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**IMPORTANCE OF DEER TO RESIDENTS' AND NONRESIDENTS'
RECREATIONAL EXPERIENCES IN NORTHERN NEW YORK**

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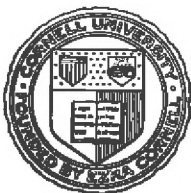
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STUDY NUMBER AND TITLE: VIII - Identifying Attitudes and Values Toward Species and Their Management

JOB NUMBER AND TITLE: VIII-8 - Recreationists' Attitudes Toward Management of Deer in Northern New York

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EXECUTIVE SUMMARY

INTRODUCTION

Background

This report is the third from a series of studies specified by the New York State Department of Environmental Conservation (DEC) in the Northern New York Strategic Plan for Deer Management. The primary purpose of the previous 2 studies was to identify attitudes toward several management issues related to deer hunting in the Northern Zone (NZ) of New York. While the Northern New York Strategic Plan for Deer Management emphasizes deer hunting for population management and recreation purposes, it also stresses the interests of nonconsumptive users (both residents and nonresidents) of the NZ deer resource. But, because little is known about the extent or nature of utilization and benefits associated with nonconsumptive uses of deer in the NZ, it is difficult for the DEC to develop management objectives, programs, and program evaluation criteria to reflect the needs of this public. Consequently, two general recreationist audiences were studied in 1985: residents of the NZ, both permanent and seasonal, and Southern Zone (SZ) residents who visited the NZ.

Study Objectives

The objectives of this study were: (1) to estimate the proportion of NZ residents and SZ nonconsumptive recreationists who considered deer an important component of their recreational experience, (2) to describe the role that the nonconsumptive use of wildlife played in the survey audiences' overall NZ recreational experience (i.e., the importance of deer vis-a-vis other features of the experience), and (3) to determine the potential demand for various facilities or services that would enhance NZ residents' and SZ recreationists' nonconsumptive use of the NZ deer resource.

Deer Preference Typology

A Deer Preference Typology was developed to identify and analyze the characteristics of respondents expressing various levels of interest in NZ wildlife in general and in NZ deer in particular. For the purposes of this study, 3 orientations toward deer and wildlife were identified a priori, hence 3 Deer Preference Types were created. SZ recreationists in the "Deer Enthusiast" type felt that the experience of seeing or hearing wildlife was

extremely or moderately important to their decision to visit the NZ and mentioned deer as 1 of the 3 wild animals they most liked to see or hear in the NZ. NZ residents in the "Deer Enthusiast" type felt that the experience of seeing or hearing wildlife was extremely or moderately important to their outdoor recreation activities in the NZ and mentioned deer as 1 of 3 wild animals they most liked to see or hear in the NZ. SZ recreationists and NZ residents in the "Wildlife Enthusiast" type also rated wildlife experiences as extremely or moderately important, but did not mention deer as 1 of 3 preferred kinds of wildlife. Respondents in the "Disinterested" type considered wildlife experiences of slight or no importance in their decisions to participate in NZ recreational activities; thus, their preferences for individual wildlife groups or species were not considered in the categorization.

RESULTS

Nonresident Recreationist Survey

One-half of the nonresident recreationists (hereafter referred to as recreationists) were classified as Deer Enthusiasts and nearly 1/3 were in the Wildlife Enthusiast type; 1/5 were in the Disinterested group. About 90% of both Enthusiast types indicated that the presence of natural features (lakes, mountains, forests, wildlife, etc.) was a reason for their decision to spend leisure time in Northern New York, with about 1/2 considering it to have been the most important reason. The availability of recreation activities (wildlife observation being one of many) was listed by >80% of the 2 Enthusiast types as a reason for their Northern New York trip. One-quarter of the Enthusiast types rated availability of recreation activities as their most important reason for the trip.

The importance recreationists attached to experiencing wildlife vs. other features of nature was examined. The 2 Enthusiast types felt that the opportunity to experience each of the natural features influenced their decision to recreate in Northern New York. "Seeing rivers or lakes" was the most important experience, with "seeing, hearing wildlife" and "seeing mountains" being of considerable, though lesser, importance. By definition, all people in the Deer Enthusiast type listed deer as 1 of their 3 most preferred kinds of wildlife, with about 1/2 of this type listing deer as the most preferred species. Their second wildlife preference was bear, preferred

by almost 1/2 of the Deer Enthusiasts. Wildlife Enthusiasts were more likely than Deer Enthusiasts to prefer encounters with waterfowl, raptors, large mammalian predators, and moose. About 2/3 of the Disinterested type mentioned deer as a preferred species, suggesting that they may be attracted to programs related to deer if their interest in wildlife could be heightened.

Activity Participation

Over half of the Enthusiast types observed or photographed wildlife on their trip. Few recreationists (<3%) considered wildlife observation/photography to be the activity that most influenced their decision to visit Northern New York. In addition, wildlife experiences probably will not be a major factor in future decisions to revisit this region because this activity was listed by 3% or less of the recreationists as the one most enjoyed. Nevertheless, participation rates indicate that the majority of these people had some direct involvement with the wildlife resource in Northern New York. People in the Disinterested type, on the other hand, were less likely to have participated in wildlife observation/photography.

Deer sightings have not been rare occurrences in Northern New York. About 2/5 of all types reported that they had seen a deer on a previous trip to the region during 1982-84. In fact, previous deer sightings were reported with similar frequency as sightings of other animals. Slightly fewer, though still about 1/3, of all types expected to see deer on their 1984 trip. This level of expectation was nearly as high as that for other animals reported by the Deer Enthusiast and Disinterested types. Higher proportions of Wildlife Enthusiasts expected to see small mammals, songbirds, or waterfowl than deer.

Satisfaction with Trip and Wildlife Experiences

Recreationists' overall satisfaction with their 1984 trip to Northern New York was very high. Satisfactions with wildlife experiences were lower, particularly for the Disinterested type, but the majority were satisfied. Lower satisfaction ratings for wildlife were accounted for primarily by greater proportions of recreationists giving "neutral" responses (16% of Enthusiast types and 42% of Disinterested types). Recreationists were neutral toward or dissatisfied with their wildlife experiences when they failed to see or hear wildlife to the degree they wanted or expected and when some quality of the experience, unrelated to quantity of wildlife, was dissatisfying.

Wildlife-related Program and Information Preferences

Two determinations that should precede the implementation of a program to establish or increase wildlife-related opportunities are: (1) an appraisal of the demand that exists for such a program; and (2) an identification of the kinds of opportunities desired by the public.

To provide information on the demand for wildlife programs generally, recreationists were asked to rate the desirability of several possible additions or improvements that could be made in recreation facilities or tourism-related developments in Northern New York. The creation of wildlife observation areas or displays that explain the natural history of various wildlife species was favored by the greatest proportion (over 3/4) of each type. The 2 Enthusiast types were more likely than the Disinterested type to have considered this "very desirable." Most recreationists thought that more retail services and facilities and more amusement and theme parks were undesirable.

Having identified an interest in providing wildlife-related developments, the next step was to determine the demand for increasing deer-related recreational opportunities specifically. The majority of all types favored increasing opportunities for observing and/or learning more about deer in Northern New York (Deer Enthusiasts 78%, Wildlife Enthusiasts 58%, Disinterested 66%). Given the choice between increases in the likelihood that deer will be seen in the wild and the establishment of facilities where visitors can see and learn more about deer, respondents favored the former 3 to 1.

Finally, preferences for specific approaches to increase deer viewing opportunities were sought. Two approaches favored most by the majority of each type of recreationist were: "Locate hiking trails where deer sightings are most likely" and "establish clearings and food plantings to increase the likelihood that deer will be seen from certain roads." Even respondents who favored the establishment of facilities where visitors could see and learn more about deer were as likely, or more likely in some cases, to desire these 2 more natural approaches vs. others such as interpretive centers or enclosed areas where deer could be photographed. The majority of recreationists indicated that the best way for the DEC to reach them with information about recreation opportunities in Northern New York would be through direct mail.

Results of On-Site Interviews

The presence of wildlife was not mentioned by any of the 24 people interviewed at recreation sites as a factor contributing to their decisions to visit Northern New York. Reasons cited most often were: traditionally vacation in Northern New York, convenient travel distance, and appealing setting for spending time with family and/or friends. Other than fishing, participation in wildlife-related activities was rarely expressed, and interviewees' trip satisfactions or dissatisfactions were not a result of their wildlife experiences. Most indicated that seeing wildlife added to the trip but was unimportant to the success of the trip or to their intentions to return to Northern New York. Even the few who expressed disappointment at seeing fewer animals than expected would not as a result alter future intentions to visit the region.

Resident Survey

Most residents were Deer Enthusiasts (75% or more), about 15% were classified as Wildlife Enthusiasts, and 9% or less were Disinterested. Because so few respondents were in the Wildlife Enthusiast and Disinterested categories, the results that follow refer only to permanent and seasonal residents in the Deer Enthusiast type. These respondents will be referred to as Landowner Deer Enthusiasts (LDE's).

LDE's felt that solitude/rejuvenation and nature were both important to their recreational experiences in Northern New York, with solitude/rejuvenation being an extremely important feature of their recreational experiences. Social experiences, achievement/challenge, and facilities/attractions were also considered important, but less so. All of the specific experiences comprising the nature component also played an important role in activity participation. Seeing or hearing wildlife was the most important experience; seeing mountains was least important. All LDE's wanted to see deer, with about 4/5 mentioning deer as their most preferred animals.

Participation in wildlife observation/photography was moderate, with less than 40% of LDE's participating. Deer were among the most frequently seen or heard animals in Northern New York in 1982-83. Expectations of deer sightings in 1984 were equal to or greater than expectations of seeing or hearing most of the other species.

Satisfaction with Recreation and Wildlife Experiences

Most LDE's were satisfied with their 1984 recreational experiences in Northern New York. Satisfaction ratings for their wildlife experiences were also high. LDE's with neutral or negative wildlife satisfaction ratings attributed these to having had fewer encounters with wildlife than they had hoped. A surprising finding, unlike the relationship described for recreationists, was that there were no significant differences in the wildlife satisfaction ratings of those who did vs. did not observe deer in 1984.

Wildlife-related Program and Information Preferences

The creation of wildlife observation areas or displays was the type of recreation facility or tourism-related service most preferred for development in Northern New York. Several other developments not related to wildlife were also desirable to respondents, such as making highways more scenic, creating more hiking trails or boat launch areas, and providing more information about recreation opportunities. Like the nonresident recreationists, few LDE's preferred more retail and service facilities or amusement parks.

Landowners expressed a range of preferences for increasing opportunities to observe deer and/or learn more about deer in Northern New York. Over 1/2 of the permanent LDE's and over 40% of seasonal LDE's favored increasing the likelihood that deer will be seen in the wild, while about 1/2 of the seasonal LDE's would prefer that nothing be done to increase such opportunities. Of those who desired increased opportunities for viewing deer, the majority of both permanent and seasonal LDE's desired that deer be seen in the wild. More permanent than seasonal LDE's desired facilities for observation.

The specific approach most preferred by the greatest proportion of those who would like to increase opportunities was to establish clearings and food plantings to improve the chance of seeing deer from certain roads. Other popular approaches were locating hiking trails where deer sightings would be most likely and establishing areas where deer could be photographed. More seasonal than permanent LDE's preferred interpretive centers.

LDE's expressed a desire for DEC to provide them with information about recreation opportunities in Northern New York either directly through the mail or indirectly through radio, television, or newspaper advertisements.

CONCLUSIONS

Three conclusions that summarize the study findings are: (1) interest in the deer resource of Northern New York is widespread among people who live and recreate in the region; (2) the deer resource is only one of several important components in the recreational experience of visitors and residents of Northern New York; (3) the potential exists to increase recreationists' and landowners' interests in deer while simultaneously serving the broader objectives of deer management in Northern New York.

The relative size of the Deer Enthusiast type among respondents is evidence that wildlife and deer are of interest to nonconsumptive recreationists visiting Northern New York and, particularly, to landowners residing permanently or seasonally in the region. Nevertheless, respondents indicated that wildlife and deer were but one important aspect of their recreation experiences. Recreationists in the Deer Enthusiast type based their decisions to visit Northern New York on more factors than just the presence of natural features; in fact, over 1/2 felt that other factors weighed more heavily on their decision.

Demand exists for expanding the public's contact with wildlife and deer. Most Deer Enthusiasts favored the creation of wildlife observation areas or displays that explain the natural history of various wildlife species. Most recreationists and permanent residents and 1/2 of the seasonal residents who were Deer Enthusiasts favored increasing interactions with deer specifically, although they were much more supportive of increasing the likelihood that deer will be seen in the wild vs. establishing facilities where deer could be observed and more could be learned about them. Popular approaches for increasing sightings in the wild included (a) establishing clearings and food plantings to increase the likelihood that deer will be seen from certain roads and (b) locating hiking trails where deer sightings will be most likely. Some support also was expressed for establishing areas where deer could be photographed, opening interpretive centers that would explain the natural history of deer in Northern New York, and distributing printed information about deer.

Interest in deer-related opportunities would probably extend to many Wildlife Enthusiasts as well. One of the main differences between Deer Enthusiasts and Wildlife Enthusiasts was that the latter group tended to prefer

the more uncommon species associated with Northern New York such as moose, eagles, bobcat, loon, coyote, etc. However, there is no reason to believe that Wildlife Enthusiasts who expressed a desire for increased opportunities to observe and/or learn more about deer (as more than 1/2 did) would not take advantage of any opportunities that were created.

It is certainly possible to accommodate nonconsumptive recreationists' interest in deer and simultaneously serve broader deer management programming needs. This might be accomplished by the establishment of demonstration areas that could provide a setting for DEC to implement and evaluate the approaches favored by nonconsumptive recreationists. By incorporating education into the demonstration area, a wide range of educational objectives could be addressed and a variety of publics beyond nonconsumptive recreationists, such as consumptive recreationists and schoolchildren, could be reached. Any positive publicity generated by these areas could serve as an inducement for cooperation by private landowners, such as commercial forestland owners. Publicity for these areas could be undertaken not only by DEC but also by the NYS Department of Commerce, local chambers of commerce, the Adirondack Park Agency, and the NYS OPRHP.

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FINAL REPORT

STATE: New York

PROJECT NO.: W-146-R-11

PROJECT TITLE: Public Attitudes Toward Wildlife and Its Accessibility

STUDY NUMBER AND TITLE: VIII - Identifying Attitudes and Values Toward Species and Their Management

STUDY OBJECTIVE: To discern, specific to key public segregation, the attitudes held toward species traditionally associated with selected values or costs, the compatibility and effectiveness of management of those species, and the public's satisfaction with the Bureau of Wildlife's efforts to manage those species.

JOB NUMBER AND TITLE: VIII-8 - Recreationists' Attitudes Toward Management of Deer in Northern New York

JOB OBJECTIVE: To determine recreationists' attitudes toward management of white-tailed deer in northern New York.

JOB DURATION: 1 April 1984-30 June 1986

ABSTRACT

The purpose of this study was to determine the importance of deer in the recreational experiences of people visiting or residing in Northern New York, and to determine the kinds of facilities and services that would enhance their enjoyment of the deer resource while recreating in Northern New York. Mail questionnaire surveys of nonresident recreationists and landowners were conducted in 1985. About one-half of the nonresident recreationists were deer enthusiasts, one-third were general wildlife enthusiasts and one-fifth were disinterested in wildlife. Most residents were deer enthusiasts (75%), 15% were wildlife enthusiasts and the rest were disinterested in wildlife. Three conclusions summarize the findings: (1) interest in the deer resource of Northern New York is widespread among people who live and recreate in the region; (2) the deer resource is only one of several important components in the recreational experience of visitors and residents of Northern New York; (3) the potential exists to increase recreationists' and landowners' interests in deer while simultaneously serving the broader objectives of deer management in Northern New York. Most deer enthusiasts favored increasing the likelihood that deer will be seen in the wild vs. establishing facilities where deer could be observed and more could be learned about them. Popular approaches for increasing sightings in the wild included (a) establishing clearings and food plantings to increase the likelihood that deer will be seen from certain roads and (b) locating hiking trails where deer sightings will be more likely. Some support also was expressed for establishing areas where deer could be photo-

graphed, opening interpretive centers that would explain the natural history of deer in Northern New York, and distributing printed information about deer. It seems possible to accommodate nonconsumptive recreationists' interest in deer and simultaneously serve broader deer management programming needs. This might be accomplished by the establishment of demonstration areas that could provide a setting for DEC to implement and evaluate the approaches favored by nonconsumptive recreationists. By incorporating education into the demonstration area, a wide range of educational objectives could be addressed and a variety of publics could be reached. Any positive publicity generated by these areas could serve as an inducement for cooperation by private landowners. Publicity for these areas could be undertaken not only by DEC but also by the NYS Department of Commerce, local chambers of commerce, the Adirondack Park Agency, and the NYS OPRHP.

INTRODUCTION

Background

This report is the third from a 4-part series of studies specified by the New York State Department of Environmental Conservation (DEC) in the Northern New York Strategic Plan for Deer Management. The plan established the direction that the DEC believed would be needed to manage the deer resource in the Northern Zone (NZ) of New York. The goal of the plan was to provide diversified recreational use of white-tailed deer in each deer range of the NZ, consistent with long-term ecological stability and social constraints. (See Decker et al. [1983] for a discussion of the events leading up to the inception of the plan and for more information about the plan itself.)

The primary purpose of the first 2 studies was to identify attitudes toward several management issues related to deer hunting in the NZ. The audience in the first study was NZ deer hunters (Decker et al. 1983, Smolka et al. 1983). The second study surveyed the leaders of organizations representing a variety of interests in the NZ deer resource (Smolka and Decker [in press], Smolka et al. 1985). Of particular interest was organization leaders' attitudes toward management issues related to deer hunting. (Refer to the literature cited above for information about the results of these studies.)

While the Northern New York Strategic Plan for Deer Management emphasizes deer hunting for population management and recreation purposes, it also stresses the interests of nonconsumptive users (both residents and nonresidents) of the NZ deer resource. However, because little is known about the extent or nature of utilization and benefits associated with nonconsumptive deer use in the NZ, it is difficult for the DEC to develop management

objectives, programs, and program evaluation criteria to reflect the needs of this public.

It was recognized that the potential existed for deer in the NZ to play a role in the nonconsumptive recreation experience. The NZ has been a traditional high-use area for outdoor recreation in New York. The following are 1980 estimates of participation in a variety of outdoor activities in a geographic area that includes almost all of the NZ: 279,000 picnickers; 275,000 swimmers; 179,000 hikers; 159,000 boaters; 145,000 campers; 139,000 fishermen; and 260,000 people involved in simple relaxation (New York State Office of Parks, Recreation, and Historic Preservation 1983). These recreationists spent nearly 17 million days participating in the activities listed. Both the number of participants and the number of days they will devote to these activities are projected to increase by 1/3 by the turn of the century. The potential for greater utilization of the NZ for outdoor recreation was evidenced by the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, which reported that 9.5 percent (1.5 million people) of people age 16 and older in New York State took a trip for the primary purpose of observing, photographing, or feeding wildlife and 36.4 percent (5.8 million people) took trips for which these activities were of secondary importance (USDI, Fish and Wildlife Service and USDC, Bureau of the Census 1982). It is clear that nonconsumptive use of wildlife is a common practice among New York's citizens.

Study Area

The NZ of New York consists of 3 major deer ranges (Figure 1). The Central range includes the core area of the Adirondacks and the Tug Hill

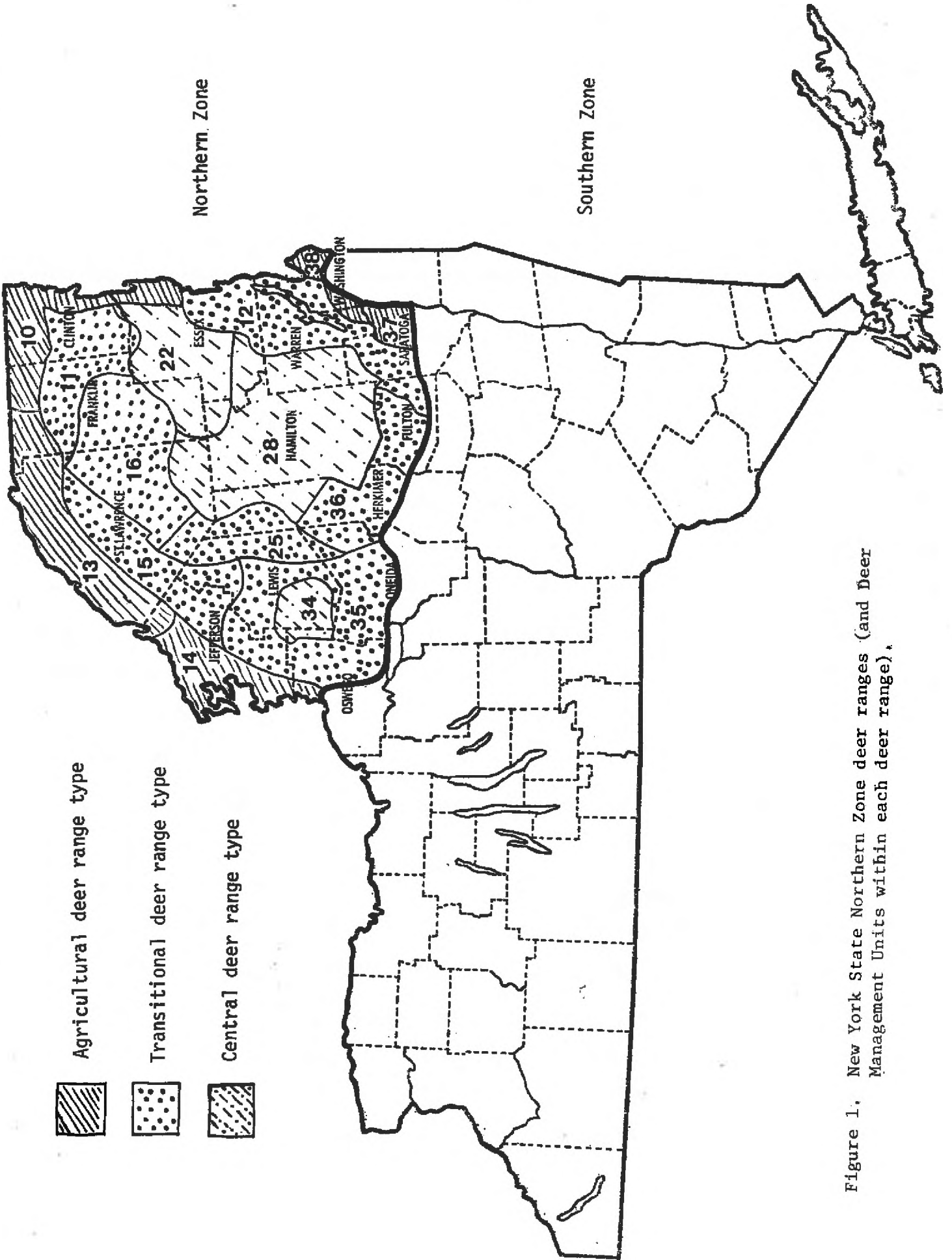


Figure 1. New York State Northern Zone deer ranges (and Deer Management Units within each deer range).

Plateau. Some State-owned public lands in this range were designated as Forest Preserve by an amendment to the State Constitution in 1890, thereby prohibiting forest management practices on these lands. Legislation passed in 1972 regulated the use of private land within the Forest Preserve area, further limiting forest management practices that could enhance deer habitat. These regulations have had a marked impact on land use and vegetation characteristics. This range has a low human population density and limited road access. DEC has determined that deer populations within this range cannot be controlled by hunting, but the area is well-suited for recreational hunting. A variety of approaches might be used to provide maximum recreational opportunities.

The Transitional range surrounds the Central range and consists of fairly accessible, heavily forested, and predominately private lands where deer can be controlled more readily by hunting. In this range appropriate deer management could include approaches that would serve to meet recreational interests of people, biological needs of deer, and prevent undue damage to private property by deer. Potential management must consider the need to regulate numbers of deer taken to insure that overharvests of female deer do not occur.

The Agricultural range surrounds the first 2 and consists of rolling farmland, including the Ontario-St. Lawrence, Lake Champlain, and Black River lowlands. Deer populations in this range are already being controlled by means other than legal hunting, such as illegal deer kill, motor vehicles, and dogs. DEC has suggested that management strategies here should reflect the need for deer population growth in some localities, while management resulting in a constant population level would be appropriate in others.

Survey Audience

How an individual assesses the importance of the NZ deer resource for nonconsumptive recreation will vary according to residence location (i.e., NZ resident or visitor from the Southern Zone). For example, consider the decision to go hiking for the express purpose of observing deer. This is a minor decision for the NZ resident, involving little in the way of costs (e.g., travel time, expenses, and foregone opportunities). On the other hand, this would constitute a major decision for many SZ residents who would have to weigh the costs and benefits more carefully (travel time and expenses would be greater, the use of vacation time would mean foregone opportunities, etc.). Thus, the decision to undertake the same activity involves different consequences for NZ vs. SZ residents.

For this reason, 2 general audiences were studied: residents of the NZ, both permanent and seasonal, and SZ residents who visited the NZ. This segmentation necessitated the development of slightly different survey instruments for each audience. Identical questions were used on both surveys whenever possible to allow comparisons between the 2 audiences.

There were minor differences between the 2 questionnaires in the wording of some questions or inclusion of a question on one questionnaire but not the other. The greatest difference was due to questions about recreational experiences using different time-frame referents for each audience. SZ recreationists were asked to describe the experiences that occurred on the last recreational trip they made to the NZ between 1 July and 15 October 1984. This distinction was made so that those in this audience who made more than 1 trip during the time period could concentrate their answers on a specific trip rather than attempt to synthesize experiences from all of their trips. This

assumes that each decision to visit the NZ involves a range of attitudes and beliefs about the trip, potentially including attitudes and beliefs about the NZ deer resource (Fishbein and Ajzen 1975).

This assumption is less appropriate to recreation participation decisions made by residents of the NZ. Many of the participation decisions made by this audience are likely to be "spur-of-the-moment" or reflect an attempt to satisfy a specific desire, owing to the greater opportunity residents have of participating in activities near their home. Therefore, this audience was asked to reflect on all of their NZ recreational experiences in 1984. This assumes that a resident's interest in the deer resource may not be reflected by any one recreational outing, but it should be reflected when activity over an entire year is considered.

Residents were not asked to differentiate their consumptive vs. nonconsumptive recreational expectations, experiences, and satisfactions because of the concern that respondents might have difficulty doing so and the recognition that consumptive activities usually have nonconsumptive components associated with them. Thus, the survey of NZ residents explores their all-around outdoor recreation participation and interest in deer while the nonresident survey concentrates specifically on nonconsumptive recreation participation and interest in deer.

Study Objectives

The first objective of this survey was to estimate the proportion of NZ residents and SZ nonconsumptive recreationists who considered deer an important component of their recreation experience. The second objective was to describe the role that the nonconsumptive use of wildlife played in the survey

audiences' overall NZ recreational experience (i.e., the importance of deer vis-a-vis other features of the experience). A third objective was to determine the potential demand for various facilities or services that would enhance NZ residents' and SZ recreationists' nonconsumptive use of the NZ deer resource.

A description of the extent and nature of the nonconsumptive recreational use of the NZ deer resource should aid the DEC in assessing the degree to which nonconsumptive recreational interests should be incorporated into the deer management program. Also, the DEC should be able to determine the degree to which the provision of nonconsumptive recreational opportunities identified by the study dovetails with deer management proposals already under consideration.

Deer Preference Typology

A Deer Preference Typology was developed to identify and analyze the characteristics of respondents expressing various levels of interest in NZ wildlife in general and in NZ deer in particular. This approach placed respondents into a Typology group based upon their responses to 2 hierarchically-ordered questions. The first question determined the degree to which seeing or hearing wildlife influenced SZ recreationists' decisions to visit the NZ on their trip or the degree to which NZ residents looked forward to seeing or hearing wildlife when they participated in outdoor recreation activities. The second question asked respondents to list the 3 wild animals they most liked to see or hear in the NZ.

For the purposes of this study, 3 orientations toward deer and wildlife were identified beforehand, hence 3 Deer Preference Types were created (Figure 2). SZ recreationists in the "Deer Enthusiast" type felt that the experience

Importance of Seeing or Hearing Wildlife to Decision to Visit the NZ on Trip (for SZ Recreationists) OR to Recreation Activities (for NZ Residents)

Deer as 1 of 3 Preferred Species

Type

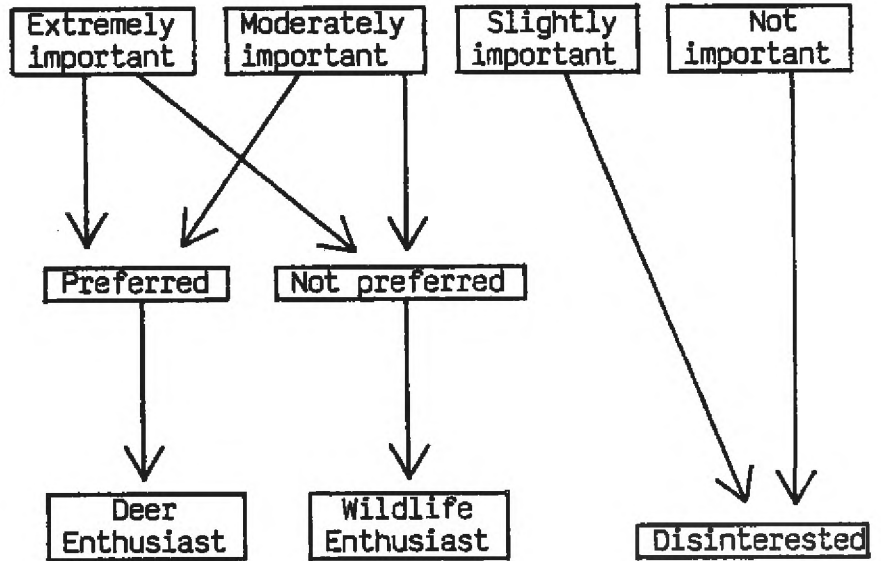


Figure 2. Flow chart of responses to questions comprising the Deer Preference Typology.

of seeing or hearing wildlife was extremely or moderately important to their decision to visit the NZ and mentioned deer as 1 of the 3 wild animals they most liked to see or hear again in the NZ. NZ residents in the "Deer Enthusiast" type felt that the experience of seeing or hearing wildlife was extremely or moderately important to their outdoor recreation activities in the NZ and mentioned deer as 1 of 3 wild animals they most liked to see or hear in the NZ. SZ recreationists and NZ residents in the "Wildlife Enthusiast" type also rated wildlife experiences as extremely or moderately important, but did not mention deer as 1 of 3 preferred kinds of wildlife. Respondents in the "Disinterested" type considered wildlife experiences to be of slight or no importance; thus, their preferences for individual wildlife groups or species were not considered in the categorization.

The use of this typology aids in meeting the study objectives. The extent of interest in deer can be ascertained from the proportion of respondents in each type. By comparing and contrasting the characteristics of each type, it is possible to describe the role that deer play in the NZ recreational experiences of those for whom deer are important and to provide insight into the potential for increasing interest in deer among those for whom wildlife was generally important but deer was not a preferred species.

Report Format

The remainder of the report is in 3 sections. The first section discusses the procedures and results of the survey of SZ recreationists' nonconsumptive interest in deer (hereafter referred to as the recreationist survey); findings from personal, on-site interviews conducted with SZ recreationists will be incorporated into this discussion. The second section presents the procedures

and results of the survey of NZ residents' interest in deer (hereafter referred to as the resident survey). Conclusions and recommendations based on a synthesis of findings for both audiences are presented in the third section.

SECTION I

SURVEY OF RECREATIONISTS' NONCONSUMPTIVE INTEREST IN DEER:

PROCEDURES AND RESULTS

PROCEDURES

Sample Selection

Information concerning recreationists' nonconsumptive deer-related interests was collected through a self-administered mail questionnaire survey. A sampling methodology was devised to obtain input from a cross-section of SZ residents who had made a trip to the NZ between 1 July and 15 October 1984 for recreation or leisure purposes. These recreationists represented users of 4 different types of services or facilities: (1) campers at DEC campgrounds and Office of Parks, Recreation, and Historic Preservation (OPRHP) state parks; (2) campers at private campgrounds or users of rental cottages; (3) users of trailhead parking and public boat-launch facilities; and (4) hotel/motel patrons. The goal was to select 140 users of each of these services or facilities in each range; 1/2 of the 140 were to represent summer users, the remaining 70 early autumn users. For reasons that will be discussed, the actual sample size sometimes fell short of the goal. When this occurred, an attempt was made to make up the shortfall by oversampling recreationists from the other season or from a different range.

The sampling methodology differed somewhat for each type of user and for the summer vs. autumn season. A description of each methodology can be found in Appendix A.

On-Site Interviews

Project W-146-R staff conducted 24 personal interviews with nonresident recreationists in conjunction with the summer sampling effort. The interviews sought insights into the role wildlife and deer played in the recreational experience, which aided in questionnaire design. In addition, information from

the interviews provided a broader perspective for interpreting the questionnaire data.

Interviews were conducted primarily with campers at state campgrounds and state parks throughout the NZ; a few interviews were conducted with hikers/backpackers/campers at the Adirondack Loj, a facility operated by the Adirondack Mountain Club that provides access to the High Peaks area of the Central Adirondacks. Interviewees were asked to furnish the following information: (1) trip-related data; (2) the positive and negative aspects of the NZ that were considered in their decision about vacation destination; (3) satisfactions and dissatisfactions related to the trip; and (4) wildlife and deer-related expectations, experiences, satisfactions, and preferences. No attempt was made to probe interviewees for information about wildlife or deer unless it became readily apparent that they were not going to provide such information without probing. In this way, the importance of wildlife and deer in relation to other factors contributing to the NZ recreational experience could be gauged more reliably.

Population Extrapolations for Campers at DEC State Campgrounds and OPRHP State Parks

Because the total number of 1984 campers at DEC state campgrounds and OPRHP state parks is recorded, it is possible to extrapolate findings from the sample respondents to the entire camper population. See Appendix B for a discussion of the population expansion procedure.

Questionnaire Development and Implementation

The recreationist questionnaire was developed by Project W-146-R staff and reviewed by DEC staff. Our standard mailing procedure, which uses 4 mailings

permitting up to 3 follow-up contacts with nonrespondents, was followed; the recreationist questionnaire and cover/reminder letters can be found in Appendices C and D, respectively. The mailing chronology was as follows:

- 22 April 1985 - cover letter and questionnaire;
- 1 May 1985 - reminder letter to nonrespondents;
- 13 May 1985 - cover letter and questionnaire to nonrespondents;
- 22 May 1985 - reminder letter to nonrespondents.

RESULTS

Response Rate

The initial sample of 1,530 resulted in 37 nondeliverable questionnaires, producing an adjusted sample size of 1,493. Of these, 1,078 were returned (72.2 percent). Forty-seven respondents (3.1 percent) indicated that they did not participate in recreational activities in the NZ in 1984 and therefore did not complete the questionnaire and 8 (0.5 percent) questionnaires were returned uncodeable, resulting in 1,023 codable questionnaires.

A higher proportion of public and private campground users and hiking trail/boat launch users than hotel/motel users returned usable questionnaires (about 70 percent vs. 59 percent, respectively) and a higher proportion of Central range recreationists vs. recreationists in the 2 other ranges returned questionnaires (81 percent vs. about 60 percent, respectively) (Appendix E).

Extent and Nature of Recreationists' Nonconsumptive Interest in Wildlife and Deer

One-half of the recreationists were classified as Deer Enthusiasts and nearly 1/3 were in the Wildlife Enthusiast type; 1/5 were Disinterested in wildlife (Table I-1).

Table I-1. Distribution of recreationists among Deer Preference Types.

Deer Preference Type	Percent	N
Deer Enthusiasts	49	429
Wildlife Enthusiasts	30	258
Disinterested	<u>21</u>	<u>182</u>
Total	100	870

About 90 percent of both Enthusiast types indicated that the presence of natural features (lakes, mountains, forests, wildlife, etc.) was a reason for their decision to spend leisure time in Northern New York (Table I-2), with about 1/2 considering it to have been the most important reason. The Disinterested type was less likely than the other 2 types to have travelled to Northern New York because of the presence of natural features, yet it was still an important reason for a majority of them. More of the Disinterested type than the 2 Enthusiast types were there because the region was within easy travel distance or to visit friends or relatives who lived in Northern New York. The availability of recreation activities (wildlife observation being one of many) was listed by >80% of the 2 Enthusiast types as a reason for their Northern New York trip; it was the reason given by the greatest percentage of the Disinterested type (76%). One-quarter of the Enthusiast types rated availability of recreation activities as their most important reason for the trip. The majority of recreationists reported that they traditionally vacationed in Northern New York.

Another indication of the importance recreationists attached to natural features (including wildlife) was provided by their ratings of various potential experiences that influenced their decision to take their trip. Nature (including viewing mountains, rivers, or lakes; seeing wild flowers, plants, or trees; seeing, hearing wildlife) and solitude/rejuvenation were the 2 experiences that influenced the greatest proportion of the 2 Enthusiast types (Table I-3).

The importance recreationists attached to experiencing wildlife vs. other features of nature was examined. The 2 Enthusiast types felt that the opportunity to experience each of the natural features influenced their

Table I-2. Recreationists' reasons for spending leisure time in Northern New York in 1984, by Deer Preference Type.

Reasons	Deer Enthusiasts (n=412)	Wildlife Enthusiasts (n=251)	Disinterested (n=177)
	Percent		
The presence of natural features	92	92	71
The availability of recreation or leisure activities	81	83	76
Traditionally vacationed or recreated in Northern New York	65	59	55
It was within easy travel distance	54	47	67
To spend time at a camp, second home, etc., owned by myself, friends, or relatives	22	16	21
To visit friends or relatives who live in Northern New York	12	13	23

Table I-3. Importance of general kinds of experiences to recreationists' decisions to visit Northern New York in 1984, by Deer Preference Type.

General Experience/ Importance Ratings	Deer Enthusiasts (n=408)	Wildlife Enthusiasts (n=250)	Disinterested (n=178)
	Percent		
<u>Nature</u>			
Extremely important	76	81	40
Moderately important	21	18	38
<u>Solitude/Rejuvenation</u>			
Extremely important	75	75	57
Moderately important	21	21	25
<u>Facilities/Attractions</u>			
Extremely important	59	53	48
Moderately important	29	26	35
<u>Achievement/Challenge</u>			
Extremely important	20	23	7
Moderately important	31	32	18
<u>Social</u>			
Extremely important	20	19	30
Moderately important	24	25	20

decision to recreate in Northern New York. "Seeing rivers or lakes" was the most important experience, with "seeing, hearing wildlife" and "seeing mountains" being of considerable, though lesser, importance (Table I-4). The Disinterested type was less interested than the Enthusiast types in experiencing each of the natural features. Eighty-three percent of the Disinterested type felt that seeing, hearing wildlife was only slightly important.

By definition, all of the Deer Enthusiast type listed deer as 1 of their 3 most preferred kinds of wildlife, with about 1/2 of this type listing deer as the most preferred species (Table I-5). Their second wildlife preference was bear, preferred by almost 1/2 of the Deer Enthusiasts. Wildlife Enthusiasts were more likely than Deer Enthusiasts to prefer encounters with waterfowl, raptors, large mammalian predators, and moose. Over 2/3 of the Disinterested type mentioned deer as a preferred species, suggesting that they may be attracted to programs related to deer if their interest in wildlife could be heightened.

Activity Participation

Over 80% of all recreationists spent their time relaxing (Table I-6). However, 11% or less indicated relaxation as the most influential factor of their Northern New York trip or the most enjoyable part of it (Figure I-1). Camping and boating/canoeing were 2 activities participated in by the greatest percentage of the Enthusiast types, while sightseeing was the activity participated in by many of the Disinterested type. The most enjoyable activities for all recreationists were camping and fishing. Typically,

Table I-4. Importance of specific nature experiences to recreationists' decisions to visit Northern New York in 1984, by Deer Preference Type.

Specific Experience/ Importance Rating	Deer Enthusiasts (n=429)	Wildlife Enthusiasts (n=258)	Disinterested (n=182)
	Percent		
<u>Seeing Rivers or Lakes</u>			
Extremely important	72	72	37
Moderately important	25	23	33
<u>Seeing, Hearing Wildlife</u>			
Extremely important	54	54	0
Moderately important	46	46	0
<u>Seeing Mountains</u>			
Extremely important	52	56	22
Moderately important	34	26	31
<u>Seeing Wild Flowers, Plants, or Trees</u>			
Extremely important	44	47	5
Moderately important	39	37	19

Table I-5. Recreationists' preferences for the kinds of wildlife they would like to see or hear, by Deer Preference Type.

Kinds of wildlife	Deer Enthusiasts (n=429)	Wildlife Enthusiasts (n=259)	Disinterested (n=182)
		Percent	
Deer	100	0	69
Bear	47	43	41
Waterfowl	31	49	31
Small mammals	26	27	31
Raptors	15	39	20
Beaver	21	23	25
Coyote, bobcat, fox	14	38	17
Songbirds	11	13	19
Other birds (grouse, heron, etc.)	10	12	13
Other wildlife (including moose)	12	35	18

Table I-6. Recreationists' activity participation on their 1984 Northern New York trip, by Deer Preference Type.

Activities	Deer Enthusiasts (n=421)	Wildlife Enthusiasts (n=256)	Disinterested (n=180)
	Percent		
Relaxing	83	81	80
Camping	73	74	58
Boating/Canoeing	59	66	47
Sightseeing/Visiting Attractions	59	50	62
Hiking	58	62	34
Swimming	50	44	53
Observing/Photographing Wildlife	53	58	23
Fishing	50	48	40
Walking/Jogging	44	30	39
Observing/Photographing Nature (other than wildlife)	37	43	26
Visiting Friends/Relatives	20	18	27
Backpacking	17	18	8
Games/Sports	14	13	21
Bicycling	9	10	7
Hunting	11	3	2
Other	6	5	5

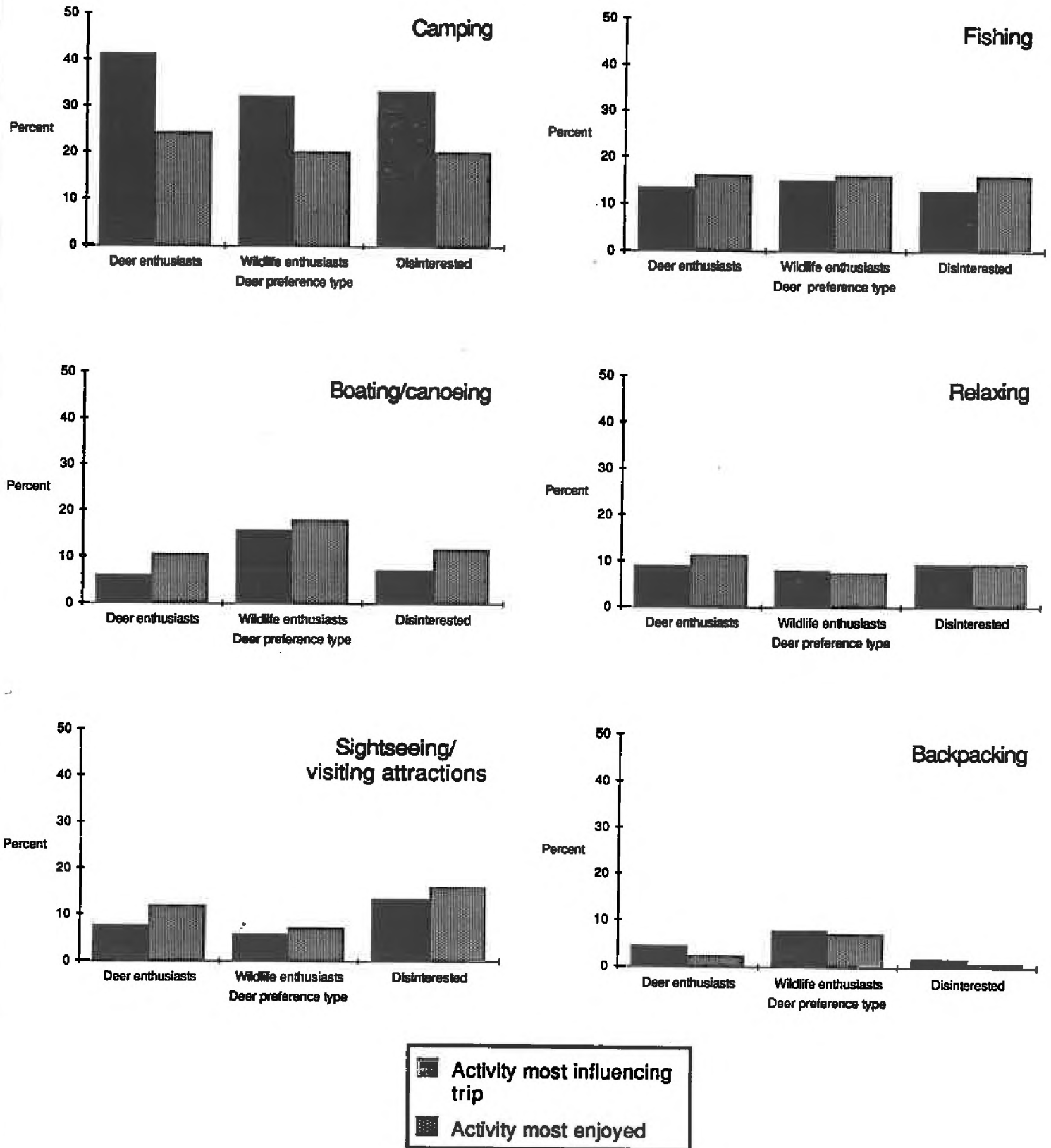


Figure I-1. The six activities that most influenced recreationists' decisions to visit Northern New York and the ones most enjoyed, by deer preference type.

recreationists enjoyed most the activity that had the greatest influence on their decision to visit Northern New York (Figure I-1).

Over half of the Enthusiast types observed or photographed wildlife (Table I-6). The extent to which this participation was intentional vs. incidental (and the extent to which incidental sightings/photographic opportunities were anticipated) is unknown. Few recreationists considered wildlife observation/photography to be the activity that most influenced their decision to visit Northern New York (less than 3% of all recreationists). In addition, wildlife experiences probably will not be a major factor in future decisions to revisit this region because wildlife observation/photography was listed by 3% or less of the recreationists as the activity most enjoyed. Nevertheless, wildlife recreation participation reports indicate that the majority of Enthusiasts had direct involvement with the wildlife resource. People in the Disinterested type, on the other hand, were less likely to have participated in wildlife observation/photography, or in many of the more "backcountry" activities (e.g., camping, boating/canoeing, hiking, etc.).

Wildlife Observation

Deer sightings have not been rare occurrences for recreationists in Northern New York. About 2/5 of all types reported that they had seen a deer on a previous trip to Northern New York during 1982-83 (Figure I-2). In fact, previous deer sightings were reported with similar frequency as sightings of other animals.

Slightly fewer, though still about 1/3, of all types expected to see deer on their 1984 trip. This level of expectation was nearly as high as that for other animals reported by the Deer Enthusiast and Disinterested types. Higher

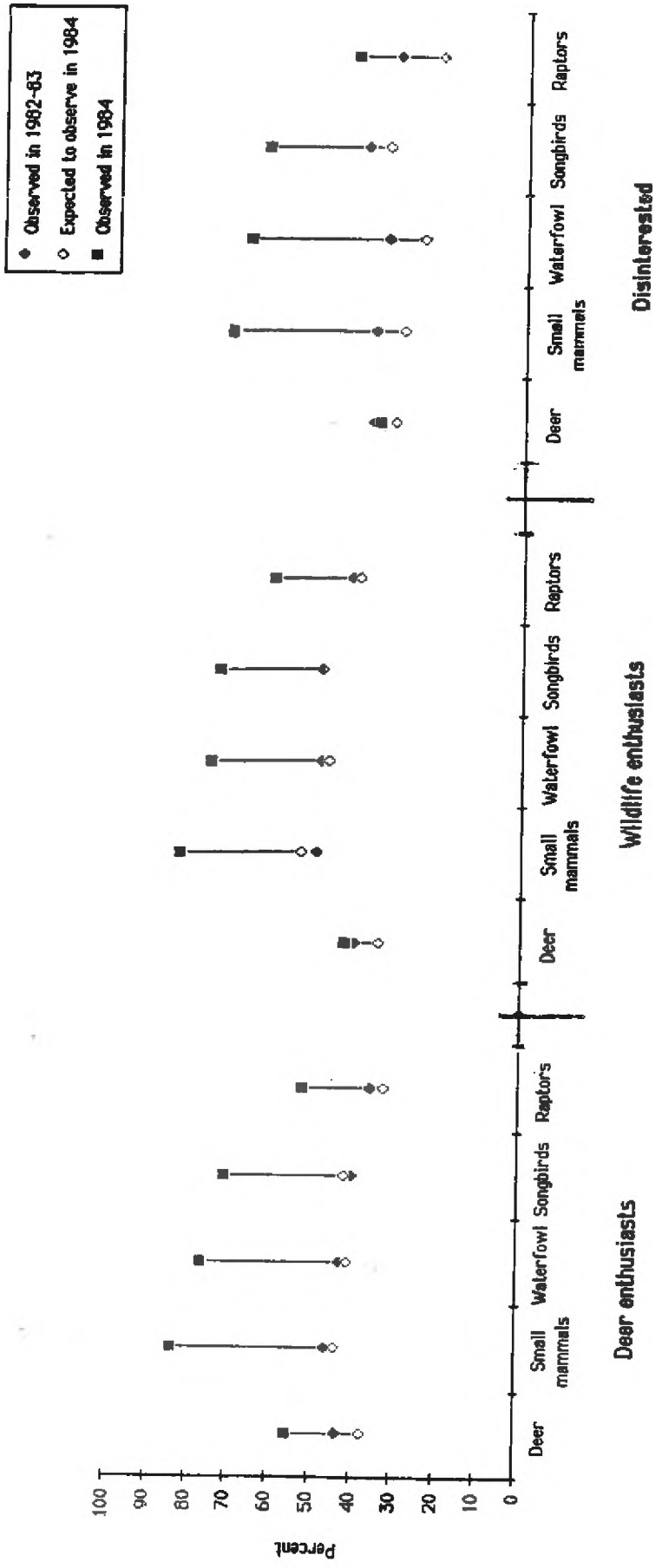


Figure I-2. Recreationists' observation of deer and other wildlife in 1982-83, in 1984, and expectation of seeing them in 1984.

proportions of Wildlife Enthusiasts expected to see small mammals, songbirds, or waterfowl than deer.

The effect of recreationists' experience of previous wildlife sightings on their expectations of future sightings was examined. Deer and Wildlife Enthusiasts who had seen a deer on a previous trip during 1982-84 were almost evenly divided between expecting vs. not expecting to see deer on their 1984 trip; the Disinterested type was more likely not to expect vs. expect to see deer, even though they had seen one previously. About 3/4 of those in all types who had not sighted deer previously indicated that they had not anticipated seeing deer in 1984.

More Deer Enthusiasts saw a deer than anticipated such a sighting on their 1984 trip; expectations and sighting rates were about equal for the other two types (Figure I-2). Compared to deer, other kinds of wildlife including small mammals, songbirds, waterfowl, and raptors were seen by considerably more recreationists. Deer Enthusiasts who anticipated seeing deer were no more likely to have done so than those without such expectations. Sightings for the other 2 types occurred somewhat more frequently for those who expected to see deer.

Satisfaction With Trip and Wildlife Experiences

Recreationists' overall satisfaction with their 1984 trip to Northern New York was very high (Figure I-3). Satisfactions with wildlife experiences were lower, particularly for the Disinterested type, but the majority were satisfied. Lower satisfaction ratings for wildlife were accounted for primarily by greater proportions of recreationists giving "neutral" responses (16% of Enthusiast types and 42% of Disinterested types). Recreationists were

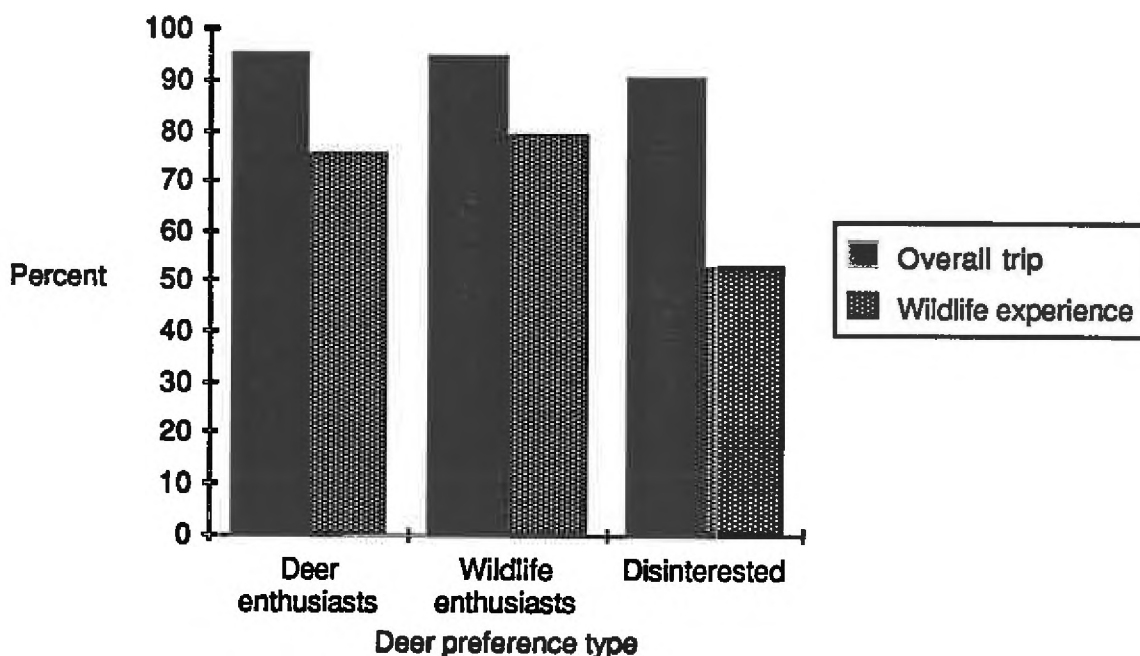


Figure I-3. Percent of recreationists' satisfied with their overall trip experience and wildlife experience on their 1984 Northern New York trip, by Deer Preference Typology.

neutral toward or dissatisfied with their wildlife experiences when they failed to see or hear wildlife to the degree they wanted or expected and when some quality of the experience, unrelated to quantity of wildlife, was dissatisfying (Table I-7). They were also neutral if enjoying wildlife was not an important reason for their trip or if they were not interested in wildlife. Wildlife Enthusiasts and the Disinterested type were neutral if they had no expectations about possible wildlife experiences. The correlations between wildlife satisfaction vs. overall trip satisfaction ratings for all types were weak, although positive, suggesting that trip satisfaction is largely independent of wildlife satisfaction.

Table I-7. Recreationists' reasons for being neutral or dissatisfied with their wildlife experiences on their 1984 Northern New York trip, by Deer Preference Type.

Reasons	Deer Enthusiasts		Wildlife Enthusiasts		Disinterested	
	Neutral	Dissatisfied	Neutral	Dissatisfied	Neutral	Dissatisfied
	(n=61)	(n=32)	(n=39)	(n=13)	(n=65)	(n=8)
	Percent					
Wanted or expected to see or hear wildlife	46	59	33	69	14	37
Took trip for reasons other than wildlife; not interested in wildlife	25	0	23	8	45	13
Had no wildlife expectations	7	3	21	0	21	0
Dissatisfied with some aspect of wildlife experience, but not due to quantity of wildlife	13	19	13	15	8	37

Of special interest is the relationship between recreationists' expectations of sighting deer, whether sightings occurred, and their satisfaction with their wildlife experiences. It was hypothesized that recreationists who had no expectations for sighting deer, but who actually observed deer (Group 1) would report the greatest satisfaction with their wildlife experience. Those who expected to see deer and did (Group 2) would have the next greatest level of satisfaction. Recreationists with no expectations and no actual sightings of deer (Group 3) and those with expectations, but no sightings (Group 4) would have succeeding lower levels of wildlife satisfaction.

Tukey's Multiple Range Test was used to test for significant differences ($p < .05$) in wildlife satisfaction among these four groups (Figure I-4). There was a trend of decreasing satisfaction from Group 1 to Group 4 among the Deer Enthusiasts. However, statistically significant differences were only found between the wildlife satisfactions of those who did versus did not observe deer (Table I-8). These differences in wildlife satisfaction were significant for both Enthusiast types and the Disinterested type. While degree of expectation does seem to influence wildlife satisfaction somewhat, the greatest influence on satisfaction level appears to be whether or not the animal was actually seen. However, sightings of deer or lack of such sightings were no more highly correlated with each type's wildlife satisfaction rating than were sightings or lack of sightings of other wildlife.

Wildlife-related Program and Information Preferences

Two determinations that should precede the implementation of a program to establish or increase wildlife-related opportunities are: (1) an appraisal of

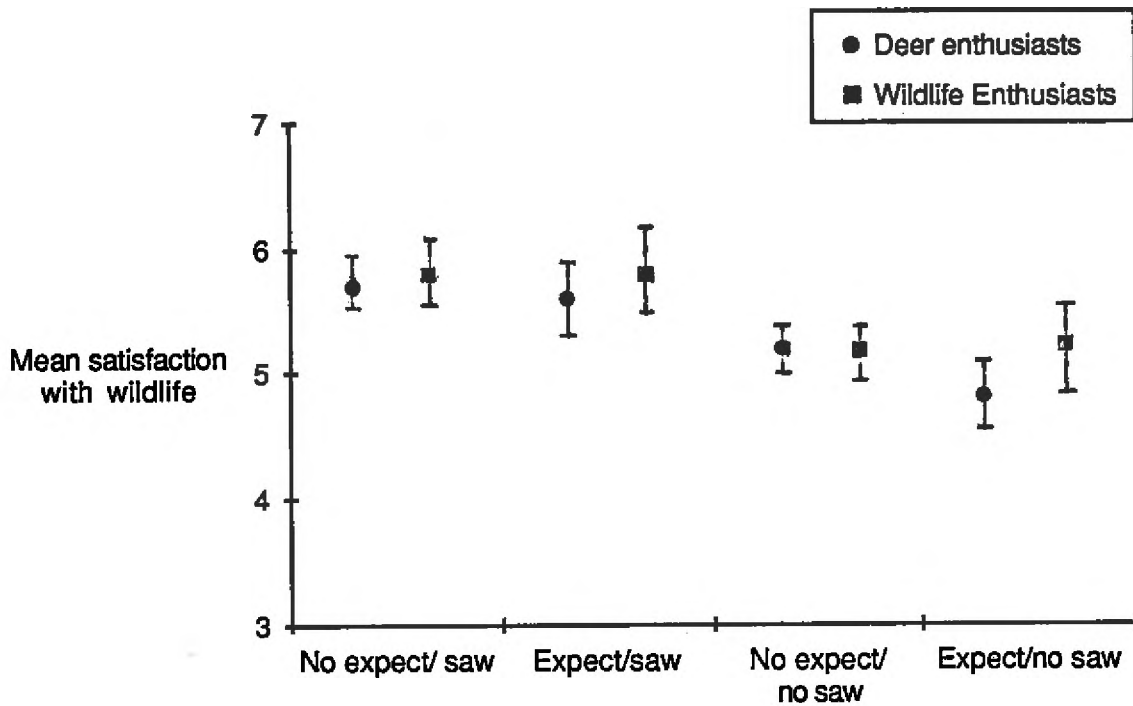


Figure I-4. Recreationists' mean satisfaction (with 95% confidence interval) with their wildlife experience for each deer preference typology, by whether or not they expected and/or actually saw deer.

Table I-8. Recreationists' satisfaction with their wildlife experience by whether or not they saw a deer on their 1984 trip.

Deer Sightings on 1984 trip	Deer Enthusiasts	Wildlife Enthusiasts	Disinterested
	Mean (standard error)		
Saw a deer	5.7 (0.1)	5.8 (0.1)	5.1 (0.1)
Did not see a deer	5.0 (0.1)	5.2 (0.1)	4.7 (0.1)
	(t=5.19, df= 419, P<.05)	(t=3.93, df= 252, P<.05)	(t=2.71, df= 177, P<.05)

the demand that exists for such a program; and (2) an identification of the kinds of opportunities desired by the public.

To provide information on the demand for wildlife programs generally, recreationists were asked to rate the desirability of several possible additions or improvements that could be made in recreation facilities or tourism-related developments in Northern New York. Although most of the additions or improvements were desired by the majority of recreationists, the "creation of wildlife observation areas or displays that explain the natural history of various wildlife species" was favored by the greatest proportion (over 3/4) of each type (Table I-9). The 2 Enthusiast types were more likely than the Disinterested type to have considered this "very desirable." Most recreationists thought that more retail services, facilities, amusement parks, and theme parks were undesirable.

Having identified an interest in providing wildlife-related developments, the next step was to determine the demand for increasing deer-related recreational opportunities specifically. The majority of all types favored increasing opportunities for observing and/or learning more about deer in Northern New York (Deer Enthusiasts 78%, Wildlife Enthusiasts 58%, Disinterested 66%). Given the choice between increases in the likelihood that deer will be seen in the wild and the establishment of facilities where visitors can see and learn more about deer, respondents markedly favored the former choice 3 to 1.

Finally, preferences for specific approaches to increase deer viewing opportunities were sought. Two approaches favored most by the majority of each type of recreationist were: "Locate hiking trails where deer sightings are most likely" and "establish clearings and food plantings to increase the

Table I-9. Recreationists' ratings of very desirable or desirable additions or improvements that could be made in recreation facilities or tourism-related services.

Additions or Improvements	% who thought addition desirable or very desirable		
	Deer Enthusiasts (n=419)	Wildlife Enthusiasts (n=256)	Disinterested (n=180)
Creation of wildlife observation areas or displays	81	80	76
More hiking trails or boat launch areas	75	67	65
More information about recreation opportunities	70	63	72
More campgrounds or picnic areas	66	49	64
Make highways more scenic; create scenic overlooks	56	50	62
More retail and service facilities	19	14	26
More amusement parks, theme parks, etc.	11	6	17

likelihood that deer will be seen from certain roads" (Table I-10). Even respondents who favored the establishment of facilities where visitors could see and learn more about deer were as likely, or more likely in some cases, to desire these 2 more natural approaches vs. others such as interpretive centers or enclosed areas where deer could be photographed.

The majority of recreationists indicated that the best way for the DEC to reach them with information about recreation opportunities in Northern New York would be through direct mail (Table I-11). There was moderate support for information distribution through libraries, campgrounds, magazines, newspapers, radio, or TV advertisements. Few recreationists favored communications through organizations (i.e., DEC, Chambers of Commerce) or information booths.

Characteristics of Recreationists on Trip

Most recreationists spent a considerable amount of time in Northern New York in the past 3 years, with over 2/3 of each type taking 4 or more trips per year to this region (Table I-12). Trip duration averaged about 1 week, with Wildlife Enthusiasts spending slightly more time and the Disinterested type spending slightly less time than Deer Enthusiasts. Regarding their 1984 trip, the majority (between 81 and 85 percent) considered Northern New York their primary trip destination. The deer range within which recreationists spent the greatest amount of time on their trip did not seem to be associated with their deer preferences (Table I-13). The majority of all recreationists spent the greatest time in the Central range.

Little difference was found between recreationist types in group size, i.e., the number of people per party on a trip. About 1/3 of the groups for

Table I-10. Nonresident recreationists' preferred approaches for increasing opportunities to observe and/or learn more about deer in Northern New York, by Deer Preference Type.

Approaches	Deer Enthusiasts (n=320)	Wildlife Enthusiasts (n=146)	Disinterested (n=112)
	Percent		
Locate hiking trails where deer sightings are most likely	66	64	70
Establish clearings and food plantings to increase likelihood deer will be seen from certain roads	59	55	65
Establish areas where deer can be photographed	36	27	48
Open interpretive centers that would explain the natural history of deer in Northern New York	34	37	29
Distribute newsletters, hold seminars to provide more information about deer	25	29	14
Keep deer in viewing areas with a biologist on hand to answer questions	4	4	5

Table I-11. Recreationists' preferences for channels DEC should use to get information about recreation opportunities in Northern New York to them, by Deer Preference Type.

Channels	Deer Enthusiasts (n=384)	Wildlife Enthusiasts (n=228) Percent	Disinterested (n=162)
Information available through the mail	66	57	65
Information available at various locations (libraries, stores, campgrounds, etc.)	16	19	19
Newspaper advertisements	16	17	13
Radio, TV advertisements	13	15	13
Information contained in magazines	10	13	5
Information available through various organizations (DEC, chambers of commerce, etc.)	4	6	4
Information available at information booths	3	3	2

Table I-12. Number of recreational trips made to Northern New York in the previous three years, by Deer Preference Type.

Number of trips	Deer Enthusiasts	Wildlife Enthusiasts	Disinterested
1-3 trips	32	27	30
4-6 trips	16	19	18
7-9 trips	8	12	6
10+ trips	44	42	46
Total: Percent	100.0	100.0	100.0
Mean	11.7	12.9	9.8
Number	421	249	179

Table I-13. Proportion of recreationists within each Deer Preference type, by the Northern Zone deer range in which they spent the greatest amount of time on their 1984 Northern New York trip.

Deer Range Spent the Most Time in	Deer	Wildlife	Disinterested
	Enthusiasts	Enthusiasts Percent	
Agricultural	22	25	30
Transitional	27	25	28
Central	51	50	42
Total: Percent	100.0	100.0	100.0
Number	428	259	182

all types were composed of 2 people and about 2/5 consisted of 4-7 people. There were slightly more male than female recreationists in the groups, regardless of type. Ages of group members among recreationist types also varied little, with the exception that the Disinterested type had a slightly higher proportion of people less than 19 years old and a slightly lower proportion of people 19-34 years old, compared to Deer and Wildlife Enthusiasts. This difference is also reflected by the interrelationship of group members; the Disinterested type was more likely to have been accompanied by a spouse or child and less likely to have been with a friend.

Respondent Characteristics

Demographic

The majority of respondents to the mail survey were male and a large percentage had some college education (Table I-14). There was a fairly even distribution of urban to rural residents. More of the Disinterested type than the Enthusiast types were 35-44 years old and fewer were younger than 35.

Behavior

People in the Disinterested type participated less than those in the 2 Enthusiast types in a variety of wildlife-related activities throughout 1984 (Table I-15). Participation in wildlife observation was greater for all types throughout the year than during their Northern New York trip, implying that much of this activity took place around their homes. About 1/3 of the Deer Enthusiasts hunted sometime in 1984 compared to about 1/5 of the other 2 types.

Table I-14. Socio-demographic characteristics of recreationists, by Deer Preference Type.

Socio-demographic Characteristics	Deer Enthusiasts (n=412)	Wildlife Enthusiasts (n=247)	Disinterested (n=174)
	Percent		
<u>Sex</u>			
Female	23	21	29
Male	77	79	71
<u>Current Residence</u>			
Rural	21	23	18
Village under 2,500	7	6	8
Village 2,500 to 4,999	11	11	12
Small city 5,000 to 24,999	24	20	20
City 25,000 to 99,999	17	21	21
City 100,000 or more	20	19	21
	Mean		
Years of Education	14.0	14.7	14.8
Age	42.9	41.5	44.2

Table I-15. Wildlife-related activities recreationists participated in anywhere in 1984, by Deer Preference Type.

Activities	Deer Enthusiasts (n=429)	Wildlife Enthusiasts (n=259)	Disinterested (n=182)
	Percent		
Wildlife observation	85	88	63
Fishing	64	63	54
Wildlife photography	57	59	34
Wildlife feeding	45	51	35
Hunting	35	22	23
Trapping	1	2	2
None of the above	2	3	13

Wildlife Attitudes and Values

A clearer perspective of recreationists' general, everyday interest in wildlife was provided by an examination of their beliefs about their personal use of wildlife as determined by the Wildlife Attitudes and Values Scale. This measurement scale allows comparisons of attitudes held by different groups of respondents. All 3 recreationist types were interested in nonconsumptive/noneconomic wildlife uses, although the 2 Enthusiast types were more likely than the Disinterested type to be strongly interested in such uses (Table I-16). Deer Enthusiasts were divided between believing that consumptive/economic wildlife uses were important vs. unimportant, while the other 2 types were more likely to consider such uses unimportant. All types expressed tolerance toward several kinds of problems wildlife can cause people (e.g., personal safety risks, property damage, etc.). Responses to individual statements in the scale for each type can be found in Appendix F.

Results of On-Site Interviews

The presence of wildlife was never mentioned by any of the 24 interviewees as a factor contributing to their decisions to visit Northern New York. Reasons cited most often were: traditionally vacation in Northern New York, convenient travel distance, and appealing setting for spending time with family and/or friends. Other than fishing, participation in wildlife-related activities was rarely expressed, and interviewees' trip satisfactions or dissatisfactions were not a result of their wildlife experiences.

Nearly all interviewees had to be prompted by the interviewer before they would discuss wildlife. About 1/2 of the interviewees had no expectations of wildlife sightings. Those with expectations anticipated seeing birds or small

Table I-16. Recreationists' ratings of dimensions measuring their attitudes toward and values of wildlife, by Deer Preference Type.

Attitude and Value Dimensions ^a	Deer	Wildlife	Disinterested
	Enthusiasts	Enthusiasts Percent	
<u>Nonconsumptive/Noneconomic- Use Beliefs</u>			
Strongly Agree	46	51	28
Agree	40	35	48
Neutral	12	12	21
Disagree	1	1	2
Strongly disagree	1	1	1
Total: Percent	<u>100</u>	<u>100</u>	<u>100</u>
Mean ^b	1.7	1.7	2.0
Number	394	239	174
<u>Consumptive/Economic- Use Beliefs</u>			
Strongly Agree	16	14	10
Agree	23	19	20
Neutral	22	24	22
Disagree	11	11	14
Strongly disagree	28	32	34
Total: Percent	<u>100</u>	<u>100</u>	<u>100</u>
Mean ^b	3.1	3.3	3.4
Number	394	241	177
<u>Problem-Tolerance Beliefs</u>			
Strongly Agree	20	27	11
Agree	52	50	53
Neutral	20	15	26
Disagree	5	5	8
Strongly disagree	3	3	2
Total: Percent	<u>100</u>	<u>100</u>	<u>100</u>
Mean ^b	2.2	2.1	2.4
Number	397	237	175

^aDimension ratings are calculated by summing and then averaging responses to the individual attitude and value statements represented by each dimension. Responses to individual statements can be found in Appendix F.

^bThe values used to compute mean scores are: 1 = Strongly agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly disagree.

mammals, although deer were mentioned a few times. Interviewees preferred to see bears or small mammals. Interviewees' descriptions of the importance of their wildlife experiences were very similar; most indicated that seeing wildlife added to the trip but was unimportant to the success of the trip or to their intentions to return to Northern New York. Even the few who expressed disappointment at seeing fewer animals than expected would not as a result alter their future intentions to visit the region.

Public Campground Users: Population Expansion Estimates for Selected Variables

Approximately 392,000-554,000 Deer Enthusiasts and 240,000-340,000 Wildlife Enthusiasts camped at public campgrounds in Northern New York in 1984 (see Appendix B for a discussion of the population expansion procedures). Camper estimates by range were: 163,000-292,000 Deer Enthusiasts and 109,000-194,000 Wildlife Enthusiasts in the Agricultural range; 101,000-144,000 Deer Enthusiasts and 60,000-86,000 Wildlife Enthusiasts in the Transitional range; and 74,000-87,000 Deer Enthusiasts and 44,000-52,000 Wildlife Enthusiasts in the Central range. From 211,000-298,000 Deer Enthusiasts participated in wildlife observation/photography, with 6,000-8,000 having considered this the activity that most influenced their decision to visit Northern New York. About 71,000-100,000 campers expected to see deer on their trip but did not.

Creating wildlife observation areas or displays that explain the natural history of various wildlife species would be preferred developments for 316,000-446,000 Deer Enthusiasts and 196,000-277,000 Wildlife Enthusiasts. An estimated 218,000-308,000 Deer Enthusiasts and 97,000-138,000 Wildlife Enthusiasts would favor an increase in the likelihood that deer will be seen in the wild; 75,000-105,000 Deer Enthusiasts and 39,000-55,000 Wildlife

Enthusiasts would prefer the establishment of facilities where deer can be observed and more can be learned about them.

SECTION II
SURVEY OF LANDOWNERS' INTEREST IN DEER:
PROCEDURES AND RESULTS

PROCEDURES

Sample Selection

Information concerning Northern New York residents' nonconsumptive deer-related interests was collected through a mail-questionnaire survey of Northern New York landowners. Landowner sampling was stratified by deer range. Two categories of landowners were considered: permanent residents and seasonal residents. A permanent resident of a range is an individual who owns land that is classified as taxable, year-round residential property in the range and whose mailing address for the tax bill is also in the range. A seasonal resident of a range is an individual who owns land that is classified as taxable, seasonal residential property in the range and whose mailing address for the tax bill is somewhere in Southern New York. Names of landowners were taken from the real property tax rolls for each town within a range. A total of 70 permanent and 70 seasonal residents were sampled from each range. See Appendix G for a more detailed description of the sampling process.

It should be noted that landowners are not representative of all Northern New York residents; renters or those who own seasonal property in the NZ but have a permanent out-of-state address were excluded.

Landowner Weighting and Population Extrapolations

Data weighting is required when the responses of all permanent residents or all seasonal residents are combined. Therefore, the total number of respondents reported on each table in this section and in Appendix M are weighted rather than actual totals. See Appendix H for a discussion of weighting procedures.

Because the permanent resident and seasonal resident populations can be estimated for Northern New York, it is possible to extrapolate findings from the sample respondents to obtain estimates of numbers of landowners within Northern New York who have particular characteristics. See Appendix I for a discussion of the population extrapolation procedure and the assumptions underlying the procedure.

Questionnaire Development and Implementation

The landowner questionnaire was developed by Project W-146-R staff and reviewed by DEC staff. Our standard mailing procedure of 4 mailings, permitting up to 3 follow-up contacts with nonrespondents, was followed; the landowner questionnaire and cover/reminder letters can be found in Appendices J and K, respectively. The mailing chronology was as follows:

- 22 April 1985 - cover letter and questionnaire;
- 1 May 1985 - reminder letter to nonrespondents;
- 13 May 1985 - cover letter and questionnaire to nonrespondents;
- 22 May 1985 - reminder letter to nonrespondents.

RESULTS

Response Rate

The initial sample size of 420 resulted in 15 nondeliverable questionnaires, producing an adjusted sample size of 405. Of these, 247 questionnaires were returned (61.0 percent) and 223 were codable (Appendix L). Seasonal residents responded at a higher rate than permanent residents, and landowners in the Central range responded at a higher rate than landowners in the other 2 ranges.

Extent and Nature of Residents' Interest in Wildlife and Deer

Most residents were Deer Enthusiasts (75 percent or more), about 15 percent were classified as Wildlife Enthusiasts, and 9 percent or less were Disinterested (Table II-1). Because so few respondents were in the Wildlife Enthusiast and Disinterested categories, these groups were eliminated from the data analysis. The results that follow refer to permanent and seasonal residents in the Deer Enthusiast type; they will be referred to as Landowner Deer Enthusiasts (LDE's).

LDE's felt that solitude/rejuvenation and nature were both important to their recreational experiences in Northern New York, with solitude/rejuvenation being an extremely important feature of the trip (Table II-2). Social experiences, achievement/challenge, and facilities/attractions were also considered important, but less so.

All of the specific experiences comprising the nature component also played an important role in activity participation. Seeing or hearing wildlife was the most important experience; seeing mountains was least important (Table II-3).

All LDE's wanted to see deer, with about 4/5 mentioning deer as their most preferred animal (Table II-4). Observations of small mammals was next in preference, desired by about 1/2 of the LDE's.

Activity Participation

Activities participated in most by permanent LDE's included driving and walking for pleasure, fishing, picnicking, and hunting (Table II-5). Many of these same activities were popular among seasonal LDE's but they showed a greater interest in water-based activities such as fishing, boating/canoeing,

TABLE II-1. Distribution of landowners, by Deer Preference Type.

Deer Preference Types	Landowner Category			
	Permanent		Seasonal	
	Percent	n	Percent	n
Deer Enthusiasts	80	70	75	78
Wildlife Enthusiasts	14	12	16	17
Disinterested	<u>6</u>	<u>5</u>	<u>9</u>	<u>9</u>
Total	100	87	100	104

TABLE II-2. Importance of general kinds of experiences to LDE's recreation participation in Northern New York in 1984, by residence type.

General Experience/ Importance Ratings	Permanent (n=68)	Seasonal (n=71)
	Percent	
<u>Solitude/Rejuvenation</u>		
Extremely important	79	81
Moderately important	17	17
<u>Nature</u>		
Extremely important	61	74
Moderately important	36	23
<u>Social</u>		
Extremely important	41	28
Moderately important	35	45
<u>Achievement/Challenge</u>		
Extremely important	34	23
Moderately important	40	41
<u>Facilities/Attractions</u>		
Extremely important	31	37
Moderately important	52	33

TABLE II-3. Importance of specific nature experiences to LDE's recreation participation in Northern New York in 1984, by residence type.

Specific Experiences/ Importance Ratings	Permanent (n=69)	Seasonal (n=73)
	Percent	
<u>Seeing, Hearing Wildlife</u>		
Extremely important	67	76
Moderately important	33	24
<u>Seeing Rivers or Lakes</u>		
Extremely important	51	60
Moderately important	45	39
<u>Seeing Wild Flowers, Plants, or Trees</u>		
Extremely important	52	59
Moderately important	39	34
<u>Seeing Mountains</u>		
Extremely important	38	47
Moderately important	47	32

TABLE II-4. LDE's preferences for the kinds of wildlife that they would like to see in Northern New York, by residence type.

Kinds of Wildlife	Permanent (n=70)	Seasonal (n=78)
	Percent	
Deer	100	100
Small mammals	54	48
Waterfowl	32	29
Songbirds	33	16
Bear	15	26
Other birds (grouse, heron, etc.)	25	12
Beaver	11	27
Raptors	8	6
Coyote, bobcat, fox	4	9
Other wildlife (including moose)	7	4

TABLE II-5. Activity participation by permanent and seasonal LDE's in Northern New York in 1984.

Activities	Permanent (n=69)	Seasonal (n=77)
	Percent/(Mean number of days)	
Driving for pleasure	81 (20)	49 (16)
Walking for pleasure	72 (31)	68 (24)
Fishing	67 (18)	71 (19)
Swimming	56 (29)	49 (24)
Picnicking	63 (9)	25 (12)
Boating/Canoeing	52 (21)	69 (21)
Hunting	60 (19)	49 (12)
Sightseeing/Visiting Attractions	54 (15)	43 (6)
Camping	45 (12)	43 (20)
Observing/Photographing Wildlife	38 (23)	39 (33)
Bicycling	27 (19)	8 (16)
Hiking	26 (21)	32 (10)
Downhill/Crosscountry Skiing	23 (9)	11 (6)
Snowmobiling	21 (22)	11 (6)
Ice Fishing	24 (14)	12 (18)
Observing/Photographing Nature (other than wildlife)	11 (17)	19 (17)
Snowshoeing	12 (4)	16 (2)
Backpacking	15 (6)	9 (4)
Other	13 (20)	4 (14)

and swimming. Participation in wildlife observation/photography was moderate, less than 40 percent of LDE's participating.

Deer were among the most frequently seen or heard animals in Northern New York in 1982-83 (Figure II-1). Expectations of deer sightings in 1984 were equal to or greater than expectations of seeing or hearing most of the other species. Not all landowners who saw deer in 1982-83 expected to see deer in 1984, and most who went through 1982-83 without a deer sighting did not anticipate one in 1984.

Deer were one of several commonly experienced animals in 1984. Most landowners who expected to observe deer in 1984 did. On the other hand, many landowners, particularly permanent LDE's, without expectations did observe deer in 1984.

Satisfaction with Recreation and Wildlife Experiences

Most LDE's were satisfied with their 1984 recreational experiences in Northern New York (Figure II-2). Satisfaction ratings for their wildlife experiences were also high. LDE's with neutral or negative wildlife satisfaction ratings attributed these to having had fewer encounters with wildlife than they had hoped. However, about 1/4 of the landowners who were satisfied with their wildlife experiences had expected to see more wildlife on their trip.

Although recreation activity satisfaction and wildlife experience satisfaction ratings were both positive, there is little evidence that the 2 ratings are strongly correlated; the highest correlation ($r = .57$) between recreation activity and wildlife experience satisfaction found was for permanent LDE's. A surprising find, unlike the relationship described for

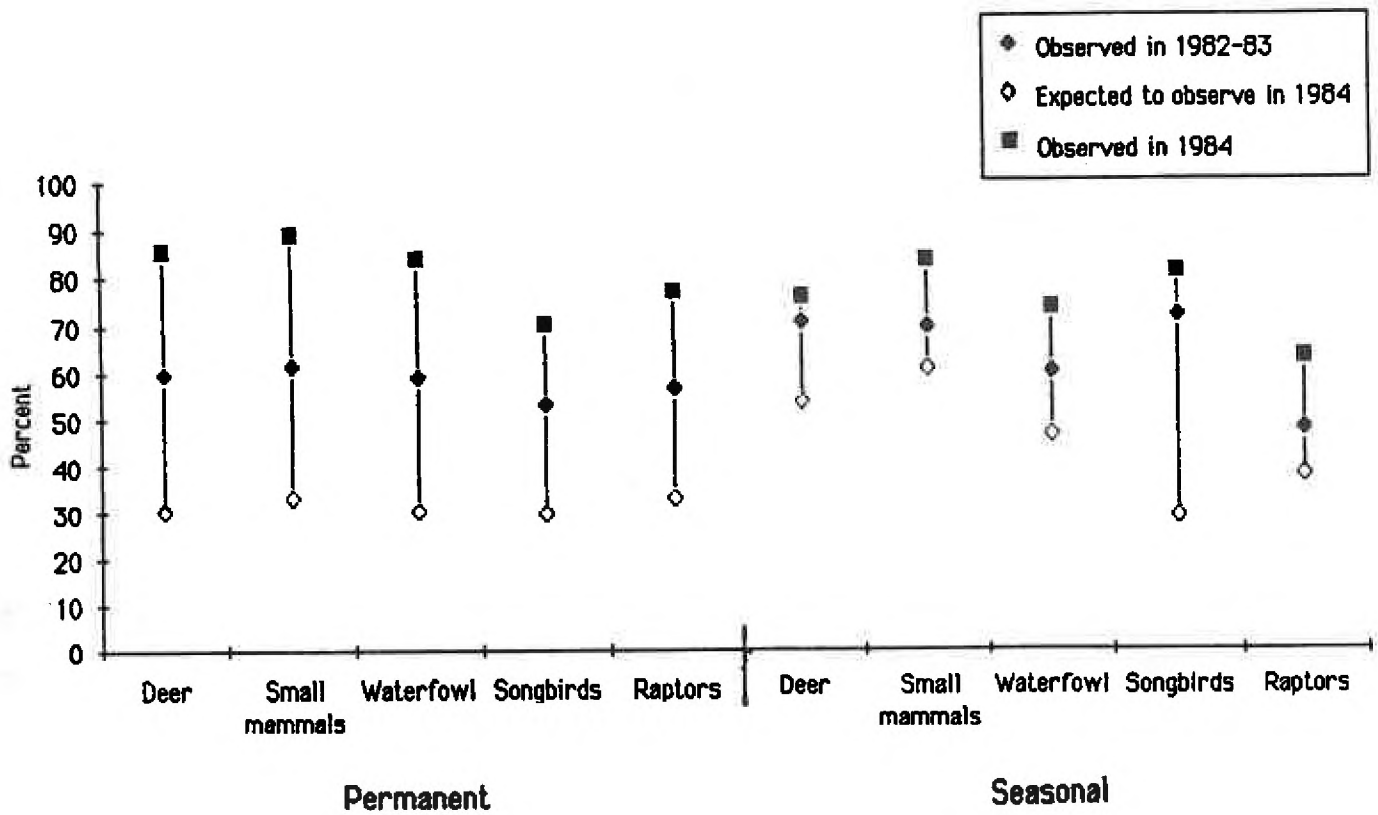


Figure II-1. Deer and other wildlife observed in 1982-83, observed in 1984, and expected to see in 1984 by LDE's in each residence type.

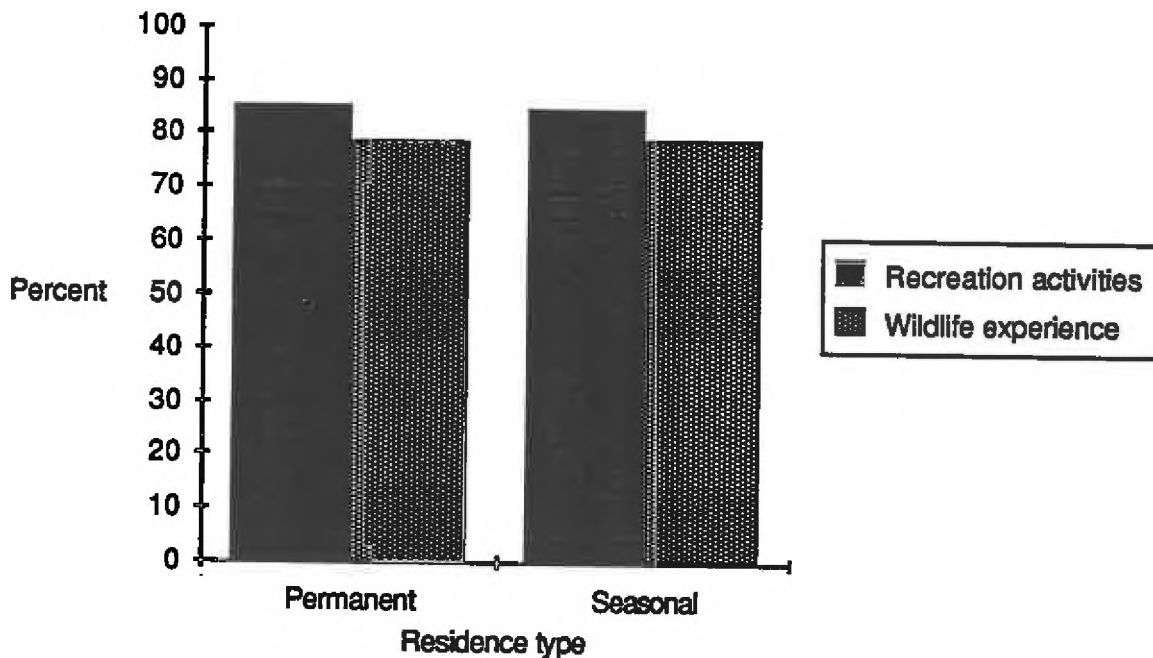


Figure II-2. Percent of LDEs satisfied with their overall recreation activities and wildlife experience in Northern New York in 1984, by residence type.

recreationists, was that there were no significant differences in the wildlife satisfaction ratings of those who did vs. did not observe deer in 1984.

Wildlife-Related Program and Information Preferences

The creation of wildlife observation areas or displays was the type of recreation facility or tourism-related service most preferred for development in Northern New York (Table II-6). Several other developments not related to wildlife were also desirable to respondents, such as: making highways more scenic, creating more hiking trails or boat launch areas, and providing more information about recreation opportunities. Like the nonresident recreationists, few LDE's preferred more retail and service facilities or amusement parks.

TABLE II-6. LDE's ratings of very desirable or desirable additions or improvements that could be made in recreation facilities or tourism-related services, by residence type.

Additions or Improvements	% who thought addition desirable or very desirable	
	Permanent (n=67)	Seasonal (n=78)
Creations of wildlife observation areas or displays	76	74
Make highways more scenic; create more scenic overlooks	71	73
More hiking trails or boat launch areas	64	69
More information about recreation opportunities	76	59
More campgrounds or picnic areas	63	48
More retail and service facilities	30	19
More amusement parks, theme parks, etc.	28	16

Landowners expressed a range of preferences for increasing opportunities to observe deer and/or learn more about deer in Northern New York. Over 1/2 of the permanent LDE's and over 40 percent of seasonal LDE's favored increasing the likelihood that deer will be seen in the wild, while about 1/2 of the seasonal LDE's would prefer that nothing be done to increase such opportunities. Of those who desired increased opportunities for viewing deer, the majority of both permanent and seasonal LDE's desired that deer be seen in the wild (Table II-7). More permanent than seasonal LDE's desired facilities for observation.

The specific approach most preferred by the greatest proportion of those who would like to increase opportunities was to establish clearings and food plantings to improve the chance of seeing deer from certain roads (Table II-8). Other popular approaches were locating hiking trails where deer sightings would be most likely and establishing areas where deer could be photographed. More seasonal than permanent LDE's preferred interpretive centers.

LDE's expressed a desire for DEC to provide them with information about recreation opportunities in Northern New York either directly through the mail or indirectly through radio, television, or newspaper advertisements (Table II-9).

Respondent Characteristics

Several differences regarding respondent characteristics were identified. Seasonal LDE's were older than permanent LDE's (Table II-10). Permanent LDE's lived in rural areas and small villages while seasonal LDE's were from larger villages or cities in Southern New York (Table II-10). LDE's reported a considerable duration of property ownership, most owning the land for 20 years or more (Table II-11).

TABLE II-7. Type of opportunity for viewing deer desired by LDE's who want to increase opportunity to observe and/or learn more about deer in Northern New York, by residence type.

Type of opportunity desired	Permanent	Seasonal
	Percent	
Increase the likelihood that deer will be seen in the wild	65	86
Establish facilities where deer can be observed and more can be learned about them	<u>35</u>	<u>14</u>
Total: Percent	100	100
n	54	36

TABLE II-8. LDE's preferred approaches for increasing opportunities to observe and/or learn more about deer in Northern New York, by residence type.

Approaches	Permanent	Seasonal
	Percent	
Establish clearings and food plantings to increase likelihood deer will be seen from certain roads.	68	59
Locate hiking trails where deer sightings are most likely.	60	33
Establish areas where deer can be photographed.	47	31
Distribute newsletters, hold seminars to provide more information about deer.	38	32
Open interpretive centers that would explain the natural history of deer in Northern New York.	34	41
Keep deer in viewing areas with a biologist on hand to answer questions.	11	11

TABLE II-9. LDE's preferences for channels DEC should use to get information about recreation opportunities in Northern New York to them, by residence type.

Channels	Permanent (n=59)	Seasonal (n=60)
	Percent	
Information available through the mail	49	35
Radio, TV advertisements	44	29
Newspaper advertisements	41	28
Information available at various locations (libraries, stores, campgrounds, etc.)	13	23
Information contained in magazines	6	20
Information available at information booths	0	1

TABLE II-10. Socio-demographic characteristics of LDE's by residence type.

Socio-demographic characteristics	Permanent (n=66)	Seasonal (n=76)
	Percent	
Current Residence		
Rural	65	23
Village under 2,500	19	7
Village 2,500 to 4,999	8	3
Small city 5,000 to 24,999	8	31
City 25,000 to 99,999	0	22
City 100,000 or more	0	14
		Mean
Years of Education	12	13
Age	46	60

TABLE II-11. Number of years LDE's have owned land in Northern New York, by residence type.

Duration of Ownership	Permanent	Seasonal
	Percent	
1-9 years	26	11
10-19 years	27	30
≥20 years	47	59
Total: Percent	100	100
Mean	18.8	24.0
Number	66	78

Efforts to maximize the benefits of a deer management program should consider the residence location of target audiences. Nearly all permanent LDE's resided in the Agricultural and Transitional ranges (Table II-12), not surprising given the population distribution in Northern New York. Among seasonal residents, Deer Enthusiasts were located in the Transitional and Central ranges.

Wildlife Attitudes and Values

Most LDE's had positive nonconsumptive/noneconomic wildlife-use beliefs. More LDE's were positive than negative toward consumptive/economic wildlife uses, and very few were concerned with problems to humans caused by wildlife (Table II-13). Responses to individual statements in the scale for each residence type can be found in Appendix M.

Landowner Population Expansion Estimates for Selected Variables

There were approximately 46,000 permanent LDE's and 14,500 seasonal LDE's in Northern New York (Appendix Table I-2) (see Appendix I for an explanation for population expansion procedures). About 32,000 of them would favor an increase in the likelihood that deer will be seen in the wild and approximately 15,000 would endorse the establishment of facilities where deer could be observed and more could be learned about deer.

TABLE II-12. Deer range location of LDEs' property, by residence type.^a

	Permanent	Seasonal
	Percent	
Agricultural	49	7
Transitional	42	59
Central	<u>9</u>	<u>34</u>
	100	100

^aTable has been weighted by population distribution in the Northern Zone.

TABLE II-13. LDE's ratings of dimensions measuring their attitudes toward and values of wildlife, by residence type.

Attitude and Value Dimensions ^a	Permanent	Seasonal
	Percent	
<u>Nonconsumptive/Noneconomic-Use Beliefs</u>		
Strongly agree	39	43
Agree	45	42
Neutral	15	13
Disagree	1	1
Strongly disagree	0	1
Total: Percent	<u>100</u>	<u>100</u>
Mean ^b	1.8	1.8
Number	62	64
<u>Consumptive/Economic-Use Beliefs</u>		
Strongly agree	18	23
Agree	32	22
Neutral	21	20
Disagree	15	12
Strongly disagree	14	23
Total: Percent	<u>100</u>	<u>100</u>
Mean ^b	2.8	2.9
Number	61	65
<u>Problem-Tolerance Beliefs</u>		
Strongly agree	9	17
Agree	54	48
Neutral	28	25
Disagree	7	6
Strongly disagree	2	4
Total: Percent	<u>100</u>	<u>100</u>
Mean ^b	2.4	2.3
Number	64	73

^aDimension ratings are calculated by summing and then averaging responses to the individual attitude and value statements represented by each dimension. Responses to individual statements can be found in Appendix M.

^bThe values used to compute mean scores are: 1 = Strongly agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly disagree.

SECTION III

SUMMARY AND CONCLUSIONS

Three conclusions that summarize the study findings are: (1) interest in the deer resource of Northern New York is widespread among people who live and recreate in the region; (2) the deer resource is only one of several important components in the recreational experience of visitors and residents of Northern New York; (3) the potential exists to increase recreationists' and landowners' interests in deer while simultaneously serving the broader objectives of deer management in Northern New York.

The relative size of the Deer Enthusiast type among respondents is evidence that wildlife and deer are of interest to nonconsumptive recreationists visiting Northern New York and, particularly, to landowners residing permanently or seasonally in the region. Nevertheless, respondents indicated that wildlife and deer were but one important aspect of their recreation experiences. Recreationists in the Deer Enthusiast type based their decisions to visit Northern New York on more factors than just the presence of natural features; in fact, over 1/2 felt that other factors weighed more heavily on their decision. And while all Deer Enthusiasts reported that experiencing nature was a very important component of their recreation trips, the personal benefits derived from solitude/rejuvenation were equally valued. The 3 other kinds of general experiences (facilities/attractions, social, and achievement/challenge) were also considered important by at least 1/2 of the Deer Enthusiasts.

Seeing rivers or lakes was more highly valued than seeing or hearing wildlife as a way to experience nature for recreationists, even those who were Deer Enthusiasts, and seeing mountains was almost as important as seeing or

hearing wildlife. Seeing or hearing wildlife was the most important way landowner Deer Enthusiasts experienced nature, though seeing rivers and lakes and seeing wild flowers, plants, or trees were both considered extremely important by 1/2 of this type. A final indication that wildlife experiences are only one factor affecting recreation participation is the lack of correlation between wildlife-related satisfactions and overall recreation satisfaction.

Apparently wildlife experiences play a more important role in recreation participation for landowners than for recreationists, even when comparing Deer Enthusiasts from each survey group. A possible explanation lies in differences in recreational experiences sought by each category of respondent in the Deer Enthusiast Typology. One common goal in recreation participation was experiencing solitude/rejuvenation. "Nature" was more highly valued by recreationists, the group of respondents least likely to experience anything similar to the "nature" characteristic of Northern New York at home, than by landowners. Among landowners, permanent residents (those in daily contact with "nature" in the region) rated it lower than did seasonal residents. Social experiences were sought most by permanent residents, followed by seasonal residents, and then recreationists. Interest in facilities/attractions was expressed most strongly by recreationists, who depend on the availability of these for their recreational experiences, and least strongly by seasonal residents, who may have many recreation opportunities available at their seasonal residence. Achievement/challenge was most attractive to permanent residents, less so for seasonal residents, and least so for recreationists, who may have been seeking a respite from the "challenge" of everyday life.

Among components of nature, recreationists attached more importance to seeing rivers or lakes or seeing mountains than did landowners, features many recreationists may seldom see except when visiting Northern New York. Landowners expressed more interest than did recreationists in seeing or hearing wildlife. Even preferences for deer sightings were stronger for landowner Deer Enthusiasts than for recreationist Deer Enthusiasts. Lastly, satisfaction with wildlife experiences was slightly more strongly correlated to overall satisfaction for residents than for recreationists.

The demand certainly exists for expanding the public's contact with wildlife and deer. Most Deer Enthusiasts favored the creation of wildlife observation areas or displays that explain the natural history of various wildlife species. Most recreationists and permanent residents and 1/2 of the seasonal residents who were Deer Enthusiasts favored increasing interactions with deer specifically, although they were much more supportive of increasing the likelihood that deer will be seen in the wild vs. establishing facilities where deer could be observed and more could be learned about them. Popular approaches for increasing sightings in the wild included (a) establishing clearings and food plantings to increase the likelihood that deer will be seen from certain roads and (b) locating hiking trails where deer sightings will be most likely. A lower level of support also was expressed for: (a) establishing areas where deer could be photographed, (b) opening interpretive centers that would explain the natural history of deer in Northern New York, and (c) distributing information about deer.

Interest in deer-related opportunities would probably extend to many Wildlife Enthusiasts as well. One of the main differences between Deer Enthusiasts and Wildlife Enthusiasts was that the latter group tended to prefer

the more uncommon species associated with Northern New York such as moose, eagles, bobcat, loon, coyote, etc. However, there is no reason to believe that Wildlife Enthusiasts who expressed a desire for increased opportunities to observe and/or learn more about deer (as more than 1/2 did) would not take advantage of any opportunities that were created.

It seems possible to accommodate nonconsumptive recreationists' interest in deer and simultaneously serve broader deer management programming needs. This might be accomplished by the establishment of demonstration areas, as recommended in Smolka et al. (1985). These areas could provide a situation for DEC to implement and evaluate the approaches favored by nonconsumptive recreationists. A wide range of educational objectives could be addressed through a demonstration area and a variety of publics beyond nonconsumptive recreationists, such as consumptive recreationists and school children, could be reached. Any positive publicity generated by these areas could serve as an inducement for cooperation by private landowners, such as commercial forestland owners. Publicity for these areas could be undertaken not only by DEC but also by the NYS Department of Commerce, local chambers of commerce, the Adirondack Park Agency, and the NYS OPRHP.

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APPENDIX A:

RECREATIONIST SAMPLING PROCEDURE

RECREATIONIST SAMPLING PROCEDURE

Campers at DEC state campgrounds and OPRHP state parks

This sample was taken from camper registration records from selected campgrounds and parks. The selection of campgrounds and parks within a range was based on these criteria: (1) geographic distribution throughout the range; (2) variations in physical size, number of campsites, and amount of camper use; and (3) variations in the types of facilities or amenities present at each campground. These criteria were used to obtain a broad spectrum of campers. See Figure A-1 for a list of the campgrounds and parks from which the sample was drawn.

A quota of names and addresses was established for each campground and a random-start, systematic sample of the registration cards for each campground was taken to fill the quota. Only campers with legible, complete SZ addresses were selected. The summer sample consisted of campers who registered at campgrounds between August 6-10, 1984. The autumn sample consisted of campers who registered at campgrounds between 24 September and 7 October 1984.

Campers at private campgrounds or rental cottages

A listing by deer range of private campgrounds and rental cottages were compiled from 2 sources: the Rand McNally (1984) Campground and Trailer Park Directory and New York State Department of Health records of all registered private campsites and hotels and motels (a classification including rental cottages). About 30 private campgrounds and cottages per range were systematically sampled and the managers of these facilities were sent letters requesting that they allow Project W-146-R staff access to their guest

Agricultural range

Ausable Point State Park
Morean Lake State Park
Wellesley Island State Park
Robert Moses State Park

Transitional range

Paradox Lake State Campground
Caroga Lake State Campground (summer sample only)
Northhampton Beach State Campground (fall sample only)
Meachum Lake State Campground (summer sample only)
Fish Creek State Campground (fall sample only)
Whetstone Gulf State Park (summer sample only)
Delta Lake State Park (fall sample only)

Central range

Moffit Beach State Campground
Lake Harris State Campground (summer sample only)
Cranberry Lake State Campground (fall sample only)
Eighth Lake State Campground
Wilmington Notch State Campground (summer sample only)
Meadowbrook State Campground (summer sample only)

Figure A-1. Names and range location of DEC state campgrounds and OPRHP state parks from which the public campground user portion of the recreationist sample was drawn.

registration lists. Those that consented were visited by Project W-146-R staff. Due to the small number of facilities that cooperated and the typically low volume of business conducted, it was not unusual to select most or all the names of SZ residents registered throughout the period 1 July-15 October 1984 (using the Labor Day weekend as the division between the summer and autumn sample). When an operation did have a large volume of business, a systematic sample of registrants was taken to achieve a predetermined quota; the sampling periods generally coincided with those used for the public campground sample.

Users of trailhead parking and public boat-launch facilities

Names and addresses of hikers, backpackers, boaters, and fishermen are rarely available at these facilities and time constraints prohibited Project W-146-R staff from either requesting cooperation from people present at these sites or waiting there until a sufficient number of people arrived at or departed from the site. Therefore, license plate numbers of vehicles parked at the sites were recorded (which assumes that those parked at the site were using the site). The name and address of the registrant of the vehicle were then provided by the New York State Department of Motor Vehicles (another assumption is that the registrant was using the facility and had not lent the vehicle to someone else).

A facility inventory was compiled from a variety of sources: DEC publications, New York State travel information, personal contact with DEC forest rangers or members of hiking clubs, etc. Criteria for selection as a facility from which to draw a sample were based on the number of facilities of each kind that were present in a range, the distribution pattern of these

facilities throughout the range, and the ease with which these facilities could be reached.

Very few trailheads likely to be used by SZ residents were identified in the Agricultural range and vehicles registered to SZ residents were never found by Project W-146-R staff at any of these sites. Therefore, the sampling effort was directed at public boat-launch facilities entirely. In the Transitional range, trailheads and boat-launch areas were dispersed, except in portions of DMUs 12 and 16. There were ample land and water access points distributed throughout the Central range.

Summer sample acquisition was conducted by Project W-146-R staff from August 2-10, 1984. The fall sample was taken by DEC forest rangers and Environmental Conservation Officers and staff at the Adirondack Mountain Club's Adirondack Loj; sampling by DEC staff and Adirondack Mountain Club staff was conducted on the weekends of 29-30 September and 6-7 October 1984. DEC personnel avoided sampling at access points where large numbers of early season deer or bear hunters were known to frequent.

Failure to meet some sampling quotas was the result of 3 factors: (1) limited number of facilities present in some ranges; (2) low public use of some access points; and (3) sampling some points during the week when use was low.

Hotel/motel patrons

The hotel/motel sample was acquired through a combination of the 2 sampling techniques described previously. For the summer sample, Project W-146-R staff recorded the license plate numbers of vehicles parked at hotels and motels distributed throughout the 3 deer ranges from 2-10 August 1984. The names and addresses of the registrants were provided by the New York State

Department of Motor Vehicles. This technique was also employed to collect a portion of the autumn sample that took place between 28 September and 5 October 1984. In addition, a listing by deer range of hotels and motels was compiled from New York State Department of Health records of all registered hotels and motels. About 20 hotels and motels per range were systematically sampled and the managers of these facilities were sent letters requesting that they allow Project W-146-R staff access to their guest registration records. The few hotels and motels that consented were visited by Project W-146-R staff during the period 28 September to 7 October 1984, and the names and addresses of guests from the SZ who had registered sometime after the Labor Day weekend were recorded.

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APPENDIX B:

POPULATION EXPANSION PROCEDURES FOR 1984 CAMPERS
AT DEC STATE CAMPGROUNDS AND OPRHP STATE PARKS

POPULATION EXPANSION PROCEDURES FOR 1984 CAMPERS
AT DEC STATE CAMPGROUNDS AND OPRHP STATE PARKS

Step 1. The total number of 1984 campers at all state campgrounds and/or parks within each deer range was calculated based on attendance data. (These total numbers will be an overestimate of the total number of different individual campers because there is no way of knowing how many individuals camped at public campgrounds more than once in 1984.)

Step 2. The proportion of respondents in each Deer Preference type within a range or the NZ was multiplied by the total number of campers within the range or the NZ (from Step 1) to determine the estimated population of campers in each type within the range or the NZ.

Step 3. The estimated population of campers in a type giving a particular response to a question was calculated by multiplying the proportion of respondents of that type giving a particular response by the estimated population of campers of that type. The assumption made in using this method is that nonrespondents did not differ in characteristics from respondents (nonrespondents at least demonstrated an interest in outdoor recreation by their use of state campgrounds or parks). This assumption may be incorrect to some extent, with the likelihood that a greater proportion of nonrespondents vs. respondents are of the Disinterested type. Therefore, population estimates based on this assumption may overestimate the number of Deer and Wildlife Enthusiasts in the camper population (i.e., these estimates are liberal).

Step 4. To provide a balance to the liberal population estimates, a second series of estimates were made based on the assumption that nonresponding campers had no real interest in deer or wildlife and therefore should be considered part of the Disinterested type. Steps 1-3 were repeated using this assumption and as a result population estimates for the Enthusiast types were lower (i.e., these estimates are conservative). All camper population estimates at the end of Section 1 are reported as a range of estimates from conservative to liberal.

APPENDIX C:
RECREATIONIST QUESTIONNAIRE

RECREATION AND LEISURE USE STUDY



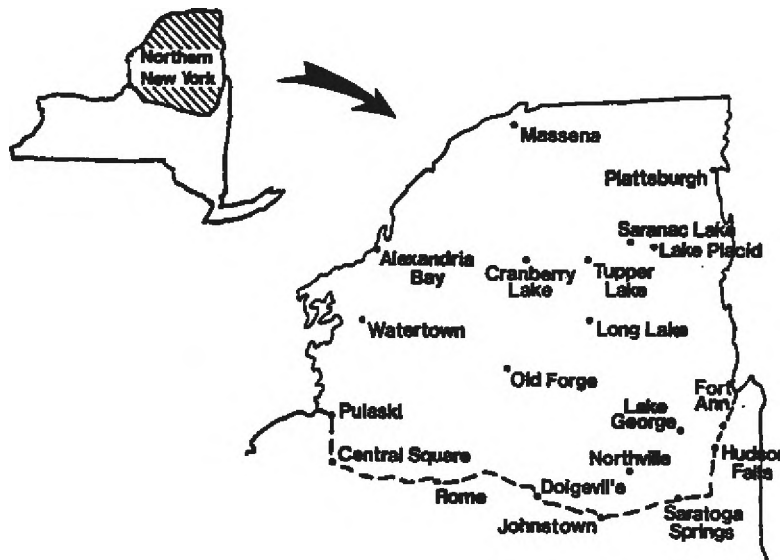
Northern New York Recreation And Leisure Use Study

Conducted by the
Department of Natural Resources
in the New York State College of
Agriculture and Life Sciences
Cornell University

This survey seeks to learn more about the pleasure trips people take to or through Northern New York (see map below). A sample of New York State residents who visited Northern New York sometime between July 1 and October 15, 1984, has been chosen to provide this information. You have been selected to be part of the sample. Your response is essential to the success of the survey in representing recreation and leisure use visitors.

We would like the addressee to complete this survey at his or her earliest possible convenience, seal it, and return it to us; postage has been provided. Your responses will remain confidential.

Thank You For Your Cooperation.



Part I. TRIP INFORMATION

1. Did you take a trip between July 1 and October 15, 1984, during which you participated in any recreation or leisure activities in Northern New York? *(Please consider participation to have occurred even if it lasted for only a part of a day. Recreation or leisure activities include such things as camping, hiking, boating, fishing, sightseeing, general relaxation, etc.) (Please circle one number.)*

1 Yes

2 No *(If "No," thank you for your assistance in answering this survey. Please return the survey by sealing it and dropping it in a mailbox; postage has been provided.)*

2. Approximately how many trips have you made in the past three years in which you participated in one or more recreation or leisure activities in Northern New York?

I have made approximately trips.
(number)

We are particularly interested in gaining a better understanding of people's recreation or leisure experiences and preferences in Northern New York. To do so, we would like to learn more about the most recent trip you made between July 1 and October 15, 1984, during which you participated in recreation or leisure activities in Northern New York. Questions 3-12 of this survey concern the trip you made during this time period and pertain to the portion of the trip spent in Northern New York.

- 3a. Which of the following best describes your primary destination(s) during this trip to or through Northern New York? *(Please circle one number.)*

1 Northern New York.

2 Northern New York and places outside of Northern New York.

3 Places outside of Northern New York.

3b. What is the name of the town or village nearest to where you spent the greatest amount of time in Northern New York on this trip? (Write your answer on the blank below.)

 (Name of town or village)

4. We would like to know more about the people who were with you in Northern New York on this trip. This information will give us a better idea of the kinds of groups that visit the area. For each person that was with you on your trip (including yourself), please indicate that person's (a) age, (b) sex, and (c) relationship to you (please be specific: e.g., mother, father, wife, husband, son, daughter, brother, sister, friend, etc.).

	a) Age	b) Sex (M or F)	c) Relationship to You
Yourself	_____	_____	XXXXXXXXXXXXXXXXXXXX
Person 2	_____	_____	_____
Person 3	_____	_____	_____
Person 4	_____	_____	_____
Person 5	_____	_____	_____
Person 6	_____	_____	_____
Person 7	_____	_____	_____

Others (give general description): _____

5. Please indicate below the number of days you spent in Northern New York on this trip. (Count any part of a day as a whole day.)

I spent _____ days in Northern New York.
 (number)

6a. What activities did you participate in when you were in Northern New York on this trip? (Please check all that apply, and then answer Questions 6b and 6c.)

- | | |
|--|--|
| <input type="checkbox"/> Backpacking | <input type="checkbox"/> Other Nature Observation/ Photography |
| <input type="checkbox"/> Bicycling | <input type="checkbox"/> Relaxing |
| <input type="checkbox"/> Boating/Canoeing | <input type="checkbox"/> Sightseeing/ Visiting Attractions |
| <input type="checkbox"/> Camping | <input type="checkbox"/> Swimming |
| <input type="checkbox"/> Fishing | <input type="checkbox"/> Visiting Friends/ Relatives |
| <input type="checkbox"/> Games/Sports | <input type="checkbox"/> Walking/Jogging |
| <input type="checkbox"/> Hiking | <input type="checkbox"/> Other (please specify): |
| <input type="checkbox"/> Hunting | |
| <input type="checkbox"/> Observing/ Photographing Wildlife | |
-

6b. The availability of which one activity listed above most influenced your decision to visit Northern New York on this trip? (Write your answer on the blank below.)

6c. From the list above, what was the one activity that you enjoyed participating in the most in Northern New York on this trip? (Write your answer on the blank below.)

II. REASONS FOR VISITING NORTHERN NEW YORK

7a. What were the reasons for your decision or opportunity to spend leisure time in Northern New York on this trip?
(Please check [✓] all that apply, and then answer Question 7b.)

- Traditionally vacationed or recreated in Northern New York.
- The decision was made by others.
- It was within easy travel distance.
- The presence of natural features (lakes, mountains, forests, wildlife, etc.).
- The availability of recreation or leisure activities (hiking, swimming, fishing, sightseeing, shopping, visiting attractions, etc.).
- To spend time at a camp, second home, or other property that is owned by myself, friends, or relatives.
- To visit friends or relatives that live in Northern New York.
- Learned about it from other people, TV or magazine advertisements, travel guides, etc.
- Had no particular reason or chosen out of curiosity.
- Planned to participate in recreation or leisure activities while in Northern New York for another reason (business, etc.).
- Participated in recreation or leisure activities while in Northern New York for another reason (business, etc.), although had not planned to do so prior to the trip.
- Other (please specify): _____

7b. Now, please circle the one reason listed above that was most important to your decision or opportunity to spend leisure time in Northern New York on this trip.

8. Listed below are five general kinds of experiences that may have influenced your decision to visit Northern New York on this trip. Please indicate how important each general experience was to your decision to visit Northern New York. (Circle one number for each general experience.)

<u>Kinds of General Experiences</u>	<u>Importance of Experiences</u>			
	<u>Extremely Important</u> (1)	<u>Moderately Important</u> (2)	<u>Slightly Important</u> (3)	<u>Not Important</u> (4)
Social (Opportunity to be with friends or relatives; to meet new people)	1	2	3	4
Facilities/Attractions (Using recreation facilities such as campgrounds, trails, or boat launches; visiting attractions; enjoying historic or cultural opportunities)	1	2	3	4
Nature (Viewing mountains, rivers, or lakes; seeing wild flowers, plants, or trees; seeing, hearing wildlife)	1	2	3	4
Solitude/Rejuvenation (Feeling of relaxation, peace and quiet; opportunity to escape everyday problems)	1	2	3	4
Achievement/Challenge (Opportunity for exercise; to learn or practice outdoor skills; to challenge myself within the natural environment)	1	2	3	4

9. Listed below are four specific experiences that may have influenced your decision to visit Northern New York on this trip. Please indicate how important each experience was to your decision to visit Northern New York. (Circle one number for each specific experience.)

<u>Specific Experiences</u>	<u>Importance of Experiences</u>			
	<u>Extremely Important</u> (1)	<u>Moderately Important</u> (2)	<u>Slightly Important</u> (3)	<u>Not Important</u> (4)
Seeing Mountains	1	2	3	4
Seeing Rivers Or Lakes	1	2	3	4
Seeing, Hearing Wildlife	1	2	3	4
Seeing Wild Flowers, Plants, Or Trees	1	2	3	4

10. Now, thinking back over your whole trip, how satisfied were you with your overall experience in Northern New York? (Please circle one number.)

<u>Extremely Dissatisfied</u>			<u>Neutral</u>				<u>Extremely Satisfied</u>
1	2	3	4	5	6	7	

III. NORTHERN NEW YORK WILDLIFE INTERESTS

11. For each of the kinds of wildlife listed below, please indicate whether you:

- (a) expected to observe or hear that kind of wildlife in Northern New York on your trip;
- (b) actually observed or heard that kind of wildlife in Northern New York on your trip; and
- (c) observed or heard that kind of wildlife in Northern New York on a previous trip taken within the past three years. *(If you have not taken a previous trip within the past three years, answer Questions 11a + 11b, then skip to Question 12.)*

(Check all that apply.)

	a) I expected to observe/ hear on trip	b) I actually observed/ heard on trip	c) I observed/ heard on previous trip(s)
Songbirds.....	[]	[]	[]
Waterfowl (Duck, Loon).....	[]	[]	[]
Birds Of Prey (Hawk, Owl).....	[]	[]	[]
Other Birds (Grouse, Heron, etc.).....	[]	[]	[]
Beaver.....	[]	[]	[]
Bear.....	[]	[]	[]
Deer.....	[]	[]	[]
Coyote, Bobcat, Fox...	[]	[]	[]
Other Mammals (Chipmunk, Squirrel, Rabbit, Hare, Raccoon, Otter, Etc.).....	[]	[]	[]
Other <i>(please specify):</i> _____	[]	[]	[]
No Animals.....	[]	[]	[]

12a. How satisfied were you with your wildlife experiences in Northern New York on your trip? *(Please circle one number and then answer Question 12b.)*

<u>Extremely</u> <u>Dissatisfied</u>								<u>Extremely</u> <u>Satisfied</u>
1	2	3	4	5	6	7		

12b. Please explain the reason for your answer to Question 12a:

13. Please list the three wild animals that you would most like to see or hear if you are in Northern New York again. *(List by your order of preference.)*

Like To See/Hear The Most: _____

Like To See/Hear 2nd Most: _____

Like To See/Hear 3rd Most: _____

IV. FACILITY AND SERVICE PREFERENCES

14. Listed below are possible additions or improvements that could be made in recreation facilities or tourism-related services in Northern New York. Please rate each of the possible additions or improvements in terms of how desirable it is to serve your recreation needs. (Circle one number for each addition or improvement.)

<u>Possible Improvements</u>	<u>Very Desirable</u>	<u>Desirable</u>	<u>Neither Desirable nor Undesirable</u>	<u>Undesirable</u>	<u>Very Undesirable</u>
	(1)	(2)	(3)	(4)	(5)
More amusement parks, theme parks, arcades.	1	2	3	4	5
More hiking trails or boat launch areas.	1	2	3	4	5
Creation of wildlife observation areas or displays that explain the natural history of various wildlife species.	1	2	3	4	5
More retail and service facilities to meet your recreation needs (restaurants, hotel/motels, gas stations, stores, etc.).	1	2	3	4	5
More information about recreation opportunities.	1	2	3	4	5
Make highways more scenic; create more scenic overlooks.	1	2	3	4	5
More campgrounds or picnic areas.	1	2	3	4	5

15a. What is your preference for increasing opportunities to observe deer and/or learn more about deer in Northern New York? (Please circle only one number.)

- 1 I prefer that nothing be done to increase these opportunities. (Go to Question 16)
- 2 I prefer an increase in the likelihood that deer will be seen in the wild. (Answer Questions 15b + 15c)
- 3 I prefer the establishment of facilities where you can see and learn about deer. (Answer Questions 15b + 15c)

15b. Please check below the approaches you would prefer to increase opportunities to observe deer and/or learn more about deer in Northern New York. (Check all that apply.)

- Establish clearings and food plantings to increase the likelihood that deer will be seen from certain roads.
- Place hiking trails where deer sightings are most likely.
- Distribute newsletters and hold seminars to provide more information about deer.
- Keep deer in large, fenced viewing areas with a wildlife biologist on hand to answer questions.
- Open interpretive centers that would explain the natural history of deer in Northern New York.
- Establish areas where deer can be photographed.
- None of the above.
- Other (please specify): _____

15c. Now, circle the one action listed in Question 15b above that you would most like to see occur in Northern New York.

V. GENERAL WILDLIFE INTERESTS

16. People have different interests in wildlife. Some of these interests are listed below. Please indicate how you feel about the following by your agreement or disagreement with each statement. (Indicate your response for each statement by circling the appropriate number.)

<u>It Is Important To Me Personally:</u>	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
	(1)	(2)	(3)	(4)	(5)
That I talk about wildlife with family and friends.....	1	2	3	4	5
That I observe or photograph wildlife.	1	2	3	4	5
That I tolerate ordinary wildlife nuisance problems.....	1	2	3	4	5
That I trap furbearing animals for the sale of fur or pelts.....	1	2	3	4	5
That I consider the presence of wildlife as a sign of the quality of the natural environment.....	1	2	3	4	5
That I hunt game animals for recreation.....	1	2	3	4	5
That I see wildlife in books, movies, paintings, or photographs.....	1	2	3	4	5
That I tolerate ordinary levels of property damage by wildlife.....	1	2	3	4	5
That I express opinions about wildlife and their management to public officials or to officers of private conservation organizations.....	1	2	3	4	5
That I know that wildlife exist in nature.....	1	2	3	4	5

<u>It Is Important To Me Personally:</u>	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neither Agree nor Disagree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
	(1)	(2)	(3)	(4)	(5)
That I tolerate the ordinary risk of wildlife transmitting disease to humans or domestic animals.....	1	2	3	4	5
That I hunt game animals for food....	1	2	3	4	5
That local economies benefit from the sale of equipment, supplies, or services related to wildlife recreation.....	1	2	3	4	5
That I appreciate the role that wildlife play in the natural environment..	1	2	3	4	5
That wildlife are included in educational materials as the subject for learning more about nature.....	1	2	3	4	5
That game animals are managed for an annual harvest for human use without harming the future of the wildlife population.....	1	2	3	4	5
That I tolerate the ordinary personal safety hazards associated with some wildlife.....	1	2	3	4	5
That I understand more about the behavior of wildlife.....	1	2	3	4	5

17. Which of the following wildlife-related activities did you participate in anywhere last year? (Check all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> Wildlife Feeding | <input type="checkbox"/> Hunting |
| <input type="checkbox"/> Fishing | <input type="checkbox"/> Wildlife Observation |
| <input type="checkbox"/> Wildlife Photography | <input type="checkbox"/> Trapping |
| <input type="checkbox"/> None Of The Above | |

VI. BACKGROUND INFORMATION

The following information will be kept strictly confidential and will not be associated with your name.

18. **Please indicate the highest grade or year in school you have completed. (Please circle one number.)**

Elementary School	1	2	3	4	5	6	7	8
High/Vocational School	9	10	11	12				
College/Technical School	13	14	15	16				
Graduate School	17	18	19	20	21	22		

19. **Which of the following best describes the population of the area where you currently live? (Please circle one number.)**

- 1 Rural
- 2 Village Of Under 2,500
- 3 Village Of 2,500 to 4,999
- 4 Village Or Small City Of 5,000 To 24,999
- 5 City Of 25,000 To 99,999
- 6 City Of 100,000 Or More

20. **What would be the best way(s) for the DEC to get information about recreation opportunities in Northern New York to you?**

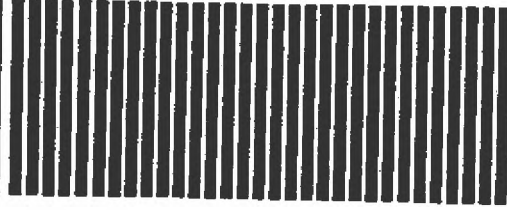
Thank You For Your Time And Effort!

To Return This Questionnaire, simply seal it (postage has been provided) and drop it in the nearest mailbox.

№ 3215



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 878 ITHACA, N.Y.

POSTAGE WILL BE PAID BY ADDRESSEE

CORNELL UNIVERSITY
Natural Resources, D. Decker
P.O. Box DH
Ithaca, New York 14851-9978



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APPENDIX D:
RECREATIONIST COVER
AND FOLLOW-UP LETTERS



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Natural Resources
Fernow Hall, Ithaca, N. Y. 14853-0188

Fishery Science
Forest Science
Wildlife Science
Natural Resources
Resource Policy
and Planning
Aquatic Science

April 22, 1985

Dear Sir or Madam:

Every year, thousands of people participate in recreation or leisure activities in the Northern New York region (please see map on inside front cover of enclosed questionnaire). Many others travel through Northern New York to participate in activities at a destination elsewhere. The New York State Department of Environmental Conservation has asked Cornell University to learn more about the trips people take to Northern New York: people's reasons for going to this region, the kinds of activities they participate in, and how satisfied they are with their trip.

To obtain this information, we are surveying a small sample of New York State residents who visited Northern New York sometime between July 1 and October 15, 1984. You have been chosen to be part of this sample and in order for the results of this study to represent accurately the experiences and opinions of people who visited Northern New York it is very important for you to complete the enclosed questionnaire. Your responses are needed even if you only spent a short time in Northern New York, participated in recreation or leisure activities while you were in Northern New York for other reasons (business, etc.), or just travelled through Northern New York on your way to another destination. If you did not participate in any recreation or leisure activities in Northern New York between July 1 and October 15, 1984, you need only answer the first question and then return the questionnaire.

You may be assured of complete confidentiality. The questionnaire has an identification number on it for mailing purposes. This is so we can check your name off our mailing list when your questionnaire is returned so we do not bother you with a reminder. Your name and address will never be associated with your reply and will never be made available to anyone.

To return the completed questionnaire, simply seal it and drop it into any mailbox. Return postage has been provided.

Thank you for your help.

Sincerely,

Daniel J. Decker
Daniel J. Decker
Research Associate
Natural Resources

DJD:k
enclosure



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Natural Resources
Fernow Hall, Ithaca, N. Y. 14853-0188

Fishery Science
Forest Science
Wildlife Science
Natural Resources
Resource Policy
and Planning
Aquatic Science

May 1, 1985

Dear Sir or Madam:

About a week ago we sent you a questionnaire concerning your participation between July 1 and October 15, 1984, in recreation or leisure activities in Northern New York. You may have already returned your questionnaire, and if so, we would like to thank you. If you have not yet had an opportunity to complete the questionnaire, we would appreciate it if you would take a few minutes now to fill it out and return it so that we can process all replies as soon as possible.

Please understand that your completed questionnaire is very important to the success of the study. Your response will greatly help us learn more about people's recreation and leisure activity participation in Northern New York.

All information you provide will be kept confidential and is never associated with your name.

Thank you very much for your help.

Sincerely,

A handwritten signature in cursive script that reads "Daniel J. Decker".

Daniel J. Decker
Research Associate
Natural Resources

DJD:k



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Natural Resources
Fernow Hall, Ithaca, N. Y. 14853-0188

Fishery Science
Forest Science
Wildlife Science
Natural Resources
Resource Policy
and Planning
Aquatic Science

May 13, 1985

Dear Sir or Madam:

About four weeks ago we sent you a questionnaire concerning your participation between July 1 and October 15, 1984, in recreation or leisure activities in Northern New York. To date, we have not received your completed questionnaire. We realize that you may be busy, but your response is important to the validity of the study findings.

In case you have misplaced the earlier questionnaire, we have enclosed another for your convenience (postage has been provided). Please fill out the booklet as soon as possible. If you have already returned the questionnaire, thank you for your cooperation.

All information you provide will be kept strictly confidential and is never associated with your name.

Your promptness in filling out and returning the questionnaire will be greatly appreciated. Thank you for your time and effort.

Sincerely,

Daniel J. Decker
Daniel J. Decker
Research Associate
Natural Resources

DJD:k
enclosure



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Natural Resources
Fernow Hall, Ithaca, N. Y. 14853-0188

Fishery Science
Forest Science
Wildlife Science
Natural Resources
Resource Policy
and Planning
Aquatic Science

May 22, 1985

Dear Sir or Madam:

I am writing to you about our study of recreation and leisure activity participation in Northern New York. We have not yet received your completed questionnaire.

The large number of questionnaires returned is very encouraging. But, whether we will be able to describe recreation participation accurately depends on you and others who have not yet responded. This is because our past experience suggests that those of you who have not yet sent in your questionnaire may have had quite different recreation experiences from those who have. The usefulness of our results depends on how accurately we are able to describe recreation participation in Northern New York.

It is for this reason that I am sending this request for you to fill out and return the questionnaire we mailed you a week ago. Please share your Northern New York recreation or leisure experiences with us.

Your contribution to the success of the study will be appreciated greatly.

Sincerely yours,

Daniel J. Decker
Research Associate
Natural Resources

DJD:k

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APPENDIX E:

SAMPLE SIZES AND RESPONSE RATES FOR
RECREATIONIST AUDIENCES

TABLE E-1. Sample sizes and response rates for recreationist audiences.

Range/ Recreationist Audience	Initial sample size	Nondeliver- able Number	Total Response Rate Number	Usable Response Rate		
	Number			Percent ^a	Number	Percent ^b
<u>Agricultural range</u>						
Public campground users	139	7	83	62.9	76	57.6
Private campground users	144	4	100	71.5	94	67.2
Hiking trail/boat- launch users	97	1	61	63.6	59	61.5
Hotel/motel users	103	1	58	56.9	52	51.0
Total	483	13	302	64.3	281	59.8
<u>Transitional range</u>						
Public campground users	140	4	99	72.8	97	71.4
Private campground users	141	1	95	67.9	90	64.3
Hiking trail/boat- launch users	80	2	44	56.5	41	52.6
Hotel/motel users	94	2	48	52.2	44	47.9
Total	455	9	286	64.2	272	61.0
<u>Central range</u>						
Public campground users	140	4	117	86.1	116	85.3
Private campground users	139	4	110	81.5	104	77.1
Hiking trail/boat- launch users	182	2	163	90.6	156	86.7
Hotel/motel users	131	5	98	77.8	92	73.1
Total	592	15	488	84.6	468	81.1
<u>Northern Zone</u>						
Public campground users	419	15	299	74.0	289	71.6
Private campground users	424	9	305	73.5	288	69.4
Hiking trail/boat- launch users	359	5	268	75.7	256	72.4
Hotel/motel users	328	8	204	63.8	188	58.8
Total	1,530	37	1,078 ^c	72.2	1,023 ^c	68.5

TABLE E-1. (CONTINUED)

^aTotal response rate percent is calculated by subtracting the number nondeliverable from the initial sample size and then dividing this total into the total response rate number. In addition to usable (i.e., codable) responses, total responses include responses from individuals who either did not participate in recreational activities in the NZ during the period July 1-October 15, 1984, or returned an uncodable questionnaire.

^bUsable response rate is calculated by subtracting the number nondeliverable from the initial sample size and then dividing this total into the usable response rate number.

^cThese totals include 2 questionnaires received from respondents who obliterated their I.D. numbers to the point that their audience group could not be determined.

APPENDIX F:

SURVEY OF RECREATIONISTS' NONCONSUMPTIVE INTEREST
IN DEER: SUPPLEMENTARY DATA

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
F-1	Recreationists' attitudes toward and values of wildlife (arranged by attitude and value dimensions), by Deer Preference Type	109

TABLE F-1. Recreationists' attitudes toward and values of wildlife (arranged by attitude and value dimensions), by Deer Preference Type.

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Deer	Wildlife	Disinterested
	Enthusiasts	Enthusiasts	
NONCONSUMPTIVE/NONECONOMIC- USE BELIEFS			
That I know that wildlife exist in nature.			
Strongly agree	71.3	76.6	48.6
Agree	26.5	20.2	49.2
Neutral	2.2	3.2	2.3
Disagree	0.0	0.0	0.0
Strongly disagree	0.0	0.0	0.0
Total: Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Mean ^a	1.3	1.3	1.5
Number	415	248	177
That I appreciate the role that wildlife play in the natural environment.			
Strongly agree	69.6	69.5	47.0
Agree	28.7	28.1	51.4
Neutral	1.4	2.0	1.7
Disagree	0.0	0.0	0.0
Strongly disagree	0.2	0.4	0.0
Total: Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Mean ^a	1.3	1.3	1.5
Number	425	256	181
That I consider the presence of wildlife as a sign of the quality of the natural environ- ment.			
Strongly agree	67.6	67.5	50.0
Agree	29.1	28.2	42.7
Neutral	2.4	3.2	6.2
Disagree	0.7	0.0	0.6
Strongly disagree	0.2	1.2	0.6
Total: Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Mean ^a	1.4	1.4	1.6
Number	413	252	178

^aThe values used to compute the mean score are: 1 = Strongly agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly disagree.

TABLE F-1. (continued)

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Deer	Wildlife	Disinterested
	Enthusiasts	Enthusiasts	
	Percent		
That wildlife are included in educational materials as the subject for learning more about nature.			
Strongly agree	58.8	60.5	43.3
Agree	36.2	35.5	48.9
Neutral	3.8	3.5	6.7
Disagree	0.7	0.0	0.0
Strongly disagree	0.5	0.5	1.1
Total: Percent	100.0	100.0	100.0
Mean	1.5	1.4	1.7
Number	420	256	180
That I understand more about the behavior of wildlife.			
Strongly agree	42.4	50.4	21.4
Agree	50.0	40.7	61.0
Neutral	7.1	7.4	17.0
Disagree	0.5	1.2	0.0
Strongly disagree	0.0	0.4	0.5
Total: Percent	100.0	100.0	100.0
Mean	1.7	1.6	2.0
Number	420	258	182
That I observe or photograph wildlife.			
Strongly agree	38.4	44.4	11.8
Agree	49.9	43.5	51.7
Neutral	10.7	11.3	30.9
Disagree	0.5	0.0	4.5
Strongly disagree	0.5	0.8	1.1
Total: Percent	100.0	100.0	100.0
Mean	1.7	1.7	2.3
Number	411	248	178
That I talk about wildlife with family and friends.			
Strongly agree	30.9	32.8	7.9
Agree	45.1	41.2	42.7
Neutral	21.1	24.0	44.4
Disagree	2.5	1.6	3.4
Strongly disagree	0.5	0.4	1.7
Total: Percent	100.0	100.0	100.0
Mean	2.0	2.0	2.5
Number	408	250	178

TABLE F-1. (continued)

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Deer Enthusiasts	Wildlife Enthusiasts	Disinterested Percent
That I see wildlife in books, movies, paintings or photographs.			
Strongly agree	24.3	29.8	16.9
Agree	51.7	46.1	44.9
Neutral	20.1	19.2	32.0
Disagree	2.9	1.6	3.4
Strongly disagree	1.0	3.3	2.8
Total: Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Mean	2.0	2.0	2.3
Number	408	245	178
That I express opinions about wildlife and their management to public officials or to officers of private conservation organizations.			
Strongly agree	17.4	24.3	8.4
Agree	40.7	32.8	33.5
Neutral	36.5	38.1	51.4
Disagree	3.9	4.0	4.5
Strongly disagree	1.5	0.8	2.2
Total: Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Mean	2.3	2.2	2.6
Number	408	247	179
CONSUMPTIVE/ECONOMIC- USE BELIEFS			
That game animals are managed for an annual harvest for human use without harming the future of the wildlife population.			
Strongly agree	38.8	32.9	23.8
Agree	32.4	36.5	39.2
Neutral	19.8	14.9	24.3
Disagree	3.1	7.5	7.7
Strongly disagree	6.0	8.2	5.0
Total: Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Mean	2.1	2.2	2.3
Number	420	255	181

TABLE F-1. (continued)

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Deer Enthusiasts	Wildlife Enthusiasts	Disinterested
	Percent		
That local economies benefit from the sale of equipment, supplies, or services related to wildlife recreation.			
Strongly agree	13.9	13.4	9.9
Agree	42.1	32.8	34.3
Neutral	32.3	37.5	42.5
Disagree	8.1	10.3	8.3
Strongly disagree	3.6	5.9	5.0
Total: Percent	100.0	100.0	100.0
Mean	2.5	2.6	2.6
Number	418	253	181
That I hunt game animals for food.			
Strongly agree	14.6	10.7	8.8
Agree	20.5	13.0	13.3
Neutral	19.6	25.3	19.9
Disagree	15.3	14.6	21.0
Strongly disagree	30.1	36.4	37.0
Total: Percent	100.0	100.0	100.0
Mean	3.3	3.5	3.6
Number	419	253	181
That I hunt game animals for recreation.			
Strongly agree	15.0	10.5	8.4
Agree	15.7	10.5	9.6
Neutral	15.0	18.1	13.5
Disagree	12.1	12.1	12.4
Strongly disagree	42.3	48.8	56.2
Total: Percent	100.0	100.0	100.0
Mean	3.5	3.8	4.0
Number	414	248	178
That I trap furbearing animals for the sale of fur or pelts.			
Strongly agree	1.7	1.6	1.1
Agree	3.9	3.3	3.9
Neutral	19.0	21.5	12.4
Disagree	16.7	12.2	18.5
Strongly disagree	58.6	61.4	64.0
Total: Percent	100.0	100.0	100.0
Mean	4.3	4.3	4.4
Number	406	246	178

TABLE F-1. (continued)

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Deer Enthusiasts	Wildlife Enthusiasts	Disinterested
		Percent	
PROBLEM-TOLERANCE BELIEFS			
That I tolerate the ordinary personal safety hazards associated with some wildlife.			
Strongly agree	23.7	32.5	11.6
Agree	58.8	53.7	61.9
Neutral	14.1	10.6	21.0
Disagree	1.9	1.6	5.0
Strongly disagree	1.4	1.6	0.6
Total: Percent	100.0	100.0	100.0
Mean	2.0	1.9	2.2
Number	417	255	181
That I tolerate ordinary wildlife nuisance problems.			
Strongly agree	26.0	32.1	12.5
Agree	49.1	49.0	50.0
Neutral	17.9	14.0	31.8
Disagree	3.4	3.3	4.5
Strongly disagree	3.4	1.6	1.1
Total: Percent	100.0	100.0	100.0
Mean	2.1	1.9	2.3
Number	407	243	176
That I tolerate ordinary levels of property damage by wildlife.			
Strongly agree	17.5	27.6	10.7
Agree	54.7	50.4	56.2
Neutral	23.8	16.0	28.1
Disagree	2.9	4.8	3.4
Strongly disagree	1.0	1.2	1.7
Total: Percent	100.0	100.0	100.0
Mean	2.2	2.0	2.3
Number	411	250	178
That I tolerate the ordinary risk of wildlife transmitting disease to humans or domestic animals.			
Strongly agree	12.3	16.9	7.7
Agree	44.7	45.1	42.5
Neutral	23.3	20.8	24.9
Disagree	12.5	11.4	20.4
Strongly disagree	7.2	5.9	4.4
Total: Percent	100.0	100.0	100.0
Mean	2.6	2.4	2.7
Number	416	255	181

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APPENDIX G:

LANDOWNER SAMPLING PROCEDURE

LANDOWNER SAMPLING PROCEDURE

Sampling for the landowner survey was conducted in the following manner:

Step 1. A list was made of the town located wholly within each range. A systematic sample of 1/4 of the towns in the Agricultural and Transitional ranges was taken. Due to the small number of towns located wholly within the Central range, 1/2 of the towns there were sampled; in addition, the portion of the Town of Osceola (Lewis County) located within DMU 34 was also chosen to be sampled from to represent the interests of landowners in the Tug Hill portion of the Central Range.

Step 2. The sample size for each landowner type in each range (i.e., 70) was divided by the number of towns per range selected in Step 1 to determine the number of landowners to be selected per town per range.

Step 3. For each town, the number of pages of taxable property listings was divided by the number of landowners to be selected from that town. This established the sampling interval (the "every nth page" number). The nth page was turned to and the first property listing that satisfied the permanent resident definition was selected; the "nth" page was returned to and the first property listing that satisfied the seasonal resident definition was selected. This process was repeated on the 2 x nth page, and so on until the quota for a particular town was filled.

During the sampling process, it was found that the quota of seasonal residents could not be obtained for certain towns. When this occurred, the quota for a town was filled by sampling seasonal residents from a neighboring town.

APPENDIX H:

LANDOWNER WEIGHTING PROCEDURES

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
H-1	Derivation of landowner weighting factors	118

LANDOWNER WEIGHTING PROCEDURES

Step 1. The first step in this procedure is to determine the total number of permanent residents and seasonal residents in each range. See Appendix I for an explanation of how this was determined.

Step 2. Calculate the proportion of total landowners in each category (Column 1).

Step 3. Calculate the proportion of respondents in each landowner category (Column 2).

Step 4. Calculate the weight factor for each landowner category (Column 3) by dividing the proportion of total landowners in the category (from Column 1) by the proportion of respondents in the category (from Column 2).

APPENDIX H-1. Derivation of landowner weighting factors.

Landowner Category	Column 1		Column 2		Column 3
	Estimated Total Properties		Survey Response		Weight Factor
	<u>N</u>	<u>Proportion</u>	<u>N</u>	<u>Proportion</u>	
<u>Combined responses of permanent residents in the Northern Zone</u>					
Agricultural range	60,663	0.514	27	0.270	1.904
Transitional range	47,286	0.401	34	0.340	1.180
Central range	10,061	0.085	39	0.390	0.218
Total	118,010	1.000	100	1.000	
<u>Combined responses of seasonal residents in the Northern Zone</u>					
Agricultural range	3,269	0.103	43	0.349	0.295
Transitional range	19,264	0.610	36	0.293	2.082
Central range	9,064	0.287	44	0.358	0.802
Total	31,597	1.000	123	1.000	

APPENDIX I:

LANDOWNER POPULATION EXPANSION PROCEDURES

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
I-1	Estimated total properties in each range and the Northern Zone owned by permanent and seasonal residents	123
I-2	Estimated total population of landowners in each Deer Preference Type	124

LANDOWNER POPULATION EXPANSION PROCEDURES

Assumptions

Several assumptions were incorporated into the population expansion procedure and must be borne in mind when expansions are applied. The first assumption is that questionnaire nonrespondents were not interested in the survey topic (Brown and Wilkins 1978), resulting in an overestimate of the proportion of the Deer and Wildlife Enthusiast types. To compensate, nonrespondents were considered to be, in essence, Disinterested type landowners.¹

The second assumption is that a landowner owns only one parcel of land. The extent to which this assumption is violated is unknown, although there is little doubt that multiple ownership does occur. This assumption is important because data used in extrapolations is taken from property counts rather than landowner counts (as is explained in Step 1 below). The result of this assumption is that the population of landowners (of any type) is overestimated to an unknown degree. It is hoped that the portion of the overestimate associated with the number of Deer and Wildlife Enthusiasts will be compensated for by any underestimate of the Enthusiast types that occurs as a result of assuming that all nonrespondents are Disinterested, which is unlikely.

Furthermore, it should be stated once more that the NZ landowner population is different from the population of NZ residents; extrapolations should be viewed in this context. And finally, all extrapolations should be considered "best-guess" estimates, given the nature of the assumptions presented above.

¹This assumption was also made when population estimates of campers at state campgrounds and parks were calculated. However, nonrespondent campers did demonstrate an interest in outdoor recreation by their use of state campgrounds, whereas there is no similar indication that nonrespondent landowners had an interest in outdoor recreation. Therefore, it was also decided to calculate a second set of population extrapolations for campers based on the assumption that the characteristics of nonrespondent campers did not differ from those of respondent campers. As a result, population estimates of campers in each Deer Preference type were given at two levels; a conservative level based on the assumption that nonrespondents really belonged in the Disinterested type and a liberal level based on the assumption that there was no nonresponse bias. This liberal level was not calculated for landowners because it was felt that the assumption underlying the use of the liberal level was too tenuous in the case of landowners.

Procedures Used to Calculate Population Expansions

Step 1. A systematic sample of 5 percent of the pages in the taxable properties listing was selected for each town from which the landowner sample was drawn. Each property listed on a selected page was placed into 1 of 3 categories: permanent (see definition of "permanent" in Section II), seasonal (see definition of "seasonal" in Section II), or other (i.e., any taxable property that is not permanent or seasonal by definition). The number of properties (i.e., landowners) in each category in all selected towns in a range were then summed and the proportion of properties (landowners) in each category in the range was determined (Column 1 in Table I-1).

The total number of taxable properties (landowners) within a range (Total N in Column 2 in Table I-1) was calculated by summing the total number of taxable properties (landowners) in all towns or parts of towns within the range (this summary statistic is included at the end of the taxable properties listing). For towns not wholly included within a range, a determination of the number of properties (landowners) in the portion of the town within the range was made; this determination was based upon the geographic proportion of the portion of the town within the range and took into account the population distribution (used to approximate the landownership distribution) within the town. The estimated total number of properties (landowners) in each category in a range (Column 2 in Table I-1) is calculated by multiplying the total number of properties (landowners) in the range by the proportion of properties (landowners) in the category in the range (Column 1 in Table I-1).

Step 2. In this step, nonrespondents have been included in population expansion calculations as discussed in the assumptions above. Although nonrespondents have been displayed as a separate "type", they should be thought of and will be associated with the Disinterested type. The estimated population of landowners in each Deer Preference Type for each landowner category (Column 2 in Table I-2) was determined by multiplying the estimated total properties for the landowner category (the total estimated population for each landowner category depicted in Column 2 of Table I-2, as calculated in Table I-1) by the proportion of respondents in each type (Column 1 in Table I-2).

Application of Population Expansions

Estimating the population of a landowner type with a particular response to a question is done by multiplying the proportion of a type with that response by the estimated population of landowners in that type. For example, to determine the population of permanent resident Deer Enthusiasts who believe that solitude/rejuvenation is an extremely important recreation experience (see Table II-2), multiply the proportion of the type with this belief (i.e., .787) by the estimated population with this belief. Exceptions to this procedure occur in a few instances; correct procedures are footnoted on tables when necessary.

APPENDIX I-1. Estimated total properties in each range and the Northern Zone owned by landowners.

Location/Landowner Category	Column 1		Column 2
	Property Counts in Selected Towns		Estimated Total Properties
	N	Proportion	N
Agricultural range:			
Permanent	458	0.501	60,663
Seasonal	25	0.027	3,269
Other	432	0.472	57,152
Total	<u>915</u>	<u>1.000</u>	<u>121,084</u>
Transitional range:			
Permanent	337	0.270	47,286
Seasonal	138	0.110	19,264
Other	776	0.620	108,582
Total	<u>1,251</u>	<u>1.000</u>	<u>175,132</u>
Central range:			
Permanent	131	0.222	10,061
Seasonal	118	0.200	9,064
Other	342	0.578	26,194
Total	<u>591</u>	<u>1.000</u>	<u>45,319</u>
Northern Zone:			
Permanent	926	0.336	118,010
Seasonal	281	0.102	31,597
Other	1,550	0.562	191,928
Total	<u>2,757</u>	<u>1.000</u>	<u>341,535</u>

TABLE I-2. Estimated population of landowners in each Deer Preference Type.

Landowner Category/ Deer Preference Types	Column 1 Respondents		Column 2 Estimated Population
	N	Percent	N
Permanent:			
Deer Enthusiasts	70	0.391	46,142
Wildlife Enthusiasts	12	0.067	7,907
Disinterested	5	0.028	3,304
Nonrespondents	92	0.514	60,657
Total	<u>179</u>	<u>1.000</u>	<u>118,010</u>
Seasonal:			
Deer Enthusiasts	78	0.459	14,503
Wildlife Enthusiasts	17	0.100	3,160
Disinterested	9	0.053	1,674
Nonrespondents	66	0.388	12,260
Total	<u>170</u>	<u>1.000</u>	<u>31,597</u>

APPENDIX J:

LANDOWNER MAIL QUESTIONNAIRE

OUTDOOR RECREATION PARTICIPATION STUDY



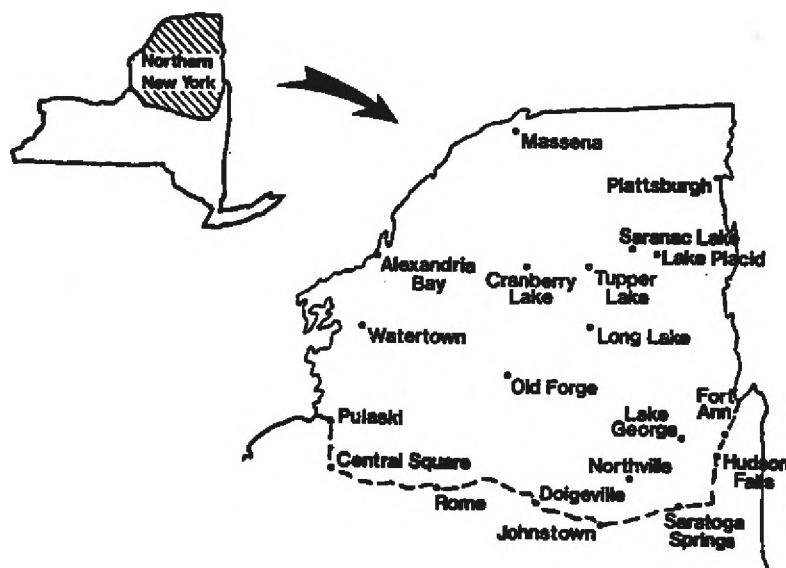
Northern New York Landowner Outdoor Recreation Participation Study

Conducted by the
Department of Natural Resources
in the New York State College of
Agriculture and Life Sciences
Cornell University

This survey seeks to learn more about the outdoor recreation activities of people who own land in Northern New York (see map below). A sample of Northern New York landowners has been chosen to provide this information. You have been selected to be part of the sample. Your cooperation is essential to the success of the survey in representing the opinion of Northern New York landowners.

We would like the addressee to complete this survey at his or her earliest possible convenience, seal it, and return it to us; postage has been provided. Your responses will remain confidential.

Thank You For Your Cooperation.



Part I. ACTIVITY PARTICIPATION

1. Listed below are several outdoor recreation activities. What activities did you participate in last year (1984) in Northern New York? (Please check all that apply.) Then, for each activity that you checked, please indicate the approximate number of days you spent participating in the activity last year in Northern New York (count any part of a day as a whole day). (Write the number on the blank line.)

<u>Activities</u>	<u>1984 Participation</u>	<u>Number of Days</u>
Backpacking.....	[]	_____
Bicycling.....	[]	_____
Boating/Canoeing.....	[]	_____
Camping.....	[]	_____
Driving for Pleasure.....	[]	_____
Fishing.....	[]	_____
Ice Fishing.....	[]	_____
Hiking.....	[]	_____
Hunting.....	[]	_____
Observing/Photographing Wildlife.....	[]	_____
Other Nature Observation/Photography...	[]	_____
Picnicking.....	[]	_____
Sightseeing/Visiting Attractions.....	[]	_____
Downhill/Crosscountry Skiing.....	[]	_____
Snowshoeing.....	[]	_____
Snowmobiling.....	[]	_____
Swimming.....	[]	_____
Walking for Pleasure.....	[]	_____
Other _____.....	[]	_____
_____.....	[]	_____

If you checked one or more of the boxes above, please go to Question 2.

If you did not check any of the boxes above, please check this box [] and return the survey by sealing it and dropping it in a mailbox; postage has been provided. Thank you for your assistance in answering this survey.

2. Listed below are five general kinds of experiences you may look forward to when you participate in outdoor recreation activities in Northern New York. Please indicate how important each general experience was to the types of outdoor activities you participated in last year in Northern New York. (Circle one number for each general experience.)

Importance of Experiences

<u>Kinds of General Experiences Sought</u>	Extremely Important	Moderately Important	Slightly Important	Not Important
	(1)	(2)	(3)	(4)
Social (Opportunity to be with friends or relatives; to meet new people)	1	2	3	4
Facilities/Attractions (Using recreation facilities such as campgrounds, trails, or boat launches; visiting attractions; enjoying historic or cultural opportunities)	1	2	3	4
Nature (Viewing mountains, rivers, or lakes; seeing wild flowers, plants, or trees; seeing, hearing wildlife)	1	2	3	4
Solitude/Rejuvenation (Feeling of relaxation, peace and quiet; opportunity to escape everyday problems)	1	2	3	4
Achievement/Challenge (Opportunity for exercise; to learn or practice outdoor skills; to challenge myself within the natural environment)	1	2	3	4

3. Listed below are four specific experiences you may look forward to when you participate in outdoor recreation activities in Northern New York. Please indicate how important each experience was to your outdoor recreation in Northern New York last year. (Circle one number for each specific experience.)

Importance of Experiences

<u>Specific Experiences Sought</u>	<u>Extremely Important</u>	<u>Moderately Important</u>	<u>Slightly Important</u>	<u>Not Important</u>
	(1)	(2)	(3)	(4)
Seeing Mountains	1	2	3	4
Seeing Rivers or Lakes	1	2	3	4
Seeing, Hearing Wildlife	1	2	3	4
Seeing Wild Flowers, Plants, or Trees	1	2	3	4

4. Now, thinking back over all of your outdoor recreation activities in Northern New York in 1984, how satisfied were you with your overall experiences? (Please circle one number.)

<u>Extremely Dissatisfied</u>			<u>Neutral</u>			<u>Extremely Satisfied</u>
1	2	3	4	5	6	7

II. NORTHERN NEW YORK WILDLIFE INTERESTS

5. For each of the kinds of wildlife listed below, please indicate whether you:

- (a) expected to observe or hear that kind of wildlife in Northern New York in 1984;
- (b) actually observed or heard that kind of wildlife in Northern New York in 1984; and
- (c) observed or heard that kind of wildlife in Northern New York in 1982 or 1983.

(Check all that apply.)

	a) I expected to observe/ hear in 1984	b) I actually observed/ heard in 1984	c) I observed/ heard in 1982 or 1983
Songbirds.....	[]	[]	[]
Waterfowl (Duck, Loon).....	[]	[]	[]
Birds of Prey (Hawk, Owl).....	[]	[]	[]
Other Birds (Grouse, Heron, etc.).....	[]	[]	[]
Beaver.....	[]	[]	[]
Bear.....	[]	[]	[]
Deer.....	[]	[]	[]
Coyote, Bobcat, Fox...	[]	[]	[]
Other Mammals (Chipmunk, Squirrel, Rabbit, Hare, Raccoon, Otter, etc.).....	[]	[]	[]
Other (please specify): _____	[]	[]	[]
No Animals.....	[]	[]	[]

6a. **How satisfied were you with your wildlife experiences in Northern New York in 1984?** *(Please circle one number and then answer Question 6b.)*

<u>Extremely</u> <u>Dissatisfied</u>				<u>Neutral</u>			<u>Extremely</u> <u>Satisfied</u>
1	2	3	4	5	6	7	

6b. **Please explain the reason for your answer to Question 6a:**

7. **Please list the three wild animals that you most like to see or hear in Northern New York.** *(List by your order of preference.)*

Like to See/Hear the Most: _____

Like to See/Hear 2nd Most: _____

Like to See/Hear 3rd Most: _____

III. FACILITY AND SERVICE PREFERENCES

8. Listed below are possible additions or improvements that could be made in recreation facilities or tourism-related services in Northern New York. Please rate each of the possible additions or improvements in terms of how desirable it is to serve your recreation needs. (Circle one number for each addition or improvement.)

<u>Possible Improvements</u>	<i>Very Desirable</i>	<i>Desirable</i>	<i>Neither Desirable nor Undesirable</i>	<i>Undesirable</i>	<i>Very Undesirable</i>
	(1)	(2)	(3)	(4)	(5)
More amusement parks, theme parks, arcades.	1	2	3	4	5
More hiking trails or boat launch areas.	1	2	3	4	5
Creation of wildlife observation areas or displays that explain the natural history of various wildlife species.	1	2	3	4	5
More retail and service facilities to meet your recreation needs (restaurants, hotel/motels, gas stations, stores, etc.).	1	2	3	4	5
More information about recreation opportunities.	1	2	3	4	5
Make highways more scenic; create more scenic overlooks.	1	2	3	4	5
More campgrounds or picnic areas.	1	2	3	4	5

9a. **What is your preference for increasing opportunities to observe deer and/or learn more about deer in Northern New York? (Please circle only one number.)**

- 1 I prefer that nothing be done to increase these opportunities. (Go to Question 10)
- 2 I prefer an increase in the likelihood that deer will be seen in the wild. (Answer Questions 9b + 9c)
- 3 I prefer the establishment of facilities where you can see and learn about deer. (Answer Questions 9b + 9c)

9b. **Please check below the approaches you would prefer to increase opportunities to observe deer and/or learn more about deer in Northern New York. (Check all that apply.)**

- Establish clearings and food plantings to increase the likelihood that deer will be seen from certain roads.
- Place hiking trails where deer sightings are most likely.
- Distribute newsletters and hold seminars to provide more information about deer.
- Keep deer in large, fenced viewing areas with a wildlife biologist on hand to answer questions.
- Open interpretive centers that would explain the natural history of deer in Northern New York.
- Establish areas where deer can be photographed.
- None of the above.
- Other (please specify): _____

9c. **Now, circle the one action listed in Question 9b above that you would most like to see occur in Northern New York.**

IV. GENERAL WILDLIFE INTERESTS

10. **People have different interests in wildlife. Some of these interests are listed below. Please indicate how you feel about the following by your agreement or disagreement with each statement. (Indicate your response for each statement by circling the appropriate number.)**

<u>It Is Important To Me Personally:</u>	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly Disagree (5)
That I talk about wildlife with family and friends.....	1	2	3	4	5
That I observe or photograph wildlife.	1	2	3	4	5
That I tolerate ordinary wildlife nuisance problems.....	1	2	3	4	5
That I trap furbearing animals for the sale of fur or pelts.....	1	2	3	4	5
That I consider the presence of wildlife as a sign of the quality of the natural environment.....	1	2	3	4	5
That I hunt game animals for recreation.....	1	2	3	4	5
That I see wildlife in books, movies, paintings, or photographs.....	1	2	3	4	5
That I tolerate ordinary levels of property damage by wildlife.....	1	2	3	4	5
That I express opinions about wildlife and their management to public officials or to officers of private conservation organizations.....	1	2	3	4	5
That I know that wildlife exist in nature.....	1	2	3	4	5

<u>It Is Important To Me Personally:</u>	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
	(1)	(2)	(3)	(4)	(5)
That I tolerate the ordinary risk of wildlife transmitting disease to humans or domestic animals.....	1	2	3	4	5
That I hunt game animals for food....	1	2	3	4	5
That local economies benefit from the sale of equipment, supplies, or services related to wildlife recreation.....	1	2	3	4	5
That I appreciate the role that wildlife play in the natural environment..	1	2	3	4	5
That wildlife are included in educational materials as the subject for learning more about nature.....	1	2	3	4	5
That game animals are managed for an annual harvest for human use without harming the future of the wildlife population.....	1	2	3	4	5
That I tolerate the ordinary personal safety hazards associated with some wildlife.....	1	2	3	4	5
That I understand more about the behavior of wildlife.....	1	2	3	4	5

11. What would be the best way(s) for the DEC to get information about recreation opportunities in Northern New York to you? _____
- _____
- _____

V. BACKGROUND INFORMATION

The following information will be kept strictly confidential and will not be associated with your name.

12. What is your age? _____ Years

13. Please indicate the highest grade or year in school you have completed. *(Please circle one number.)*

Elementary School	1	2	3	4	5	6	7	8
High/Vocational School	9	10	11	12				
College/Technical School	13	14	15	16				
Graduate School	17	18	19	20	21	22		

14. Which of the following best describes the population of the area where you currently live? *(Please circle one number.)*

- 1 Rural
- 2 Village of Under 2,500
- 3 Village of 2,500 to 4,999
- 4 Village or Small City of 5,000 to 24,999
- 5 City of 25,000 to 99,999
- 6 City of 100,000 or More

15. What type of land do you own in Northern New York? *(Please check all that apply.)*

- Land With Year-Round Residence
- Land With Seasonal Residence, Camp, Or Cottage
- Land Without Inhabitable Buildings

16. How many years have you owned land in Northern New York?

I have owned land for _____ years in Northern New York.
(number)

Please use the space below for any additional comments you wish to make.

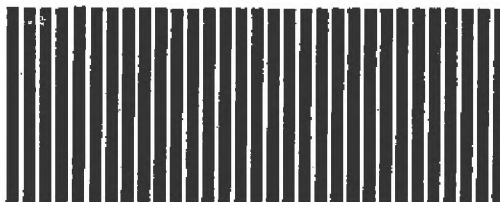
Thank You For Your Time And Effort!

To Return This Questionnaire, simply seal it (postage has been provided) and drop it in the nearest mailbox.

Nº 681



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CORNELL UNIVERSITY
Natural Resources, D. Decker
P.O. Box DH
Ithaca, New York 14851-9978



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APPENDIX K:

LANDOWNER COVER AND FOLLOW-UP LETTERS



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Natural Resources
Fernow Hall, Ithaca, N. Y. 14853-0188

Fishery Science
Forest Science
Wildlife Science
Natural Resources
Resource Policy
and Planning
Aquatic Science

April 22, 1985

Dear Sir or Madam:

There are many opportunities to participate in recreation or leisure activities in the Northern New York region (please see map on inside front cover of enclosed questionnaire). The New York State Department of Environmental Conservation has asked Cornell University to learn more about the 1984 recreational experiences of people who own land in Northern New York, such as the kinds of activities they participated in and how satisfied they were with their experiences.

To obtain this information, we are surveying a small sample of New York State residents who own land in Northern New York. Some of these people are residents of Northern New York and others own land in Northern New York but live in other parts of the state. You have been chosen to be part of this sample and, for the results of this study to represent accurately the experiences and opinions of Northern New York landowners, it is very important for you to complete the enclosed questionnaire. Your responses are needed even if you participated in few recreation or leisure activities in Northern New York last year.

You may be assured of complete confidentiality. The questionnaire has an identification number on it for mailing purposes. This is so we can check your name off our mailing list when your questionnaire is returned so we do not bother you with a reminder. Your name and address will never be associated with your reply and will never be made available to anyone.

To return the completed questionnaire, simply seal it and drop it into any mailbox. Return postage has been provided.

Thank you for your help.

Sincerely,

Daniel J. Decker
Daniel J. Decker
Research Associate
Natural Resources

DJD:k
enclosure



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Natural Resources
Fernow Hall, Ithaca, N. Y. 14853-0188

Fishery Science
Forest Science
Wildlife Science
Natural Resources
Resource Policy
and Planning
Aquatic Science

May 1, 1985

Dear Sir or Madam:

About a week ago we sent you a questionnaire concerning your participation in recreation activities in Northern New York during 1984. You may have already returned your questionnaire, and if so, we would like to thank you. If you have not yet had an opportunity to complete the questionnaire, we would appreciate it if you would take a few minutes now to fill it out and return it so that we can process all replies as soon as possible.

Please understand that your completed questionnaire is very important to the success of the study. Your response will greatly help us learn more about the recreation participation of landowners in Northern New York.

All information you provide will be kept confidential and is never associated with your name.

Thank you very much for your help.

Sincerely,

A handwritten signature in cursive script that reads "Daniel J. Decker".

Daniel J. Decker
Research Associate
Natural Resources

DJD:k



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Natural Resources
Fernow Hall, Ithaca, N. Y. 14853-0188

Fishery Science
Forest Science
Wildlife Science
Natural Resources
Resource Policy
and Planning
Aquatic Science

Dear Sir or Madam:

About four weeks ago we sent you a questionnaire concerning your participation in recreation or leisure activities in Northern New York during 1984. To date, we have not received your completed questionnaire. We realize that you may be busy, but your response is important to the validity of the study findings.

In case you have misplaced the earlier questionnaire, we have enclosed another for your convenience (postage has been provided). Please fill out the booklet as soon as possible. If you have already returned the questionnaire, thank you for your cooperation.

All information you provide will be kept strictly confidential and is never associated with your name.

Your promptness in filling out and returning the questionnaire will be greatly appreciated. Thank you for your time and effort.

Sincerely,

Daniel J. Decker
Research Associate
Natural Resources

DJD:k
enclosure



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Natural Resources
Fernow Hall, Ithaca, N. Y. 14853-0188

Fishery Science
Forest Science
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Natural Resources
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Aquatic Science

May 22, 1985

Dear Sir or Madam:

I am writing to you about our study of recreation and leisure activity participation in Northern New York. We have not yet received your completed questionnaire.

The large number of questionnaires returned is very encouraging. But, whether we will be able to describe recreation participation accurately depends on you and others who have not yet responded. This is because our past experience suggests that those of you who have not yet sent in your questionnaire may have had quite different recreation experiences from those who have. The usefulness of our results depends on how accurately we are able to describe recreation participation in Northern New York.

It is for this reason that I am sending this request for you to fill out and return the questionnaire we mailed you a week ago. Please share your Northern New York recreation or leisure experiences with us.

Your contribution to the success of the study will be appreciated greatly.

Sincerely yours,

A handwritten signature in cursive script that reads "Daniel J. Decker".

Daniel J. Decker
Research Associate
Natural Resources

DJD:k

APPENDIX L:

LANDOWNER SAMPLE SIZES AND RESPONSE RATES

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
L-1	Landowner sample sizes and response rates	146

TABLE L-1. Landowner sample sizes and response rates.

Range/ Landowner Category	Initial Sample Size	Nondeliver- able Number	Total Response Rate		Usable Response Rate	
	Number		Number	Percent ^a	Number	Percent ^b
Agricultural:						
Permanent	70	3	32	47.8	27	40.3
Seasonal	70	1	46	66.7	43	62.3
Total	<u>140</u>	<u>4</u>	<u>78</u>	57.4	<u>70</u>	51.5
Transitional:						
Permanent	70	4	37	56.1	34	51.5
Seasonal	70	4	45	68.2	36	54.5
Total	<u>140</u>	<u>8</u>	<u>84</u>	63.6	<u>71</u>	53.8
Central:						
Permanent	70	1	41	59.4	39	56.5
Seasonal	70	2	46	67.6	44	64.7
Total	<u>140</u>	<u>3</u>	<u>87</u>	63.0	<u>83</u>	60.1
Northern Zone:						
Permanent	210	8	110	54.5	100	49.5
Seasonal	210	7	137	67.5	123	60.6
Total	420	15	247	61.0	223	55.1

^aTotal response rate percent is calculated by subtracting the number nondeliverable from the initial sample size and then dividing this total into the total response rate number. In addition to usable (i.e., codable) responses, total responses include responses from individuals who (1) did not participate in outdoor recreation activities in 1984 and therefore were not asked to complete the questionnaire, (2) no longer own land in northern New York, (3) reported the death of the addressee, or (4) refused to answer the questionnaire.

^bUsable response rate percent is calculated by subtracting the number nondeliverable from the initial sample size and then dividing this total into the usable response rate number.

APPENDIX M:

SURVEY OF LANDOWNERS' INTERESTS IN DEER:

SUPPLEMENTARY DATA

<u>TABLE</u>	<u>TITLE</u>	<u>PAGE</u>
M-1	LDE's attitudes toward and values of wildlife (arranged by attitude and value dimensions), by resident type . . .	148

TABLE M-1. LDE's attitudes toward and values of wildlife (arranged by attitude and value dimensions), by residence type.

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Permanent	Seasonal
	Percent	
<u>NONCONSUMPTIVE/NONECONOMIC-USE BELIEFS</u>		
That I know that wildlife exist in nature.		
Strongly agree	59.0	62.0
Agree	39.3	34.3
Neutral	1.8	3.7
Disagree	0.0	0.0
Strongly disagree	0.0	0.0
Total: Percent	100.0	100.0
Mean ^a	1.4	1.4
Number	67	77
That I appreciate the role that wildlife play in the natural environment.		
Strongly agree	43.2	55.7
Agree	51.8	43.3
Neutral	5.0	1.0
Disagree	0.0	0.0
Strongly disagree	0.0	0.0
Total: Percent	100.0	100.0
Mean ^a	1.6	1.4
Number	66	78
That I consider the presence of wildlife as a sign of the quality of the natural environment.		
Strongly agree	54.0	31.1
Agree	37.7	11.9
Neutral	8.4	17.8
Disagree	0.0	12.5
Strongly disagree	0.0	26.7
Total: Percent	100.0	100.0
Mean ^a	1.5	1.6
Number	68	78

^aThe values used to compute the mean score are: 1 = Strongly agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly disagree.

TABLE M-1. (continued)

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Permanent	Seasonal
	Percent	
That wildlife are included in educational materials as the subject for learning more about nature.		
Strongly agree	37.7	55.3
Agree	61.6	35.8
Neutral	0.3	6.2
Disagree	0.0	0.0
Strongly disagree	0.3	2.7
Total: Percent	100.0	100.0
Mean	1.6	1.6
Number	66	77
That I observe or photograph wildlife.		
Strongly agree	43.7	36.7
Agree	45.8	44.2
Neutral	10.5	18.3
Disagree	0.0	0.0
Strongly disagree	0.0	0.8
Total: Percent	100.0	100.0
Mean	1.7	1.8
Number	66	73
That I understand more about the behavior of wildlife.		
Strongly agree	28.9	37.4
Agree	59.1	50.0
Neutral	12.0	11.1
Disagree	0.0	0.0
Strongly disagree	0.0	1.5
Total: Percent	100.0	100.0
Mean	1.8	1.8
Number	65	72
That I see wildlife in books, movies, paintings, or photographs.		
Strongly agree	28.2	28.7
Agree	48.4	54.4
Neutral	20.2	17.0
Disagree	2.9	0.0
Strongly disagree	0.3	0.0
Total: Percent	100.0	100.0
Mean	2.0	1.9
Number	65	73

TABLE M-1. (continued)

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Permanent	Seasonal
	Percent	
That I talk about wildlife with family and friends.		
Strongly agree	25.3	39.4
Agree	42.8	46.2
Neutral	31.8	10.2
Disagree	0.0	2.7
Strongly disagree	0.0	1.4
Total: Percent	100.0	100.0
Mean	2.1	1.8
Number	68	76
That I express opinions about wildlife and their management to public officials or to officers of private conservation organizations.		
Strongly agree	19.3	23.7
Agree	27.4	33.5
Neutral	45.3	35.0
Disagree	8.1	7.7
Strongly disagree	0.0	0.0
Total: Percent	100.0	100.0
Mean	2.4	2.3
Number	67	74
<u>CONSUMPTIVE/ECONOMIC-USE BELIEFS</u>		
That game animals are managed for an annual harvest for human use without harming the future wildlife population.		
Strongly agree	23.0	38.4
Agree	64.5	37.1
Neutral	9.7	14.9
Disagree	2.8	2.8
Strongly disagree	0.0	6.7
Total: Percent	100.0	100.0
Mean	1.9	2.0
Number	65	78

TABLE M-1. (continued)

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Permanent	Seasonal
	Percent	
That local economies benefit from the sale of equipment, supplies, or services related to wildlife recreation.		
Strongly agree	13.0	22.0
Agree	51.9	45.2
Neutral	29.0	25.8
Disagree	0.3	5.6
Strongly disagree	5.8	1.5
Total: Percent	100.0	100.0
Mean	2.3	2.2
Number	66	74
That I hunt game animals for food.		
Strongly agree	19.9	23.4
Agree	29.4	22.6
Neutral	18.4	14.2
Disagree	21.1	16.5
Strongly agree	11.2	23.4
Total: Percent	100.0	100.0
Mean	2.7	2.9
Number	65	75
That I hunt game animals for recreation.		
Strongly agree	25.6	31.1
Agree	19.2	11.9
Neutral	18.5	17.8
Disagree	23.5	12.5
Strongly disagree	13.3	26.7
Total: Percent	100.0	100.0
Mean	2.8	2.9
Number	65	76
That I trap furbearing animals for sale of fur pelts.		
Strongly agree	6.5	8.6
Agree	2.9	4.4
Neutral	25.8	23.7
Disagree	24.7	15.1
Strongly disagree	40.1	48.2
Total: Percent	100.0	100.0
Mean	3.9	3.9
Number	65	73

TABLE M-1. (continued)

ATTITUDE AND VALUE DIMENSIONS/ Attitude and Value Statements	Permanent	Seasonal
	Percent	
<u>PROBLEM-TOLERANCE BELIEFS</u>		
That I tolerate the ordinary personal safety hazards associated with some wildlife.		
Strongly agree	9.1	18.1
Agree	65.4	59.2
Neutral	21.7	19.1
Disagree	0.7	1.0
Strongly disagree	3.2	2.7
Total: Percent	<u>100.0</u>	<u>100.0</u>
Mean	2.2	2.1
Number	66	78
That I tolerate ordinary levels of property damage by wildlife.		
Strongly agree	13.5	23.4
Agree	53.1	47.5
Neutral	27.9	23.8
Disagree	5.5	2.7
Strongly disagree	0.0	2.7
Total: Percent	<u>100.0</u>	<u>100.0</u>
Mean		
Number		
That I tolerate ordinary wildlife nuisance problems.		
Strongly agree	12.4	18.1
Agree	54.5	50.1
Neutral	23.3	16.6
Disagree	9.5	8.3
Strongly disagree	0.3	7.0
Total: Percent	<u>100.0</u>	<u>100.0</u>
Mean	2.3	2.4
Number	68	75
That I tolerate the ordinary risk of wildlife transmitting disease to humans or domestic animals.		
Strongly agree	1.0	7.3
Agree	44.2	31.9
Neutral	39.9	34.1
Disagree	10.3	14.3
Strongly disagree	4.7	12.4
Total: Percent	<u>100.0</u>	<u>100.0</u>
Mean	2.7	2.9
Number	66	76



