from utilitarian (e.g., production of game species, multiple use forest management) to ecologicistic (e.g., endangered species, biodiversity, ecosystem management). A constituency that recognizes a need to balance the management of environmental resources for human use with the need for resource protection could be essential to agency success in its efforts to achieve a range of management goals.

Agencies have attempted to maintain recruitment into hunting/trapping on the assumption that such efforts were necessary to assure a constituency which would politically and financially support conservation and environmental programs. However, the need for agencies to encourage hunting, trapping and fishing in order to produce "conservationists" has been challenged. One argument is that other experiences (e.g., wildlife viewing) could produce the same perceptions and values and therefore be substituted for the sociocultural influences of hunting/trapping. However, hunting/trapping subcultures do not have to be unique or sole sources of a balanced environmental perspective in order to be valuable to society. It would be useful to document the extent to which the necessary balance of stewardship values is actually identified with--and fostered by--these subcultures.

¹This prospectus was drafted by R. Ben Peyton, Michigan State University.

Objectives:

1. Test the assumption that those who participate in hunting and trapping hold a profile of values that supports both ecosystem management goals and utilitarian resource management goals by investigating existing and new data regarding held values, attitudes and behaviors of these groups.
2. Test the assumption that participation in hunting and trapping subcultures imparts and/or enhances the hypothesized value profile.
3. Assess the loss in supportive values which would result if hunting/trapping subcultures diminished substantially.

Products: The study will provide a synthesis of existing information and some new data to provide an evaluation of the role of these consumptive subcultures in supporting a balanced approach to environmental management that includes both the use and protection of environmental resources. It will not address the extent to which these benefits are unique to these subcultures, but rather will describe substitutes which will have to be found if the subcultures were to diminish.

Benefits to Management: Resource agencies are on the threshold of a major social change. This project would be aimed at assisting agencies to evaluate the current role of consumptive use subcultures in achieving a balanced environment management program and assessing the need for these constituents in some future role. If the assumptions being tested are correct, the study should support the argument that these activities foster more than just funds for a narrow, utilitarian version of resource management. Should the hypothesized range of values be found to exist, agencies would have a basis for soliciting even more political and financial support among their traditional constituents. Further, substantiating that society accrues such benefits from the existence of these subcultures would be a valuable benefit.

RESEARCH PROSPECTUS 7

Title: Stewardship Attitudes and Values Enhanced by Hunting and Trapping¹

Issue or Problem: Hunting and trapping (and fishing) are an integral part of the lives of many North Americans. In many rural communities these activities are woven into the very fabric of the community. These ties are often manifested in hunting/trapping events such as game suppers, turkey calling contests, buck-o-ramas, etc. A flavor of environmental stewardship permeates many of these events. Public support, both within and outside the consumptive arena, runs high for environmental stewardship. However, public support for consumptive uses of wildlife does not garner unanimous support. Wildlife agencies need a better understanding of the relationship between environmental stewardship within rural communities and consumptive wildlife activities. If a positive relationship exists, documentation of that relationship could demonstrate additional benefits of and justification for traditional wildlife uses. If such a relationship does not exist, agencies should work with sponsors of these events to incorporate environmental stewardship activities. Environmental stewardship activities would broaden the base of public interest and support for such community events.

Objectives:

1. Identify rural communities throughout North America that are involved with events promoting consumptive uses of wildlife resources.
2. Identify those events which incorporate environmental stewardship activities.
3. Develop a study to compare the environmental stewardship activities of rural communities with hunting/trapping events to the environmental stewardship activities of rural communities without such events.
4. Define a strategy consistent with study results whereby agencies can promote the environmental stewardship aspects associated with hunting and trapping on a community-wide basis.

¹This prospectus was drafted by James Armstrong, Auburn University

Products: Information collected via this analysis would provide wildlife agencies with quantitative and qualitative evidence of the association between hunting/trapping and environmental stewardship at the community level. Such information could then be used to develop educational programs and strategies to strengthen the support for consumptive use of wildlife resources.

Benefits to Management: The support base for traditional programs within wildlife agencies is shifting. This makes it imperative that agencies not only broaden their management activities to accommodate new constituents but also strengthen their rationale for continued support of traditional uses of wildlife resources (i.e., hunting, trapping, fishing). The close ties of many rural communities to hunting/trapping activities is an area that can lend support to the importance of these wildlife uses for the future.

RESEARCH PROSPECTUS 8

Title: Effects of Cultural Change on Hunting and Trapping Trends¹

Issue/Problem: Most broadly, we posit a change in traditional "rural values" which are associated with providing a nurturing environment for new and continuing hunters. This change may be a function of several distinct but related phenomena. First, the area of urban landscape is increasing relative to rural areas. Suburban sprawl is increasingly a factor, especially in areas adjacent to urban counties. This process results in actual physical changes in the landscape. Second, areas still defined as "rural" may have different residents, with fewer farmers and more commuters linked to nearby urban centers. Although these people are considered "rural" by census definitions, they may differ greatly on a number of variables linked to positive attitudes toward hunting and trapping. Third, it is also possible that the values even of long-term rural residents may also be changing in ways that are less likely to engender support for consumptive wildlife recreation. This trend may be associated with greater information linkages to urban areas; satellite dishes and increased mobility expose rural residents to a great deal of urban-oriented information. Together, these three phenomena may greatly influence local values, with potentially great influence on hunting-related beliefs and values. These trends almost certainly will continue.

Objectives:

1. Identify/better document the demographic and information flow trends in rural areas.
2. Test the degree to which these trends result in the attitude/values shifts hypothesized.
3. Explore the relationship between broader attitudes and values and specific manifestations with regard to hunting-related beliefs, attitudes, values, and behaviors.
4. Correlate these findings with future population predictions to assess future of hunting in these transition zones, and discover how common they will be.

Products: Results of this study will provide substantial insight into the extent to which the broader urban-based media result in attitude and value changes that in turn impact hunting and trapping.

¹This prospectus was drafted by Richard Stedman and Thomas Heberlein, University of Wisconsin.

This information could be critical to understand because in addition to satellite dishes which have been present for at least a decade, technology has recently developed systems to provide cable television through an additional phone line without requiring the satellite dish. Thus, the rate of obtaining cable access in rural areas may soon increase.

Benefits to Management: This study will provide further insights into agencies' constituency location and strength of support, and will help agencies better address the following questions:

What groups are currently most supportive of agency programs?

How/should agencies seek to maintain the traditional rural landscape?

What are the implications of programs which do not recognize these changes?

How might management programs be changed/tailored to address these trends?

RESEARCH PROSPECTUS 9

Title: Legal Trends in Hunting and Trapping Associated with Cultural Change¹

Issue or Problem: Cultural change associated with an increasingly urban or mass media value orientation is increasingly affecting hunting and trapping regulations and practices across North America. This is reflected in public referenda such as the Colorado black bear hunting referendum of 1992 and a number of referenda and court cases that have reduced species or methods allowable for trapping. While wildlife administrators are familiar with some of these cases individually, many lack a deeper understanding of the cultural forces that cause these cases to evolve. A collective analysis of changes in regulations since 1980 is needed to understand the forces that propel these changes and the implications for the future.

Objectives:

1. Inventory new legislation, referenda, and court decisions since 1980 related to cultural changes that have changed hunting and trapping regulations and enumerate these changes. (Generally, these changes will have further restricted hunting and trapping, but evidence of liberalized regulations because of wildlife nuisance and damage problems should also be sought.)
2. For a representative selection of these cases, do a content analysis of media reports on the cases and wildlife agency files.
3. Analyze qualitatively the forces which led to the changes, including such internal forces as weak legislation or inadvisable agency actions (in retrospect), as well as the segments of the public responsible for the changes and the strategies they employed.
4. Based on this information, compile a listing of types of hunting and trapping which are still legal but which are most likely to be threatened in the future, provide the rationale for the types chosen, and discuss proactive steps that agencies might take based on a synthesis of information obtained from this study.

¹This prospectus was prepared by Tommy Brown, Cornell University.

Products: Study results will provide a more comprehensive picture than currently extant of the legal changes in hunting and trapping regulations that are occurring, the cultural forces behind those changes, the mechanisms being used to affect legal change, and how agencies might work proactively to safeguard current forms of hunting and trapping that are culturally important and that are important for wildlife management purposes.

Benefits to Management: Useful insights of several types will be provided to managers: (1) cultural changes that influence legal changes in hunting and trapping, (2) the strategies used (including mis/dis-information) to gain public support, (3) types of hunting and trapping currently in greatest jeopardy of legal challenge, and (4) public education strategies that might be used to present management concerns over these issues.

Chapter 5. Implications

The findings of this Phase I Study have significant and perhaps portentous implications for the future of hunting and trapping, both as a part of the cultural fabric of North America and as traditions that heretofore have been inextricably interrelated with wildlife management. Consider these points:

- ▶ Nearly every responding state and province was aware of several culturally important hunting and trapping traditions; responding agencies collectively listed (with some overlap) 80 different traditions within their state or province that they believed to be culturally important. Many of these traditions (at least five in each region of the U.S. and Canada) were perceived to be highly threatened within the next decade by multiple forces, including the animal rights movement, cultural changes in society, and a variety of other reasons, including such factors as loss of habitat. However, except for situations in which a defined tradition corresponded to a type of license, wildlife agencies typically had little data, and for the most part provided estimates of numbers of participants and some description of typical hunts based on general experiential knowledge rather than systematically collected information.
- ▶ The literature offers perspectives on the evolution of hunting and trapping into modern anglo, black, and native cultures and provides descriptive or anecdotal evidence of some of the social meanings and values of hunting. However an extremely limited number of scientific studies *document* the cultural importance of any hunting or trapping tradition. Human dimensions studies of the past two decades have established typologies of wildlife values, measured a range of attitudes, and helped explain both how acculturation to hunting occurs and societal changes are causing breakdowns in the incidence with which hunting is being passed on to future generations. However, only within the past two or three years have limited studies begun which attempt to explicate and measure the values of hunting traditions to participants and to their social groups.

If those who are in wildlife administration, management, and research - the "wildlife professionals" - have such limited understanding and documentation of the underlying values of hunting and trapping, it is difficult to understand how we can rationally expect or even hope that the 92% of the population who do not engage in these traditions would understand and appreciate their

importance. A great deal of research is needed, and results communicated to the general public effectively to raise understanding of the multifaceted values of hunting and trapping.

Through a limited effort, a group of human dimensions researchers developed nine general prospectuses on differing but complementary aspects of the sociocultural values of hunting and trapping. We emphasize that this an initial attempt at defining a large research agenda that would take a number of years to complete under the best of circumstances. No attempt was made to prioritize the nine areas. The authors and contributors realize that these would need further refinement to meet the context and agency/organizational priorities for a specific research initiative. However, we believe that the prospectuses taken together adequately portray the breadth of research needed to develop a firm grasp of the sociocultural importance of hunting and trapping.

We recommend that the IAFWA Grants-in-Aid Committee establish the sociocultural importance of hunting and trapping as one of their priority areas for research over the next several years, and that they invite research proposals in this area.

The amount of research needed to result in a comprehensive explication of the values of hunting and trapping is so large that it might appear to be overwhelming. While the authors do not minimize the magnitude of the needed research, we believe largely that sociocultural research simply has been neglected, and that the time has come for it to attain a much higher priority than some other areas that have received more previous research emphasis and where the knowledge base is adequate.

Literature Cited¹

- Brown, T. L. and N. A. Connelly. 1994. Predicting demand for big game and small game hunting licenses: the New York experience. *Wildl. Soc. Bull.* 22(2):172-178.
- Brown, T. L., D. J. Decker, K. G. Purdy, and G. F. Mattfeld. 1987. The future of hunting in New York. *Trans. North Am. Wildl. and Nat. Resour. Conf.* 52:553-566.
- Canadian Wildlife Service. 1993. The importance of wildlife to Canadians: highlights of the 1991 survey. Ottawa.
- Decker, D. J., J. W. Enck, and T. L. Brown. 1993. The future of hunting - will we pass on the heritage? *Proceedings, Governor's Symposium on North America's Hunting Heritage*, 2:22-46.
- Decker, D. J., T. L. Brown and J. W. Enck. 1992. Factors affecting the recruitment and retention of hunters: insights from New York. *Transactions, Congress of the International Union of Game Biologists, Univ. of Agricultural Sciences, Gödöllő, Hungary*, pp. 670-677.
- Duda, M. D. 1993. Factors related to hunting and fishing participation in the United States. Phase I: Literature Review. *Responsive Management and U.S. Fish and Wildlife Service*. Harrisonburg, VA.
- U.S. Fish and Wildlife Service. 1993. National survey of fishing, hunting, and wildlife-associated recreation. Washington, DC.
- U.S. Fish and Wildlife Service. 1988. 1985 national survey of fishing, hunting, and wildlife-associated recreation. Washington, DC.
- U.S. Fish and Wildlife Service. 1982. 1980 national survey of fishing, hunting, and wildlife-associated recreation. Washington, DC.

¹Annotated citations from Chapter 2 are not repeated above.

Appendix A. Summary of important North American hunting and trapping traditions by region, as reported by state and provincial wildlife agencies.

NORTHEAST REGION

NEW ENGLAND

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat¹</u> <u>Over'all An. Rts SC¹</u>
Diverse; male, white, high school grad, younger	Deer Hunting (Firearms) (VT, NH, MA), Statewide (VT)	BG Trophy Awards Banquet	3,2,4 1,3 2,4
Similar to other hunters; slightly more diverse	Archery Deer Hunting (VT, NH, MA) Statewide (NH)	3-D archery tournaments	3,2,3 2,4 2,4
Diverse	Deer Primitive Firearms (MA) Statewide		4
Diverse, often from southern part of state Hunt at private camps	North Country Deer Camps (NH) North	opening day	2 1 3
Male, white, high school grad, younger, "blue collar"	Trapping of Furbearers (VT, NH, MA) Statewide	Sp & Fall Conven., Trap. Assoc.	5,3,5 5,2,5 3,4,5
Male, white, diverse but blue collar tendency More ed., income (NH)	Upland Bird Hunting (Grouse, Woodcock - VT, NH; pheasants & with dogs - NH) Statewide	bird dog trials/ field tests	3 2 4 1 1 1
Males, white, all ages,	Turkey Hunting (Spring - NH; Sp & F MA) Southern part	Turkey Fed. banquet, seminars Turkey calling contests	1 1 1
Diverse, inc. white collar	Waterfowl Hunting (VT, NH) Lake Champlain area (VT) Great Bay (NH)	Ducker's Day festival (NH)	3,3 3,2 4,4

¹Perceived extent of threat: Ov'all = Overall threat from all causes; An. Rts. = threat attributable to animal rights movement; SC = threat due to sociocultural reasons.

Northeast - New England, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An. Rts SC</u>
White, male, rural, high school grad, younger; with beagles/hounds	Snowshoe Hare Hunting NE Kingdom (VT)		3,1 1,3 1,3
Small number dedicated hunters	Bear Hunting (w/ hounds in VT); MA, NE VT, W MA		5 5 5
<u>Highest Priority for Further info:</u> Firearms & archery deer hunting			
MIDDLE ATLANTIC			
Diverse	White-tail Deer Hunting (NY, PA) Statewide/different seasons, regs	opening day special meals, club events	3,1 3,1 3,1 A-2
Low-middle income, 30's and 40's age groups	Muzzleloader Deer Hunting (PA) Statewide	competitive shoots, rendezvous weekends	1 1 1
Diverse, white	Archery deer hunting (PA) Statewide	club shoots, banquets	2 3 2
White, male, otherwise diverse	Bear Hunting (PA) NC & NE PA	camp events	1 1 1
Male, many Italians	Pheasant (Mainly Stocked) (NJ) NC and C. NJ		3 3 2
Often below average in ed. & income. Seasonal workers	Adirondack Trappers (fish, beaver, other species) (NY) N.NY	Foothill Trappers Assoc.	4 3 4
Farmers & white-collar professionals	Quail Hunting (NJ, MD) C & SE NJ (Often stocked on WMAs), S. MD		3,3 3,2 2,3

Northeast - Middle Atlantic, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts SC</u>
Professional, well-educated, suburban	Grouse Hunting (MD) W. MD	Ruffed Grouse Soc. dinners	3 4 2
Diverse but more blue collar	Dove Hunting (PA) S. PA	none	1 1 3
White, Anglo, diverse	Sea Duck Hunting (NY) Long Island	waterfowl hunting clubs	4 3 5
White, males over age 25, diverse residence area	Waterfowl Hunting (MD) Upper Potomac River	Ducks Unlimited banquets	
40% of all firearms hunters hunt rabbit (NJ) Rural, blue collar, white with some blacks near urban areas (PA)	Gray Squirrel (w/ special muzzleloader season)(NJ) NW & NC Jersey		A-3 4 3 4
Rural, lower socioeconomic groups	Rabbit (NJ) (with Beagles (PA)) statewide	field events at beagle clubs	2,4 1,3 2,4
Higher socioeconomic groups, larger landowners	Raccoon Hunting at Night (with dogs) (PA) statewide	club events, field trials	1 1 3
Middle income, often with college, urban-rural mix Small but increasing blacks, Hispanics, females (NJ) Skilled laborers, high school education (MD); Rural (PA)	Fox Chasing (PA) SE PA surrounding Philadelphia	hunt has strong social significance	3 1 2
<u>Highest Priority for Further info:</u> Deer hunting	Turkey (Spring NJ; Spring and Fall (MD; PA)) W, NW NJ Most of PA	turkey calling contests, Nat'l Wild Turkey Fed. dinners; habitat projects	3,3,2 2,4,1 2,2,2

MIDWEST - EAST NORTH CENTRAL

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts S-C</u>
"Country Club" deer hunters -NE lower MI singled out; also "deer hunting from camps," late season in UP little info	Deer, Shotgun (OH, IN, MI)		1,3 1,2 1,2
Diverse, significant number of women (OH) Older and lower ed. than archery (IN)	SE Ohio deer camps Statewide (IN)	big buck clubs (IN)	
White, slightly more blue than white collar younger males, rural	Deer, Archery (OH, IL, IN, MI [public land, N. MI.])	clubs, shooting ranges	3,3,3 3,3,3 2,2,1
Average deer hunters	Deer Muzzleloader (OH) statewide	clubs	2 2 2
Unknown	Elk Hunt - Intensively Regulated (MI) Northern Lower MI		1 0 1
Diverse	Bear Bait Hunting (often with bows)(MI) Northern LP & UP	annual convention	4 4 3
Diverse	Bear/hound Hunting-MI)	annual convention	5 5 2
AVG; some black hunters (OH); diverse, rural, older, Lower end of SE scale (IN)	Rabbit (OH, IN) E & SE OH; statewide (IN)	extended family hunts beagle field trials	3,3 1,1 2,3
Diverse, some prof. & females. Aesthetic values important Rural (IL)	Turkey Hunting (OH, IL, IN-Sp); MI (Sp & F) SE OH; S. IN; S. IL.	contests-clubs banquets, long beard contests, calling contests	1 0 1 1,1,4,3 1,1,2,3 1,1,3,2

A-4

Midwest - East North Central, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts SC</u>
Higher end of scale - lots of prof. in group "slightly above average"	Upland Bird Hunting Grouse (OH); (grouse, woodcock, pheasant, quail (MI); Grouse-Woodcock (IN) Woodcock North; Grouse south grouse banquets E. OH	dog training	4,1 1,2 1,2 2 1 1
blue collar, younger, urban (a shooting sport with little effort to attract doves) allowed since 1984	Dove Hunting (IN) statewide		3 3 3
"Above average"; wide range but need for dogs excludes poor Experienced (IL)	Quail Hunting (OH,IL,IN) SW OH, C&S IN; S. IL	dog training, banquet, field trials	4,4,4 1,2,3 3,2,3
"Average"(OH); middle & upper (IN) experienced (IL)	Pheasant Hunting (OH, IL, IN) N OH; NW IN; N. IL	banquets, dog trials	3,4,4 1,3 2,2,3
Avg ed & inc., white male; blue collar emphasis Diverse (MI)	Waterfowl Hunting - (OH, IN, MI); Duck Hunting (IL); Goose Hunting (IL) (MI breaks out general WF hunting, hunting on state lands, big water diving duck hunting, field goose hunting) Lk. Erie shore (OH);N & SE IN DU banquets, local dinners N Ill & Miss. & Ill. Rivers calling contests, decoy shows (IL) field days (dogs),		A-5 2,4,4,5 4,3,2,5 4,3,2,3
Dryland and wetland groups (IN) Farm youth & near-retired rural(OH); blue collar lower income(IN)	Goose hunting -S. IL. art carving, calling (MI) Trapping - Furbearer (OH, IN, IL,MI)	dinner; fur auctions, fur school fund raising activities	4,5,4,4 3,5,5,4 4,3,5,4
Diverse - take vacations to run trap line; rural, 25+	Fox Trappers (OH) statewide		4 4 4
Farmers; white males	Fox Hunting /dogs, group drives (OH) calling S OH; drives N. OH	cookouts	2 1 2

Midwest - East North Central, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts SC</u>
Less ed., rural; Appalachian (OH)	Raccoon Night Hunting (with Dogs) (OH, IN, IL)	point hunts, cookouts, night trials water races, competitive hunts	3,2,3 3,1,3 3,2,2
Diverse, rural(OH); some urban (IN)	Squirrel Hunting E-SE OH; statewide (IN)	family hunts - initiate children(OH)	3,2 1,1 3,2
White, otherwise unknown	Frog Hunting (IN) all rural areas		2 1 1 1

Highest Priority for further info: deer hunting; goose and bear hunting also of interest

A-6

MIDWEST - WEST NORTH CENTRAL

Diverse, with increased SE Asian participation	Forest Camp-based Deer Hunting (MN) N MN	game dinners, big buck contests	2 1 3
Local farmers and other rural residents	Firearms Deer Hunting - Driving Deer in Ag Areas (MN) statewide except for NE MN	hunter breakfasts, game dinners	1 1 1
Diverse, rural; many now live in urban areas (ND) Males with rural backgrounds (MO); some women (NE)	Deer hunting/Firearms, General (IA, KS, MO, ND, SD, NE) statewide; Black Hills (SD)(camp hunting)	trophy contests big buck contests (KS)	1,2,1,4,3 1,2,0,4,3 1,2,3,2,3
Diverse, very few females, rural	Archery deer (IA, KS, NE) statewide (IA, KS), E NE.	organizations train new hunters	1,2,3 0,2,4 2,2,2
Probably older regular season hunters (MN) Diverse (KS)	Muzzleloader Deer Hunting (MN, KS, NE) statewide esp. E (KS)	none rendezvous, meetings	3,1,2 2,1,2 3,1,2

Midwest - West North Central, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts SC</u>
Unknown but diverse	Party-based Moose Hunt N MN	none	3 3 2
Unknown	Bear Hunting with Bait (MN) N MN	none but strong local business impact	3 3 3
Male, middle aged, rural; younger (IA) Some now urban (ND), native Am. (KS)	Trapping (MN, IA, ND, KS, NE) statewide	fur handling contests, trappers mtgs	4,2,4,2 3,1,5,4 2,3,5,4
100% Native American	Trapping: Treaty Law (MN) Reservations, primarily North		4 5 2
Male, rural, white	Predator Calling (Canids) (MN) statewide	none	3 5 2
Farm/rural, less well educated Diverse (KS)	Coyote Hunting - Dogs (KS, IA), centerfire rifles (IA) S. IA	some clubs, game dinners dinners, field trials, bench shows (KS)	0 0 0 4 4 4
Rural, lower income, with women and children	Coyote Coursing (KS) (with trucks, dogs, radios) Esp. W. KS		4 5 4
Blue collar, low income Diverse (KS)- some blacks	Raccoon Hunting (night) (MN, IA, KS) S. MN, statewide (IA) E. KS	coon hunting clubs, dog shows, trials state champion night hunt (KS)	4,0,4 5,1,4 4,2,3
Diverse, often with rural connections More youth & women than other types (ND) Rural ag activity; others with rural ties Diverse, white (KS)	Pheasant Hunting (MN, IA, ND, SD) Upland Game (NE); Pheasant & Quail (KS) statewide (IA) C&W SD Southern MN statewide & out of state (KS)	banquets, pancake breakfasts; lunches dinners w/strong local econ. impact (SD) pheasant chapter mtgs. many special meals opening weekend	1,3,2 2,0,1 2,2,3 2 1 3 4 2 2

A-7

Midwest - West North Central, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat</u>
			<u>Ov'all An Rts SC</u>
Non-low income, experienced hunters	Prairie Chicken Hunting (KS) statewide & wealthy nonresidents	meal promotions	4 2 3
Diverse	Mourning Dove Hunting (KS) statewide	group hunt traditions; often used to instruct new hunters	3 3 1
Diverse; urban and SE MN residents Gov's turkey hunt KS - high income people White males, rural backgrounds (MO)	Turkey Hunting (SP -MN, IA, KS; S & F -MO, NE); Governor's Turkey Hunt (KS) statewide IA El Dorado are (3 counties) statewide (MO)	NWT Fed. mtgs. socials, awards banquet (KS) size contests, calling contests (MO)	1,2,2,1,2 1,2,1,0,1 1,2,1,2,2
Diverse, 45% urban, above average incomes	Duck Hunting (MN) (Early & Late season - diving ducks on larger waters) statewide	fund-raising banquets	3 2 2
Above average education, income Diverse (KS)	Goose Hunting (MN, NE) Southwest MN; statewide (NE) statewide (KS)	local banquets some lodgng/meal promotions (KS)	2,2,3 2,2,3 2,2,2
Diverse, including women & youth (ND) Urban/small town/rural split; higher incomes than other hunting (MO)	Waterfowl Hunting (IA, MO,ND) (Duck -NE) statewide South and major drainages (MO) hunt. lodges, private clubs (MO) community fall celebrations (ND)	none (IA)	3,2,1 3,2,0 1,2,2
White, young to middle-aged males	Squirrel Hunting; Ozark Squirrel Camps (MO) statewide; family camps in S. MO	camp events	0 0 0
(Special events) Diverse, some blacks & Nat. Amer.	Archery Rabbit (KS); Archery carp hunt (KS) Cheyenne bottoms	group meeting	3 3 3
Young to middle-aged white males	Bowhunting (Technique-oriented interest) (MO) statewide	target competition; weekend camps	1 1 1
	Black Hunting (MO)		

Midwest - West North Central, Continued

Highest Priority for further info: deer hunting; why hunting is declining; pheasant/quail hunting (KS)

SOUTH - South Atlantic

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat</u>
			<u>Ov'all An Rts SC</u>
Diverse; some females and minorities (South)	Deer Hunting ("Still Hunting") (FL, SC, DE, WV) statewide	archery, black powder clubs, hunt camps, breakfasts	2,2,2,2 2,3,2,3 5,2,2,2
Diverse; some Hispanic in S. FL.	Muzzleloader, Deer & Wild Hogs(FL); deer (WV) statewide, mostly N. FL.	little organization	3,1 3,1 2,1
Blue collar, small but growing Hispanic	Airboat, Tracked Vehicle, Swamp Buggy (S. FL) (Mainly white-tailed deer; also feral hogs, small game, waterfowl S. FL.	game dinners	4 4 4
Rural, lower income, self-employed, some retirees	Trapping (FL, SC, DE) N. FL, statewide (SC)	rendezvous	4,4,3 4,3,4 3,3,2
Above average, more urban-based (FL); diverse (SC)	Deer Hunting, Archery (FL, SC, WV) statewide	bowhunters' jamboree, clubs, help hungry	3,2,3 3,3,2 2,1,2
Blue collar to middle income, some all-black clubs	Deer Hunting with Dogs (FL, SC); Dog Deer Hunting Clubs (NC) statewide	club fundraisers	3,3,4 5,1,3 5,3,4
Rural, white, age 45+ (NC) Diverse, some women (SC)	Bear Hunting (NC)(with dogs)-(SC, WV) mountains mountains	bear hunters assoc. events	4 4 3 4,3 4,3 3,2
Middle-upper middle class, white	Duck Hunting (FL, SC); Coastal Duck Hunting - NC; Ducks and Geese (DE) statewide	DU, green wings events, local clubs	2,3,3,3 2,3,1,1 2,3,3,1
Diverse, 33% college grad	Turkey Hunting (FL, WV) statewide	calling contests	3,2 1,2 1,3

South - South Atlantic, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat</u>
			<u>Ov'all An Rts SC</u>
	Opening Day Dove Hunting (NC); Dove Hunting (SC)		
Diverse, increasing female, urban and rural, some blacks	statewide	pork barbecues	3,3 4,1 2,3
	Quail Field Trial Clubs (NC); Quail Hunting (SC)		
Higher income, rural and urban, white, male	coastal plain and piedmont Turkey Hunting (NC)	dinners, banquets, Quail Unlimited	3,3 1,4 3,2
Diverse, higher socioec. level, mostly white	statewide	banquets, club mtgs to promote restoration	1 1 1 1
	Fox Hunting (NC-w/o horses, SC); Fox chasing (DE)		
Older, rural, male, white (NC, DE) "Redcoats" (upper middle class); "Tailgaters (rural, often farm.)	statewide sand ridge region (SC)	clubhouse dinners, barbecues horse-related events (Rdct); field trials (Tlgt)	4,5,2 3,1,3 4,5,2
Tradition in both black and white communities. Rural	statewide	Thanksgiving Day Rabbit Hunts(NC); Rabbit Hunting (SC)	
		family activity; Rabbits Unlimited (SC)	3,2 1,3 3,2
Diverse but significant black subsistence hunters	statewide	Squirrel Hunting (SC); Small Game Hunting -DE)	
		squirrel dog field trials (SC)	2,3 2,2 3,2
Rural lower, lower middle class; significant number of blacks Diverse (WV)	statewide	Raccoon Hunting(SC,WV)	
		family oriented coon clubs - youth emphasis	2,2 2,3 0,2

A-10

Highest Priority for further info: deer hunting; information to help recruit new hunters



SOUTH - EAST SOUTH CENTRAL

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat</u>
			<u>Ov'all An Rts SC</u>
	Deer Hunting ("Still Hunting") (KY; Public Lands - AL)		
Diverse; blue collar - middle income	statewide		2 3 1
Middle age and older, urban	Deer Club Hunting (AL) southern 2/3		2 2 2
Diverse Some all-black clubs (NC); clubs segregated	Deer Hunting with Dogs (AL) southern 2/3(AL)		3 3 4
Diverse; mid to upper ed.	Waterfowl Hunting (KY, AL) statewide		1,4 4,1 3,1
Diverse; upper ed-inc.; blue collar (MS)	Dove Hunting (KY, MS) statewide	wild game cookout	2,1 2,1 2,1
Diverse	Grouse Hunting (KY) E.KY		1 1 1 1
White collar; diverse-some farm/forestry	Quail Hunting (MS, AL, KY) statewide; S. AL		2,5,1 2,3,1 3,5,1
Diverse; some females	Morning Dove Hunting (AL) statewide		4 4 4 3
Diverse	Turkey Hunting (KY, AL) statewide	Nat. W. Turkey banquets	4,1 3,1 3,1
Rural, lower income, laborers	Trapping (MS, AL) statewide		4,5 5,4 3,4
Blue collar, below average ed & inc.	Bear Hunting with Dogs (MS) statewide	club events	4 3 4

A-11

South - East South Central, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat</u> <u>Ov'all An Rts SC</u>
Diverse, mostly rural, less educated	Squirrel Hunting (KY, MS, AL) statewide	stew cookouts	2,4,1 3,2,1 2,3,1
Diverse; middle to low income & ed.(KY) Popular among blacks (AL)	Rabbit Hunting(KY, AL) statewide		1,2 1,3 1,3
Diverse; blue collar	Raccoon Hunting (KY, MS, AL) statewide	competitions	1,2,3 1,2,4 1,3,3
Diverse	Fox Hunting (KY) (Do not take foxes) statewide		1 1 1 1

A-12

Highest priority for further info: deer hunting with dogs; dove hunting

WEST SOUTH CENTRAL

White rural males 25-45	Deer Hunting (Firearms) (OK) statewide	occasional "big buck" contests	3 3 2
Urban w/ rural b'kgr'd; middle class, white & Hispanic	Deer Hunting on Private Lands (TX) E,C,S TX	suppers PM before opening day	2 1 3
Rural males, older, white	Deer Hunting with Dogs (AR) Mountains, gulf coastal plain	game dinners, deer camp activities	4 4 4
White rural males 25-45 (AR) Urban, well educ. (TX)	Deer Hunting -Archery (OK, TX) statewide (AR), C&E TX	club meetings, award night target shoot tournaments (TX)	4 5 2 3 3 2
Diverse, with some female and minority participation	Spring Turkey (OK, TX) statewide	Wild Turkey Fed. mtgs.	2 2 2

Participant Characteristics

South - West South Central, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat</u> <u>Ov'all An Rts SC</u>
Rural, blue collar, less education Diverse (LA)	Squirrel Hunting (OK); (Opening Weekend (LA) E. OK statewide	squirrel meals at homes or camps (LA)	1 1 1 1 1 0
Diverse; out of state (AK) upper income urban (TX)	Quail/Pheasant Hunting(OK; Quail - TX) Quail - statewide (OK); pheasant NW quail clubs		3,2 3,1 4,2
Diverse but white; some Hispanic (TX). Often initial hunting experience (TX) N,C,E TX Middle to upper income (LA)	Dove Hunting (LA, OK, TX) statewide (AK, LA) some special shoots (AR) Opening day community hunts (TX) private social barbecues (LA) Waterfowl(OK; LA)		4 4 4 2 3 2 1
Males, average to above average ed., income (OK, LA) Highly ed. upper inc. urban (TX)	E. OK; coastal and agr. LA DU Banquets (OK); calling contests (LA) Panhandle, coastal TX group hunts		5,3 4,2 4,2 3 3 2
Rural lower middle class males	Predator Calling/Hunting (Coyote, Gray Fox, Bobcat) (OK) W&C OK	trappers/harvesters Assoc.	2 2 2
Diverse, including children	Raccoon Hunting with Hounds)(OK) statewide	Fed. of Coon Hunters	1 1 1
Lower middle class white males, high school ed., rural	Trappers (OK); Coastal Trapping (LA) statewide (OK) coastal (LA) trappers/harvesters associations fur & wildlife festivals; alligator festivals (LA)		4 3 4
Rural, lower ed. levels	Fox hunting (AR) mountains		3 4 5
Diverse but Caucasian	Rattlesnake Roundups/Hunting (OK) W. OK	(community sponsored events, often for fundraising efforts)	3 4 3
All age groups; family hunting	Thanksgiving Weekend (LA) (Virtually all game species) statewide	private hunts, game dinners	2 2 1

A-13

South - West South Central, Continued

Highest priority for further info: White-tail deer hunting, small game hunting

Participant Characteristics	MOUNTAINS		Special Events	Extent of Threat Ov'all An Rts SC
	Area of State where Occurs			
Diverse tending toward middle income, avg ed.(WY) Lower ed. farm & ranch backgrounds (CO)	Big Game Hunting -Wilderness(WY, CO)			
	W. WY			4 3 4
Probably male, largely suburban	W. CO	guides/outfitters rodeos, dinners		3 3 3
	Big Game Hunting - Group camps (CO)	families have additional social ties		3 3 3
Blue collar, lower incomes, rural	Muzzleloading Rendezvous (CO)			
	W. CO	biggest elk, best clothing contests		3 3 3
Diverse, some Hispanic and black	Big Game Hunting -Non-Wilderness (WY)			
	statewide (WY)	community game dinners, one-shot antelope hunt	5	4 4
Diverse; family outing; strong Mormon tradition Diverse, including Hispanics (AZ)	Buck Mule Deer Rifle Hunt (UT, AZ)			
	statewide	traditional camp sites; schools closed big buck contests, game dinners,		4 3 2 4 2 4
High school & some college, 90% male	Deer & Elk Firearms Hunting (MT)			
	statewide	Rocky Mt. elk banquets		1 1 1
Above avg ed.; fathers & sons; friends (UT) Diverse, tending toward older (40+) (CO)	Archery-Deer Hunt (UT)Big Game-(CO)			
	statewide (UT); W. CO	archery competitions prior to hunt annual jamboree (CO)		1,3 1,4 1,2
Similar to elk, deer	Antelope Hunting (MT)			
	E. MT			1 1 1
Diverse, white	Elk Bugle Hunting (NV)			
	NE, EC NV			3 5 3

A-14

Mountains, Continued

Participant Characteristics	Mountains, Continued		Special Events	Extent of Threat Ov'all An Rts SC
	Area of State where Occurs			
Rural, lower socio-econ.	Cougar & Bear Hunting with Dogs (UT, Cougar -NV)			
	S. UT; statewide (NV)	running & training dogs all year		4,5 5,4 5,4
Similar as for hunters generally	Bear Hunting (MT)(SP & FALL)			
	W. MT			2,2,1(Fall) 4,5,4 (SP)
Moderate ed. in ag & trades, blue & gray collar supplemented by guiding, bounties	Mountain Lion Hunting with Dogs (AZ, MT)			
	All but NW AZ; W & SC MT			5,5 5,3 4,3
Similar to general elk, deer hunters	Moose, Sheep, Goat Hunting (MT)			
	W. MT			2 2 1
Prof. above avg incomes	Bighorn Sheep Hunting (NV)			
	statewide	various bighorn organization banquets		3 5 3
Low income & ed. levels	Bobcat Trapping (UT)			
	statewide	Trappers Assoc. events		5 5 5
Diverse - help needed from family/friends	Henry Mt. Buffalo Hunt (UT)			
	SE Utah	scouting, orientation		1 1 1
Diverse, tending toward upper middle class	Chukar Hunting (NV)			
	N. NV	dog field trials, clubs, game feeds blind building prior to season		3 2 4 3 2 3
Diverse; above average incomes for hunters; 20% women(MT) W & SE WY; N & C NV; E.MT	Upland Game Hunting (WY, MT)(Sage grouse -NV)			
	W & SE WY; N & C NV; E.MT	3-shot sage grouse hunt		3,4,3 3,4,2 3,5,3
Diverse "all ethnic/racial groups in opening day hunt"	Dove Hunting (AZ)			
	Lower desert, ag areas	(none)		3 3 4
	Desert Quail Hunting (AZ)			

A-15

Mountains, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts SC</u>
Diverse	Turkey Hunting F&S (MT) SE & SC MT		3 3 3 3
	Waterfowl Hunting (WY, UT, MT) Club-Based Duck Hunting (CO)		
Less educated, lower income (MT) Mid to upper income; urban (UT, CO)	Statewide in wet areas (MT) E.CO; Statewide (WY), E Shore Gt Salt Lake	DU banquets, stamp artwork compet. 2-shot goose hunt	4 3 4 3,2 2,2 3,3
Diverse; intro activity for youth	Small Game Hunting (WY) statewide		3 2 3
Lower ed & income males - blue collar farm/ranch/log	Fur Trapping (NV, CO, MT) statewide	regional fur sales, rendezvous	3,4,3 4,5,4 5,4,3
Rural, all ages, avg ed & income some Hispanic and Basque representation	Predator Trapping -Livestock Damage Control (AZ) statewide		
Largely blue collar, large age range, urban & rural	Varmint Shooting and Predator Calling (MT) statewide	coyote hunt competition	4 5 3
<u>Highest priority for further info:</u> big game hunting; black bear hunting			

A-16

PACIFIC REGION.

Diverse	Rifle Deer Hunting (CA) statewide	40 sportsmen's orgs.	3 4 3
Males, diverse	Mule Deer Hunting (OR) central OR & Blue Mt. region	contests, dinners, workshops	2 2 3

Pacific Region, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts SC</u>
Diverse, from W. OR	Black-Tailed Deer Hunting (OR) coastal mts and Cascades	dinners, picnics, workshops	1 1 2
White, white collar urban	Trophy Big Game Hunting (bull elk, pronghorn antelope, bighorn sheet)(CA) varies with species	funding research, holding banquets	3 4 2
Diverse, from W. OR.	Elk Hunting (OR) NE & NW OR.	Elk Assocs. hold local banquets	2 2 3
Middle to upper class; young & middle-age groups	Archery Deer Hunt (CA) statewide	CA bowmen dinners, events	3 4 3
White, male, diverse	Archery Elk Hunting (OR) NE & NW OR	club dinners, tournaments, contests	3 4 3
Diverse, middle-aged males	Muzzleloader Deer Hunting (CA) statewide		
Diverse, white, male	Bear Hunting (OR) coastal and Cascade range	OR. sporting dogs assoc. events	5 5 5
White, diverse	Cougar Hunting (OR) SW OR & other parts of OR		
Diverse; lower socioec on public than private lands	Duck Hunting (CA) C & NE CA	fund-raising dinners	2 2 2
Lower socioec.	Geese Hunting (CA) statewide	calling contests	2 2 2
Males, diverse socioec.	Turkey Hunting (CA) -Spring statewide	N.W. Turkey dinners/events	1 0 0

A-17

Pacific Region, Continued

<u>Participant Characteristics</u>	<u>Area of State where Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts SC</u>
Diverse	Morning Dove Hunting (CA) statewide		3 4 3
Lower income (CA), rural white male (OR)	Trapping (CA, OR) statewide	fur sales (CA) events of OR Territorial Council on Furs	4,4 5,5 2,2
lower end of socioec. scale	Hound Hunting (CA) (bear, wild pigs, some furbearers) varies by species	CA Houndsmen for Conservation	4 5 3
White, Diverse backgrounds	Urban Hunting and Trapping Traditions (AK) hunt along areas accessible by road	variety of organizations	substantial concern due to social and cultural forces
Variable	Rural "Homestead Hunting and Trapping (frontier tradition) (AK) throughout rural Alaska	few formal groups/activities	same as above
White, diverse backgrounds	Guided Hunting (AK) statewide, primarily for fall big game hunts	association dinners, events	same as above
Many native groups	Native Hunting and Trapping Traditions (AK) full variety of species, including marine mammals	many native ceremonies	same as above

HAWAII

Hawaii's return was not species or group-specific. Hawaii has no trapping.

Highest priority for further info: general interest in several traditions

<u>Participant Characteristics</u>	<u>Area Where Hunt Occurs</u>	<u>Special Events</u>	<u>Extent of Threat Ov'all An Rts SC</u>
Diverse, white English and French	Moose Hunting (NB, NS) Throughout (NB); Cape Breton Island (NS)	licenseholders accompanied by others	0,2 0,1 0,2
Diverse male, equal urban/rural	Elk Hunting (Man.) lowlands and forest aspen zones (Man.)	Big Game Trophy Night, elk org. events	2 2 3
Diverse - white - English and French	Deer Hunting, Firearms (NB, NS) Throughout	breakfasts at churches and community centers	0,2 0,2 1,3
Rural males, farm and blue collar (NB)	Black Bear Hunting (NB) (over baits and snaring) (NS) Throughout		4,3 5,3 4,2
White rural males, farm backgrounds	Bobcat Hunting with Hounds (NB) S. NB	NB Cat & Coon Club	4 5 4
Cree Indians	Goose Break (QU) James Bay region		0 0 2
White, rural, diverse	Golden-eye Hunting (Whistlers) (NB) S.C. NB; along St. John River		3 4 3
Rural males, farm/fish/forestry occupations	Tabusintac Sinkbox Waterfowl Hunting (NB) NE shore of NB.		3 3 4
Diverse but weighted toward lower socioeconomic groups	Dabler Waterfowl Hunting (NS) Throughout		3 3 2
Tending toward lower socioec. groupings, many involved with fisheries occupations	Waterfowl Hunting - Sea Ducks and Diving Ducks) (NS) Coastal areas, estuaries, harbors		3 3 2

Participant Characteristics

Eastern Canada, Continued

Area Where Hunt Occurs

Special Events

Extent of Threat

Ov'all An Rts SC

Canada Goose Hunting (NS)	Throughout, especially Atlantic coast	3	3	2
Murre "Ture" Shooting (NF) Coastal NF		3	1	3
Fur Harvesting /Trapping (NB, NS, NF)	annual conventions, rendezvous	3,2,4	4,5,4	3,3,3
Throughout				
Muskkrat Trapping with Dogs (QU)				
Lac St. Pierre region		3	4	0
Beaver Break (QU)				
NW QU		2	3	3
Snowshoe Hare Snaring (NB, NF) (Can be sold for consumption in NB)				
Where suitable habitat exists (NF)		1	3	1
NW, North Shore and East Shore (NB)		3	2	3
Snowshoe Hare Shooting (with hounds -NF)				
Associated with large towns/cities	rod & gun club events	2	2	2
Upland Game Hunting (ruffed grouse, snowshoe hare) (NS)				
Throughout		2	3	2
Ptarmigan Shooting (over pointers (NF)				
Near cities and towns	Partridge Forever; rod & gun events	2	1	2
Ruffed Grouse Hunting (NB)				
Throughout	Ruffed Grouse Society events	3	3	3
Raccoon Night Hunting with Hounds (NB)				
S. NB	NB Cat & Coon Club	4	5	4

Eastern Canada, Continued

Highest priority for further info: moose/caribou hunting (NF); white-tailed deer hunting (NB)

WESTERN CANADA

Participant Characteristics

Area Where Hunt Occurs

Special Events

Extent of Threat

Ov'all An Rts SC

Big Game Hunting, Commercial (NWT) W & C NWT				
Big Game Harvesting, Domestic (NWT)				
All regions	community functions, feasts	2	3	1
Big Game Sport Hunting(NWT)				
W. NWT	very few	3	2	2
(Big Game) Trophy (ALB)				
Deer - SE; Sheep and elk on W. Mt. edge	trophy nights - F & G Clubs	1	2	2
Primitive Weapons Hunts (ALB)				
Throughout; especially near urban areas	trophy nights	1	2	1
Resident Big Game Meat Hunters (BC)				
Throughout; heavier in N. BC.		3	2	2
Resident Big Game Trophy Hunters (BC)				
throughout; heavier in N. BC.		4	3	3
Moose Hunting (MAN); Moose and Caribou; Subsistence (YK)				
boreal forest and lowlands (MAN)	trophy and calling competitions (Man)	2	2	3
N. SK	community game dinners	3	2	4
Throughout (YK)		1	1	1
Elk Hunting (MAN)				
lowlands and forest aspen zones (MAN)	Big Game Trophy Night, elk org. events	2	2	3

Western Canada, Continued

<u>Participant Characteristics</u>	<u>Area Where Hunt Occurs</u>	<u>Special Events</u>	<u>Extent of Threat</u> <u>Over All An Rts SC</u>
Diverse male; higher ed. (SK)	Deer Hunting (ALB, MAN) S. MAN; S. SK	Big Game Trophy Night, King Buck Night dinners, habitat restoration work (SK)	2,4 2,4 3,4
Treaty Indian groups, Metis rural/growing urban	Domestic Hunting (MAN) Throughout (MAN)	traditional ceremonies	3 0 2
Young, highly educated; middle-aged, affluent	Pack Trip Hunts (ALB) (Involves packing equipment into remote areas to hunt for a variety of species) N. ALB.; other remote areas		2 1 1
Urban, mean age of 40	Migratory Game Birds/Waterfowl (MAN) Throughout Arctic, prairies	one-box hunts, Tin Town Fowl Supper	2 2 3
Rural, male, somewhat older	Upland Game Bird Hunting (BC) Throughout		3 2 2
Rural, male, somewhat older	Resident Waterfowl Hunters (BC) SW Mainland		4 2 3
Rural, male (BC) Native Indian, includes women (ALB)	Native Subsistence Hunting (BC, ALB); Throughout Especially on reservations (ALB)		3,2 2,1 2,1
White, male, farming-related	Coyote Hunting (SK) S. SK		4 4 3
Males usually over 45 from U.S., Canada, Europe	Nonresident Hunting (Primarily Big Game) (BC) Throughout		4 3 3
Majority aboriginal, subsistence; white also in SK Rural, diverse (BC)	Fur Harvesting /Trapping (MAN, BC, SK, NWT); Muskrat Trapping (YK) Throughout; N. YK	trapper's festival, winter carnival (MAN) annual convention (SK)	3,3,4,3 4,4,2,1 1,2,2,4 4 5 3

A-22

Western Canada, Continued

<u>Participant Characteristics</u>	<u>Area Where Hunt Occurs</u>	<u>Special Events</u>	<u>Extent of Threat</u> <u>Over All An Rts SC</u>
Diverse, all ethnic/racial groups	Marten Trapping (YK) Throughout except SW corner		2 1 3

Highest priority for further info: Domestic hunting and trapping by Aboriginal/native people