

Southeastern Adirondack Forest Preserve Visitor Study

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INTRODUCTION

The Adirondack Park State Land Master Plan (APSLMP) requires the development of Unit Management Plans (UMPs) on New York State Forest Preserve lands within the Adirondack Park. The theme of the APSLMP is “that the protection and preservation of the natural resources of the state lands within the Park must be paramount. Human use and enjoyment of those lands should be permitted and encouraged, so long as the resources in their physical and biological context as well as their social or psychological aspects are not degraded.” (APA and NYSDEC, 2001, p. 1)

The Adirondack Park Agency (APA) sets the policy for UMP development of public lands within the Adirondack Park via the APSLMP. The New York State Department of Environmental Conservation (DEC) is in charge of developing and implementing UMPs for the Forest Preserve lands within the Adirondack Park. The APSLMP specifically states that UMP development should include the following five types of information and analyses:

1. “an inventory, at a level of detail appropriate to the area, of the natural, scenic, cultural, fish and wildlife (including game and non-game species) and other appropriate resources of the area and an analysis of the area's ecosystems;
2. an inventory of all existing facilities for public or administrative use;
3. an inventory of the types and extent of actual and projected public use of the area;
4. an assessment of the impact of actual and projected public use on the resources, ecosystems and public enjoyment of the area with particular attention to portions of the area threatened by overuse; and,
5. an assessment of the physical, biological and social carrying capacity of the area with particular attention to portions of the area threatened by overuse in light of its resource limitations and its classification under the master plan.” (APA and NYSDEC 2001, p. 10)

This study addresses the third type of information required by studying current visitor characteristics, their current use patterns, and the extent and type of visitor use and experiences. The information compiled can be used to project future use as well as begin to address the more complex assessments required in elements #4 and #5 listed above.

The objectives for this study included: (1) design and conduct field interviews and mail surveys to develop (a) a profile of visitor characteristics for those visitors entering and recreating on Forest Preserve lands (e.g., residence location, seasonality of use), (b) a characterization of the type and location of visitor activities and experiences on Forest Preserve lands (e.g., location and intensity of use, experience use history, recreation activities), (c) visitor satisfaction with their experiences on the Forest Preserve lands and within the Adirondack Park, and (d) their future intended behavior related to Forest Preserve lands;

(2) estimate visitor compliance with signing in at trailhead registers on Forest Preserve lands (comparison is to electronic trail counters); and (3) cooperate with DEC staff to create a trailhead registration data entry and analysis system as the basis for estimating spatial and temporal patterns of visitor use within the UMPs.

The long-term work plan is to conduct annual visitor research in each of four Adirondack Park quadrants of visitors using Forest Preserve lands. In the first year of data collection, the study was conducted on all Forest Preserve UMP areas with a classification of Wild Forest, Primitive, Canoe, and Wilderness in the southeastern area of the Adirondack Park. This information was designed to provide baseline information on visitor use and trip experiences and support the DEC UMP planning efforts under the APSLMP directives.

Southeastern Adirondack Forest Preserve Description

The southeastern quadrant of the Adirondack Park is located in the counties of Essex, Fulton, Hamilton, Saratoga, Warren, and Washington (see figure 1). The southeastern quadrant includes ten UMP areas of Forest Preserve land (listed in table 1) with an approximate total of 666,378 acres of land (APA, 2001). The landscape is dominated by mixed hardwood trees, hemlock and spruce stands, and large white pines along shorelines. The relatively low topography ranges in elevation from 800 feet to over 3,800 feet. Waterbodies of all sizes are evident throughout the area; for example, the four wilderness areas and one primitive area include 140 water bodies varying in size from small ponds to lakes.

The predominant recreational uses of the southeastern quadrant of the Adirondack Park are picnicking, hiking, fishing, hunting, camping, kayaking, canoeing, power boating, backpacking, snowmobiling, ski touring, and sight seeing. Seasonal use varies depending on location and activity type, from hiking to summits for vista views, swimming, or fishing in waterbodies in the summer to fall hunting, and from winter snowmobiling to spring trout fishing. Recreation facilities on Forest Preserve lands are minimal in development scale and are appropriate to the unit guidelines under the APSLMP. For example, the four wild forest areas have 171 miles of snowmobile trails. Wilderness and primitive areas include several hundred primitive tent sites and more than 20 lean-tos. The ten management areas in this quadrant of the Adirondack Park include over 230 miles of hiking trails and more than 55 miles of horse trail. Water access to ponds, lakes and rivers include power boat launches or carry in launches for canoes and kayaks as appropriate to the management area and water body.

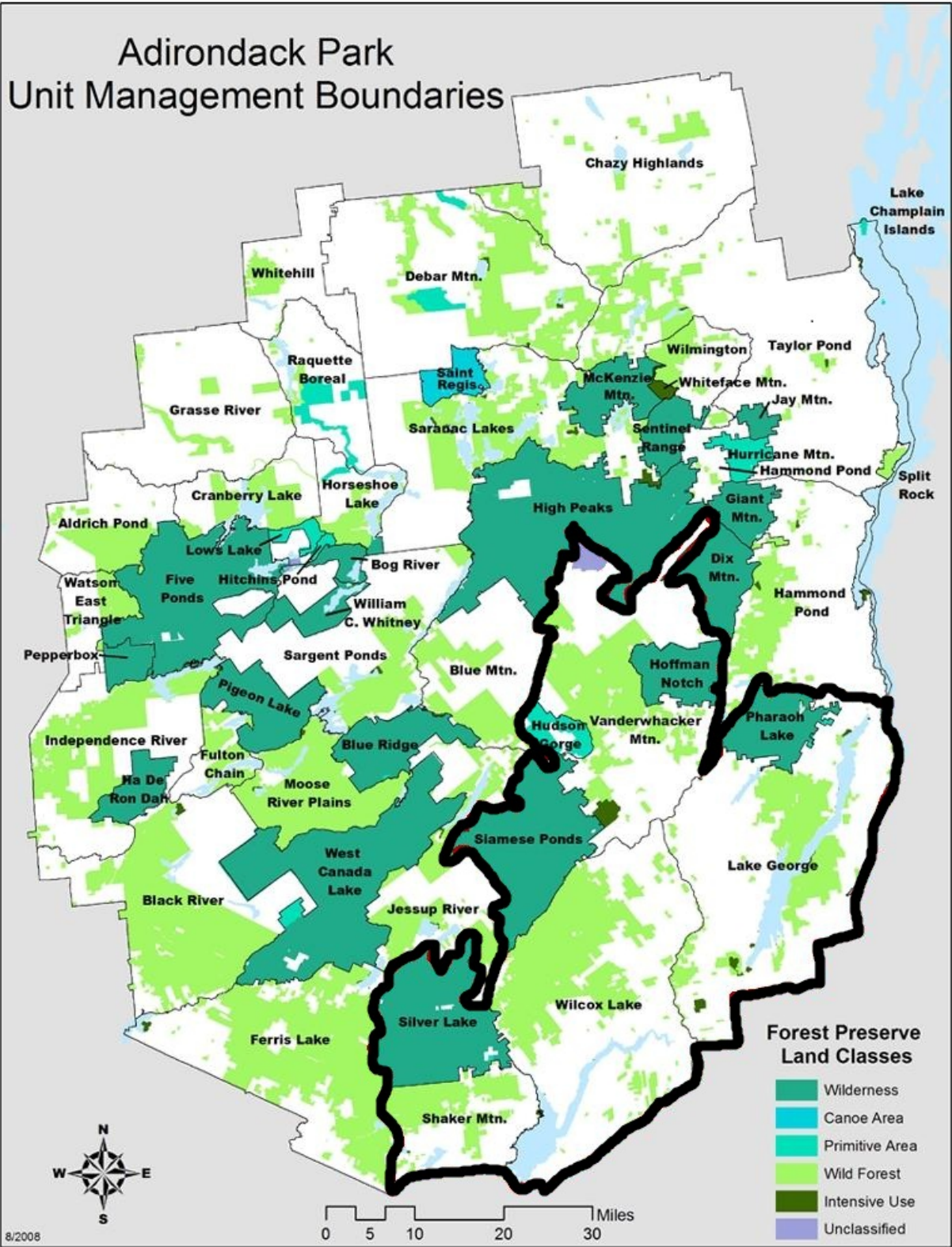


Figure 1. 2008-09 Visitor Study area on Forest Preserve lands in the southeastern Adirondack Park.

Table 1. UMP areas on Forest Preserve lands in the southeastern Adirondack Park (APSLMP, 2001 and NYSDEC 2009 website).

FP Unit Name	Unit Classification	Approximate Acreage
Hoffman Notch	Wilderness	36,231
Hudson Gorge	Primitive Area	17,170
Hudson River Special Management Area (part of LGWF)	Special Management area in Wild Forest	5,500
Lake George	Wild Forest	71,300
Pharaoh Lakes	Wilderness	45,883
Shaker Mountain	Wild Forest	40,500
Siamese Ponds	Wilderness	112,524
Silver Lake	Wilderness	105,270
Vanderwhacker Mountain	Wild Forest	92,000
Wilcox Lake	Wild Forest	140,000

Unit Classifications

The following definitions are provided in the Adirondack Park SLMP (APA and NYSDEC 2001) and are necessary to understand the context in which this visitor study on the Forest Preserve lands was conducted:

- “A **wilderness** area, in contrast with those areas where man and his own works dominate the landscape, is an area where the earth and its community of life are untrammled by man--where man himself is a visitor who does not remain. A wilderness area is further defined to mean an area of state land or water having a primeval character, without significant improvement or permanent human habitation, which is protected and managed so as to preserve, enhance and restore, where necessary, its natural conditions, and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least ten thousand acres of contiguous land and water or is of sufficient size and character as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological or other features of scientific, educational, scenic or historical value.” (p. 20)
- “A **primitive** area is an area of land or water that is either: (1) essentially wilderness in character but, (a) contains structures, improvements, or uses that are inconsistent with

wilderness, as defined, and whose removal, though a long term objective, cannot be provided for by a fixed deadline, and/or, (b) contains, or is contiguous to, private lands that are of a size and influence to prevent wilderness designation; or, (2) of a size and character not meeting wilderness standards, but where the fragility of the resource or other factors require wilderness management.” (p. 26)

- “A **wild forest** area is an area where the resources permit a somewhat higher degree of human use than in wilderness, primitive or canoe areas, while retaining an essentially wild character. A wild forest area is further defined as an area that frequently lacks the sense of remoteness of wilderness, primitive or canoe areas and that permits a wide variety of outdoor recreation.” (p. 32)

RESEARCH METHODS

Field research on recreational use was conducted on Forest Preserve lands in the southeastern Adirondack Park from December 1, 2008 through November 30, 2009: (1) winter season from December 1, 2008 through March 31, 2009; (2) spring season from April 1 through May 31, 2009; (3) summer season from June 1 through August 31, 2009; and (4) fall season from September 1 through November 30, 2009.

The general methods used to gather data for this study are outlined below.

1. Visitor characteristics and trip characteristics within a Forest Preserve Unit: Research design was based, in part, on previous research on visitors in the Adirondack Park (Dawson et al., 2005a and 2005b; Dawson et al. 2006).

- All public access locations (over 120 sites) entering the 10 Unit areas on Forest Preserve Lands in the southeastern Adirondack Park were located by map, UMP documents, and public information sources (e.g., hiking guide books) and then field checked for feasibility as a site at which to intercept and survey users entering the public lands for recreational activities. A majority of access sites were land based in these Unit areas.
- Interviewers systematically sampled visitors at selected high, medium and low use sites across all 10 Unit areas in all four seasons. Interview sessions at each site lasted up to four hours if it was evident that visitors were present that day and the weather conditions permitted stopping visitors for an interview on that day. During longer daylight periods of the year, up to two

sites were sampled in one day; during winter's shorter daylight periods, only one site was sampled per day. During winter, if it became evident after an hour that visitor use was not occurring at that site that day, the interviewer would move to a second site for that day.

- The number of public access sites visited during the four seasons from December 1, 2008 through November 30, 2009 ranged from 70 to 97 sites depending on use rates, road conditions and other factors by season and weather conditions.
- Sampling was systematic to generally represent the visitor population; however, given the extremely highly variable nature of visitation at different sites and without prior estimates of visitor use (i.e., visitor trailhead registration database) it was not possible to design a sampling system that would allow for estimates of total annual visitor use.
- A trained interviewer requested visitors entering the Unit area at the sample access point to fill out a brief on-site visitor questionnaire regarding the trip to that Unit area. Information gathered included: length of stay, primary reason for the trip, residence location, season of use, type of user, recreational activities participated in onsite, and characteristics of visitors (see Appendix A).
- The interviewer asked those completing an on-site survey if they would be willing to also participate in a mail survey (see Appendix B) process that would be sent to the visitor's home to gather information about their overall trip within the Adirondack Park.

2. Visitor experiences within the Adirondack Park: Those visitors who filled out a brief on-site visitor questionnaire and agreed to receive a more detailed mail survey were sent the survey within one to three weeks of their field interview.

- Information gathered included: sources of information, importance of and satisfaction with various features within the management unit visited, type of recreation participated in across the Adirondack Park, substitute destinations within or outside the Adirondack Park, future planned trips to the Adirondack Park, and overall trip satisfaction (see Appendix B).
- These mail surveys were sent as soon after the visitor's trip as possible to support an accurate visitor recall about that specific trip. Up to two reminders were sent, if necessary, to achieve a relatively high mail survey response rate (Dillman 1978).

3. Estimations of visitor compliance with signing in at trailheads: The research design was based, in part, on previous research of visitors in the Adirondack Park (Dawson et al. 2005a and 2005b; Dawson et al. 2006) and established research protocols (Watson et al. 2000; Yuan et al. 1995).

- Approximately 45 of the more than 120 public access sites have a trailhead register for self registration by hikers and boaters. Active infrared automated trail counters were installed and maintained at a systematic sample of trailheads with registers for 2-4 week periods throughout the 10 units over the 12-month study period. The trail counters recorded the date and time that the users entered or exited the management unit. Active infrared trail counter sender and receiver units were installed within 50 feet on each side of the trails providing access to the areas studied. They were mounted to trees with a large diameter in an attempt to avoid false counts due to trees swaying in the wind. They were located on or near uphill or narrow portions of trail where users would likely be single file. Camouflage was utilized to further conceal the equipment to prevent theft or tampering by the users. Vegetation that could potentially cause false counts between the two units was removed.
- Trail register sheets from the trailheads were copied in the field and entered into a spreadsheet for those dates for which trail counter data was available for comparison.

4. Visitor trailhead registrations: Work was conducted in cooperation with NYSDEC staff in Albany and ESF staff located at the Adirondack Ecological Center at Newcomb, NY to build the format for data base entry and management of trailhead registration data.

- Visitor data were compiled into a Microsoft Access database for 2008 trailhead registration in the Southeastern quadrant of the Adirondack Park for all 10 units in which trailhead registers existed and records could be obtained from NYSDEC field staff.

All study data were entered into Microsoft Excel and a Statistical Package for the Social Sciences (SPSS) software package to assist in the various analyses of each data set.

RESULTS AND DISCUSSION

This section contains four subsections: (1) public access site visitor sampling efforts and locations; (2) characteristics of visitors and their trips from on-site surveys; (3) experiences of visitors as self reported in

mail surveys; and (4) self registration compliance by visitors at trailhead kiosks and estimation of visitor use.

Public Access Site Visitor Sampling Efforts and Locations

A total of 97 public access sites were visited a total of 509 separate sampling times during the 12-month period. During 66% of those 509 sampling times, the interviewer found the probability of seeing visitors to be acceptable and stayed for a period of time; during the other 34% of the time they moved to another location due to poor road conditions (e.g., snow not plowed for several miles up to parking area), no evidence of any visitors in recent days and no current use (e.g., checked trail register at low use sites), or other reasons (e.g., extremely inclement weather with no cars or visitors evident). For example, during 55% of the visits to public access sites, the roads were considered moderately rough to impassable for most vehicles due to spring wash out, muddy deep ruts, or lack of snow plowing.

Sampling duration at any site ranged from as little as ten minutes for obvious sites with no present or reasonable probability of use that day up to as much as 6.5 hours for very heavy use sites on a single sample site day. During the 509 sampling events, a total of 2,826 visitors were seen, 2,349 were talked with briefly as they approached the interviewer's location, and 1,559 were asked to participate in the survey. Of the 1,559 asked to participate, 1,331 (85%) agreed to complete an on site survey and 228 (15%) refused to participate in the onsite survey.

The sampling of visitor access sites was designed to ensure good representations of low to high use trails. The percentages of visitor access sites sampled during the study by level of trail use were: 37% on light use trails, 41% on moderate use trails, and 22% on heavy use trails. Overall, 74% of the visitor access sites sampled were where a trail register existed and 26% of the sampling events were where no trailhead register was present.

The four wilderness areas accounted for 43% of the overall visitor access sites sampled and the six wild forest or other units accounted for 57% of the visitor access sites sampled (Table 2).

Table 2. The percentage of the 509 visitor access sites sampled in UMP areas on Forest Preserve lands in the southeastern Adirondack Park.

FP Unit Name	Visitor Access Sites Sampled (% of all sites)
Hoffman Notch Wilderness	10.0
Hudson Gorge Primitive area	1.8
Hudson River Special Management Area (part of LGWF)	1.4
Lake George Wild Forest	11.8
Pharaoh Lakes Wilderness	14.9
Shaker Mountain Wild Forest	9.0
Siamese Ponds Wilderness	11.8
Silver Lake Wilderness	6.5
Vanderhacker Mountain Wild Forest	15.5
Wilcox Lake Wild Forest	17.3
TOTAL	100.0

Characteristics of Visitors and Their Trips based on the On-Site Surveys

Of the 1,331 visitors who agreed to complete an on site survey, 1,153 (87%) on-site surveys were complete enough to be used in the following analysis of visitor characteristics and their trips.

The four wilderness areas accounted for 37% of the on-site visitor surveys completed and the six wild forest or other units accounted for 63% of the on-site visitor surveys completed (Table 3). The Lake George Wild Forest (LGWF) and Hudson River Special Management Area (part of the LGWF) accounted for 29% of onsite visitor surveys completed.

Table 3. The percentage of the 1,153 on-site visitor surveys completed in UMP areas on Forest Preserve lands in the southeastern Adirondack Park.

FP Unit Name	Visitor On-Site Surveys Completed (% of all sites)
Wilcox Lake Wild Forest	21.7
Lake George Wild Forest	20.6
Pharaoh Lakes Wilderness	13.2
Siamese Ponds Wilderness	12.6
Hudson River Special Management Area (part of LGWF)	8.1
Shaker Mountain Wild Forest	6.9
Hoffman Notch Wilderness	5.6
Vanderhacker Mountain Wild Forest	5.2
Silver Lake Wilderness	5.1
Hudson Gorge Primitive area	1.0
TOTAL	100.0

The summer and winter seasons accounted for 73% of the on-site visitor surveys completed which comprised seven of the busiest months of visitor activity (Table 4).

Table 4. The percentage of the 1,153 on-site visitor surveys completed on Forest Preserve lands in the southeastern Adirondack Park by season.

Sampling Season	Percent of on-site visitor surveys completed
Winter season from December 1, 2008 through March 31, 2009	26
Spring season from April 1 through May 31, 2009	11
Summer season from June 1 through August 31, 2009	47
Fall season from September 1 through November 30, 2009.	16
Total	100%

Eighty-two percent of the visitors completing a survey were on day trips within the Forest Preserve unit while 18% were camping overnight within that unit. Eighty percent of those staying overnight within the unit were doing so for 1 to 3 days and 20% were staying four or more days. The overall mean was 3.3 days for those staying overnight within the unit.

Eighty-two percent of the visitors completing a survey were on day trips within the Adirondack Park, the same percentage as those on day trips within a unit, while 18% were staying overnight within the Adirondack Park. Seventy percent of those staying overnight within the Adirondack Park were doing so for 1 to 3 days; 16% were staying from four to seven days; and 14% were staying eight or more days. The overall mean was 5.8 days for those staying overnight within the Adirondack Park.

The majority of visitors (73%) had traveled from their primary residence to their recreation destination (Table 5). The remaining visitors lodged for one or more nights in a variety of accommodations from staying with friends or relatives to camping on state land.

Table 5. The percentage of the 1,153 on-site visitor surveys completed on Forest Preserve lands in the southeastern Adirondack Park by type of lodging used on their trip.

Lodging Type	Percent of respondents^a
Traveled from primary residence	73
Private home of friend or relative	12
Rented home, condo, cabin, or lodge	10
New York State campground	8
Primitive campsite on state land	6
Second home, cabin or condominium	6
Hotel or motel	5
Other	2

^a Lodging totals to more than 100% because some visitors used more than one type of lodging during their trip.

Thirty-three percent of the visitors completing a survey spent additional nights away from home outside the Adirondack Park while on this trip to the Park. The vast majority (93%) of those visitors spent an additional night outside the Adirondack Park while away from home and did so for only one day; 7% were staying two or more days. The overall mean was 1.8 days for those staying over night outside the Adirondack Park while on their trip.

Visitors traveled an average of 43 miles to their recreation site with 34% traveling 10 miles or less. Forty-two percent traveled between 11 and 50 miles from their residence, 19% traveled 51 to 100 miles, and 5% traveled 101 miles or more from their residence to the recreation destination where they were interviewed.

The primary residence area for most visitors (84%) interviewed was New York State. The other visitors were from the northeastern states of Vermont, New Hampshire, Massachusetts, Connecticut, Maine, and Pennsylvania (6%), the Province of Ontario (6%) or elsewhere in the US and Canada (4%).

Visitors reported that hiking and walking was participated in by the majority (82%) and was most often their primary reason for the trip to the unit in which they were interviewed (Table 6). Viewing natural features and wildlife and birds were also participated in by a majority of visitors (71% and 68%, respectively).

Table 6. The percentage of visitors reporting participation in recreational activities on Forest Preserve lands in the southeastern Adirondack Park.

Recreation Activities	Participated (%)	Primary reason for trip (%)
Hiking or walking	82	44
Viewing natural features such as scenery, flowers, etc.	71	2
Viewing wildlife, birds, fish, etc.	68	1
Cross country skiing ^a	33	18
Photography	27	1
Picnicking ^b	23	1
Snowmobiling ^a	22	15
Fishing – all types	19	6
Nature study (identification of birds, plants, etc.)	19	1
Canoeing or kayaking ^b	19	3
Backpacking and camping in primitive campsites	18	6
Driving for pleasure on roads (paved, gravel, or dirt)	15	1
Hunting –all types	7	3
Back country alpine skiing ^a	7	1
Camping along roads (tent, trailer, or recreational vehicle)	6	1
Motorized water travel (boat, jet ski, etc.)	6	1
Horseback riding	2	1
Riding an all terrain vehicle or off-road vehicle	2	0
Other activity (swimming was most frequently mentioned)	21	2

^a Three winter activities were only asked during the winter survey period.

^b Two activities were only asked during the non-winter survey period.

The majority of respondents reported that they typically participated in recreation activities in the Adirondack Park in all four seasons of the year: winter (90%), spring (75%), summer (60%), and fall (66%). Only 5% of respondents reported that they were on their first recreation trip to the Adirondack Park.

The majority of respondents (91%) took their trip to the Adirondack Park primarily for recreation. Those who were primarily in the Adirondack Park for recreation were participating in the management area they were interviewed in, or that unit plus other units (61% and 30%, respectively) (Table 7).

Table 7. Percentage of respondents reporting on the purpose of their trip to the southeastern Adirondack Park.

Reason for visit	Percentage
Primarily for recreation – this Management Unit is my main destination	61
Primarily for recreation – this Management Unit and other units in the Adirondack Park are my main destinations	30
Primarily to visit friends and relatives in the area – recreation in this Management Unit is secondary	6
Primarily for business in the area – visiting this Management Unit is secondary	1
Traveling through to another destination – visiting this Management Unit is secondary	1
Other reasons	<u>1</u>
Total	100

Group size was most often 1 to 3 visitors (65%) or 4 to 6 visitors (25%) (Table 8). Twenty percent of groups included one or more children under 18 years of age. The average total group size was 3.6 people (adults and children). Visitor groups were most often (84%) made up of family, friends, or friends and family with only 12% of respondents report participating alone (table 9).

Table 8. Percent of groups by group size and inclusion of adults and children on Forest Preserve lands in the southeastern Adirondack Park.

Number in Group	Total Group
1 – 3	65
4 – 6	25
7 – 9	7
10+	<u>3</u>
Total	100

Table 9. Percent of respondent groups by group composition on Forest Preserve lands in the southeastern Adirondack Park.

Group Composition	Percentage
Friends	34
Family	38
Friends and Family	12
Organization	3
By myself	12
Other	1
Total	100

Respondents were represented by all ages from 18 to more than 75 years of age (Table 10).

Respondents were more often male (66%) than female (34%).

Table 10. Percent of respondents by age using Forest Preserve lands in the southeastern Adirondack Park.

Age	Percentage
18 to 24	13
25 to 29	13
30 to 34	10
35 to 39	8
40 to 44	9
45 to 49	15
50 to 54	11
55 to 59	10
60 to 64	6
65 to 69	3
70 to 74	1
75 years and up	1
Total	100

Most respondents were employed (74%), 11% reported being retired from the work force, and 9% reported being students (Table 11).

Table 11. Percent of respondents by occupation using Forest Preserve lands in the southeastern Adirondack Park.

Occupation	Percentage
Employed	74
Retired	11
Student	9
Unemployed	2
Homemaker / homecare provider	2
Military Service	1
I prefer not to answer this question	1
Total	100

Respondents are generally well educated with 56% reporting having earned a bachelor’s degree or higher in college (Table 12).

Table 12. Percent of respondents by highest degree or level of school using Forest Preserve lands in the southeastern Adirondack Park.

Education	Percentage
8 th grade or less	1
9 th to 11 th grade	1
High school graduate or GED	15
Some college or technical/trade school, but have not yet graduated	16
Associate’s or technical /trade school degree (AA or AS)	11
Bachelor’s degree (BA or BS)	30
Master’s, Professional, or Doctoral degree	26
I prefer not to answer this question	0
Total	100

The majority of respondents (90%) reported being of a Caucasian or white racial origin and only 3% did not want to answer the question (Table 13). Of those who would answer the question, 92% reported being Caucasian or White (non-Hispanic or Latino) in origin.

Table 13. Percent of respondents by race or ethnic group using Forest Preserve lands in the southeastern Adirondack Park.

Race or Ethnic Group	Percentage
White (Caucasian) origin	90
Hispanic or Latino origin	3
Asian	2
American Indian or Alaska Native	1
Black or African American	<1
Native Hawaiian or other Pacific Islander	<1
I prefer not to answer this question	3
Total	100

The majority of responding visitors, vacation home owners or seasonal residents were highly experienced in traveling to the Adirondack Park and engaging in their primary form of recreation (Table 14). Fifty-two percent of these visitors were taking their first trip in the Forest Preserve management unit in which they were interviewed in the southeastern area of the Adirondack Park (Table 14).

Table 14. Percent of respondents who were visitors, vacation home owners or seasonal residents and the typical number of times they visit Forest Preserve lands in the southeastern Adirondack Park.

Annual visitation	Adirondack Park	FP unit interviewed in	Primary recreation activity I was doing when interviewed
First trip	22	52	16
1-2 times	9	13	8
3-5 times	16	16	19
6-10 times	17	9	17
11-20 times	16	5	18
More than 20 times	<u>20</u>	<u>5</u>	<u>22</u>
Total	100	100	100

The majority of responding full-time Adirondack Park residents were highly experienced in the Forest Preserve management unit in which they were interviewed in the southeastern area of the Adirondack Park and were highly experienced in their primary form of recreation (Table 15).

Table 15. Percent of respondents who were full-time residents of the Adirondack Park and the typical number of times they visit Forest Preserve lands in the southeastern Adirondack Park.

Annual visitation	FP unit interviewed in	Primary recreation activity I was doing when interviewed
First trip	26	15
1-2 times	7	3
3-5 times	19	14
6-10 times	13	15
11-20 times	13	19
More than 20 times	<u>22</u>	<u>34</u>
Total	100	100

All visitors interviewed were asked if they would be willing to participate in a more detailed mail survey about their overall trip experiences. Over 60% were willing to participate in the mail survey and provided their name and address to the interviewer.

Experiences of Visitors Responding to the Mail Survey

During the field interview portion of the study, 717 visitors agreed to participate in the mail survey portion of this study and 481 were returned for analysis (67% response rate).

Each of the management areas on Forest Preserve lands in the southeastern Adirondack Park had some respondents to the mail survey (Table 16). However, the percentage for each unit varied based on numerous factors across the 12-month period of interviews and mail surveys (e.g., seasonal accessibility, amount of access, level of participation in activities for that area, etc.)

Table 16. The percentage of mail survey respondents (n=481) who were interviewed on Forest Preserve lands in the southeastern Adirondack Park.

FP Unit Name	Mail Survey Respondents (%)
Hoffman Notch Wilderness	6.9
Hudson Gorge Primitive area	1.1
Hudson River Special Management Area (part of LGWF)	2.1
Lake George Wild Forest	22.6
Pharaoh Lakes Wilderness	11.6
Shaker Mountain Wild Forest	7.7
Siamese Ponds Wilderness	13.7
Silver Lake Wilderness	4.8
Vanderwhacker Mountain Wild Forest	7.0
Wilcox Lake Wild Forest	22.5
TOTAL	100.0

Respondents relied heavily on their past experience and information from family and friends for information regarding the Forest Preserve unit they were visiting when interviewed in the southeastern Adirondack Park (Table 17). Many respondents reported using multiple sources of information and table 17 adds up to more than 100% for that reason.

Table 17. The percentage of mail survey respondents and their sources of information regarding Forest Preserve lands in the southeastern Adirondack Park.

Source of Information	Used Source (%)
Previous personal experience there	56
Friend or family member	35
Commercially published guidebook/map	25
NYS DEC staff or written materials	11
Internet or a Web site	9
Chamber of commerce or visitor center	3
Other sources	11

Respondents reported they wanted a variety of information regarding the Forest Preserve unit they were visiting when interviewed in the southeastern Adirondack Park (Table 18). Respondents were particularly interested in obtaining detailed maps (52%) and information on current trail conditions (40%). Many respondents reportedly wanted multiple sources of information and table 18 adds up to more than 100% for that reason.

Table 18. The percentage of mail survey respondents and the types of information they wanted more of regarding Forest Preserve lands in the southeastern Adirondack Park.

Types of Information	Desired Information (%)
Map of the area, listing campsites, hiking trails, etc.	52
Trail conditions	40
Campsite availability	19
Rules and regulations	13
Local area attractions	12
Other information	10

Respondents were asked to indicate their perceived level of importance for 12 features of the southeastern Adirondack Park area during their trip in 2008-9. Importance was measured on a five-point range from very unimportant (-2) to neutral (0) to very important (2). The 12 features of the southeastern Adirondack Park experience were organized for this report by mean level of importance (Table 19).

The most important features of the area that were reported by 90% or more of the respondents were: experience natural environment and scenic beauty (95%); experience an environment free of litter and human waste and impacts (94%); enjoy physical activity, challenge, and exercise (91%); feel a

connection with nature and a natural environment (91%); experience a remote area away from sight and sound of cities and people (91%); and feel a connection with wilderness & wild forests as important places (90%) (Table 19). The most unimportant features of the area that were reported by 10% or more of the respondents were: practice travel skills through a remote wild environment (20%), and obtain information on recreation opportunities, activities, and locations (21%) (Table 19).

Table 19. The percentage of mail survey respondents reporting the importance or unimportance of certain features on Forest Preserve lands in the southeastern Adirondack Park.

Important Area Features	Percentage					Total	Mean
	Very Unimportant (-2)	Unimportant (-1)	Neutral (0)	Important (1)	Very Important (2)		
a) Experience natural environment and scenic beauty.	2	1	2	22	73	100	1.65
b) Experience an environment free of litter and human waste and impacts.	2	1	3	27	67	100	1.58
c) Enjoy physical activity, challenge, and exercise.	1	1	5	31	62	100	1.51
d) Feeling a connection with nature and a natural environment.	2	1	6	28	63	100	1.48
e) Experience a remote area away from sight and sound of cities and people.	2	2	5	30	61	100	1.45
f) Feel a connection with wilderness & wild forests as important places.	2	1	7	33	57	100	1.41
g) Experience recreation trails, sites, and environments that were <u>not</u> crowded.	1	1	10	36	52	100	1.35
h) Get away from daily routines and have a chance to reflect on life.	2	3	12	28	55	100	1.32
i) Experience well managed recreation trails & facilities.	1	5	13	46	35	100	1.10
j) Experience solitude and being isolated from other groups and having a personal experience within my group.	1	5	21	35	38	100	1.02
k) Practice travel skills through a remote wild environment.	4	16	33	28	19	100	0.43
l) Obtain information on recreation opportunities, activities, and locations.	7	14	39	28	12	100	0.24

Respondents were asked to indicate their level of satisfaction with 12 features of the southeastern Adirondack Park area during their trip in 2008-9. Satisfaction was measured on a five-point range from very dissatisfied (-2) to neutral (0) to very satisfied (2). The satisfactions reported for 12 features of the southeastern Adirondack Park area (Table 20) were organized in the same order as their importance in table 19.

The most satisfying components of the experience that were reported by 90% or more of the respondents were: experience natural environment and scenic beauty (98%); enjoy physical activity, challenge, and exercise (94%); feeling a connection with nature and a natural environment (95%); and feel a connection with wilderness & wild forests as important places (91%) (Table 20). The most dissatisfying or neutral reactions to the features of the area reported by respondents were: practice travel skills through a remote wild environment (41%), and obtain information on recreation opportunities, activities, and locations (56%) (Table 20).

Importance-Satisfaction grids were created by plotting the mean importance and satisfaction ratings for each of 12 features using a two-dimensional grid. Importance scores are displayed on the Y-axis, while satisfaction scores are displayed on the X-axis. The location of each attribute on the grid is the point at which importance values and satisfaction values intersect. Lines are drawn across the grid at the neutral points of each axis, thus creating four quadrants into which all points are plotted. Each quadrant is associated with a different management application. For example, those attributes that are plotted within the upper right quadrant of the grid have high means scores for both importance and satisfaction and, therefore, management attention is needed for those attributes. Thus, managers are encouraged to keep up the good work for attributes falling within that upper right quadrant or to work on those that are not as high in satisfaction. Features plotted within the upper left quadrant of the grid can be described as having high importance ratings, but low satisfaction ratings and managers are encouraged to concentrate their efforts on those features for improvement. Features plotted within the lower left quadrant of the grid can be described as having low mean importance and satisfaction scores and managers are encouraged to place a low priority on features in this quadrant of the grid. Finally, features plotted within lower right quadrant of the grid can be described as having low importance scores, but high satisfaction scores and these features may be thought of as not needing a lot of management attention.

Table 20. The percentage of mail survey respondents reporting their satisfaction or dissatisfaction with certain features on Forest Preserve lands in the southeastern Adirondack Park.

Important Area Features	Percentage					Total	Mean
	Very Dissatisfied (-2)	Dissatisfied (-1)	Neutral (0)	Satisfied (1)	Very Satisfied (2)		
a) Experience natural environment and scenic beauty.	1	0	1	32	66	100	1.64
b) Experience an environment free of litter and human waste and impacts.	1	7	9	41	42	100	1.16
c) Enjoy physical activity, challenge, and exercise.	0	0	6	38	56	100	1.49
d) Feeling a connection with nature and a natural environment.	0	0	5	38	57	100	1.51
e) Experience a remote area away from sight and sound of cities and people.	1	2	10	35	52	100	1.36
f) Feel a connection with wilderness & wild forests as important places.	1	0	8	40	51	100	1.42
g) Experience recreation trails, sites, and environments that were <u>not</u> crowded.	1	3	8	45	43	100	1.26
h) Get away from daily routines and have a chance to reflect on life.	1	0	10	33	56	100	1.44
i) Experience well managed recreation trails & facilities.	1	2	12	46	39	100	1.21
j) Experience solitude and being isolated from other groups and having a personal experience within my group.	1	3	20	40	36	100	1.09
k) Practice travel skills through a remote wild environment.	1	1	39	36	23	100	0.82
l) Obtain information on recreation opportunities, activities, and locations.	1	2	53	31	13	100	0.52

Figure 2 displays a grid summarizing the mean importance and satisfaction scores for the 12 features of the southeastern Adirondack Park area during visitor trips in 2008-9. The lines separating the four grid quadrants were placed at the neutral point for each axis (value = 0). Each variable is labeled by a lowercase letter corresponding with the importance listed in Table 19. All 12 features were plotted within the upper right quadrant of the grid, indicating that managers should keep up the good work in relation to these features. The 12 importance means were summed and averaged (overall importance mean = 1.21) to create the dotted line splitting the Y-axis, while the 12 satisfaction means were summed and averaged (overall satisfaction mean = 1.24) to create the dotted line splitting the X-axis.

The majority of the 12 features were all plotted within the first quadrant of the grid. These results suggest that visitors are satisfied with their experiences and that management should keep up the good work with these features. The features: (k) practice travel skills through a remote wild environment; and (l) obtain information on recreation opportunities, activities, and locations were plotted somewhat lower than average in importance and satisfaction on the grid and suggest that management should focus some attention on improving visitor information, in particular. Overall, visitors held most of the 12 features high to very high in importance and in satisfaction indicating strong trip satisfaction.

Overall, respondents were satisfied (23.7%) to very satisfied (70.8%) with their trip in the southeastern Adirondack Park in 2008-9 (Table 21). About 5% of respondents reported being very dissatisfied or dissatisfied with their trip in southeastern Adirondack Park in 2008-9.

Table 21. Percentages of overall satisfaction on respondent's trips to the southeastern Adirondack Park.

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	
(-2)	(-1)	(0)	(1)	(2)	Total
4.7	0.4	0.4	23.7	70.8	100.0

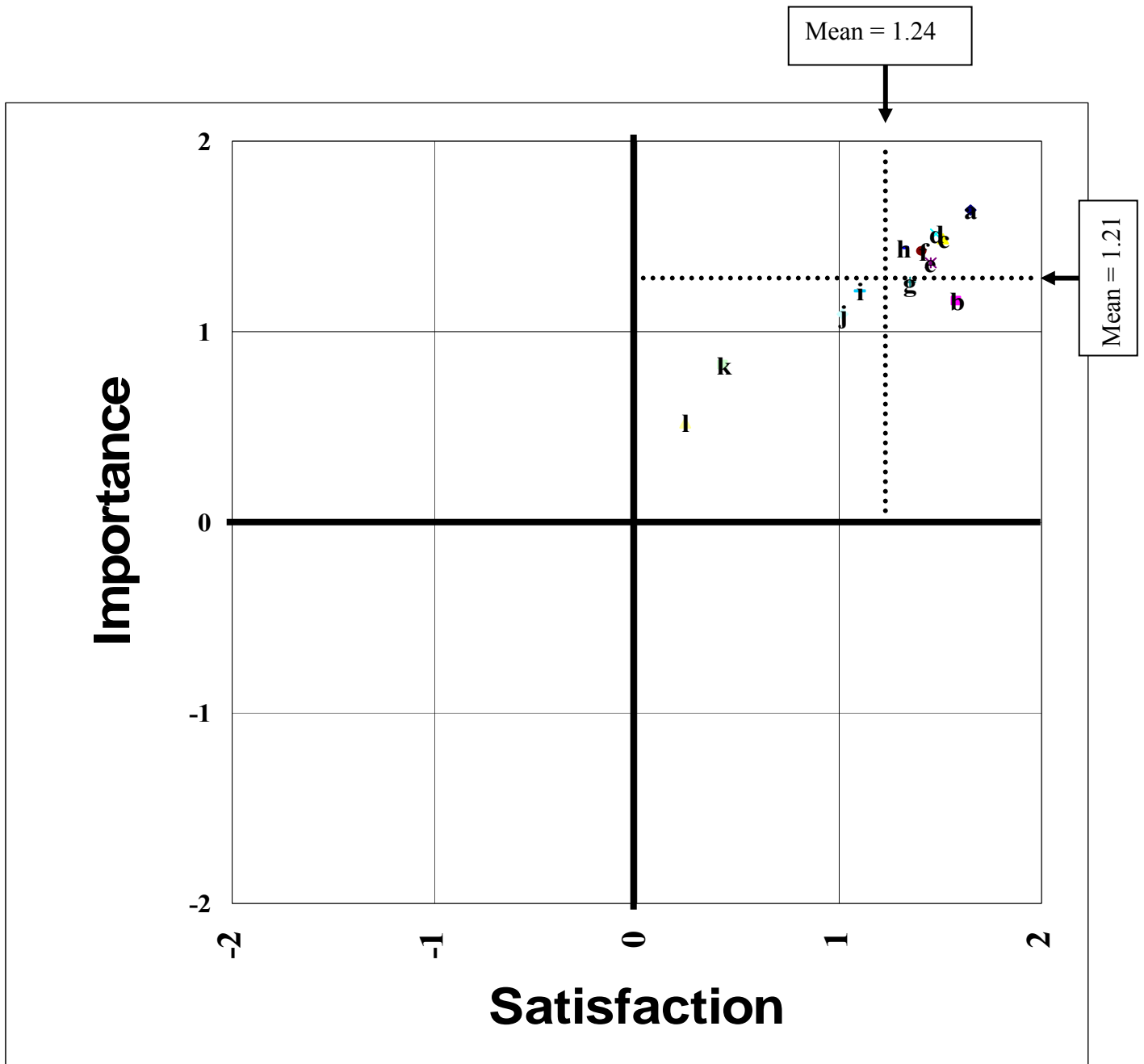


Figure 2. Importance and satisfaction grid summarizing visitor's perceptions during their 2008-9 recreation experiences in the southeastern Adirondack Park.

Six types of recreational activities were participated in during recent trips to the Adirondack Park by more than 50% of respondents (Table 22) with the vast majority most frequently reporting hiking or walking (96%).

Table 22. The percentage of mail survey respondents reporting their participation during recent years in various recreational activities in the Adirondack Park.

Recreational Activities	Percentage
Hiking or walking	96
Viewing natural features such as scenery, flowers, etc.	89
Viewing wildlife, birds, fish, etc.	78
Non-Motorized water travel (canoe, kayak, sailing)	63
Cross-country skiing or snowshoeing	58
Backpacking and camping in primitive campsites	52
Fishing – all types	48
Camping in campgrounds	41
Bicycling and mountain biking	35
Motorized water travel (boat, jet ski, etc.)	32
Skiing at a downhill ski area	31
Nature study	24
Hunting – all types	19
Camping in roadside campsites on state land	18
Snowmobile travel	15
Backcountry alpine or downhill skiing or snowboarding	14
Riding in designated off-road vehicle areas (non-snow)	10
Horseback riding	8

Four types of tourism-related activities were participated in during recent trips to the Adirondack Park by more than 50% of respondents (Table 23): driving for pleasure on roads (paved, gravel or dirt); dining out in restaurants; visiting museums or historical sites; and nature photography.

Table 23. The percentage of mail survey respondents reporting their participation during recent years in various tourism activities in the Adirondack Park.

Tourism Activities	Percentage
Driving for pleasure on roads (paved, gravel or dirt)	62
Dining	61
Visiting museums or historical sites	60
Nature photography	50
Attending festivals or cultural events	42
Visiting Environmental Education Centers	40
Shopping (for non-essential items)	39
Visiting farms, gardens, or orchards	36
Attending theater or music events	27
Attending art events or visiting galleries	23
Participated in an Olympic Regional Development Authority (ORDA) or Empire State Game event or activity	6

Overall, 98% of respondents reported that the Adirondack Park was their first choice for the recreational trip. If for some reason they had not been able to go to the Adirondack Park, the majority would have: gone somewhere else outside the Adirondack Park for the same activities (39%) or come back to the Adirondack Park another time (28%) (Table 24).

Table 24. The percentage of mail survey respondents reporting their alternative behavior if they had not been able to go to the Adirondack Park.

Alternative Choice	Percentage
Gone somewhere else outside the Adirondack Park for the same activities	39
Come back to the Adirondack Park another time	28
Stayed home	9
Gone somewhere else for a different activity	5
None of these	19
Total	100

Three questions asked respondents how they would modify their participation in the future based on their experiences on their trip in the southeastern Adirondack Park. Future intentions were considered long-term outcomes of their southeastern Adirondack Park experience at the time of the survey. The

future intention questions were designed to identify behavioral modifications to how visitors use an area resulting from current on-site conditions and experiences. If the visitor is satisfied with current conditions and experiences there should not be a need to modify behavior. Conversely, if a visitor experienced less than satisfying situations on the current trip he/she is likely to proactively avoid the area again in the future. Future intentions was measured on a five-point range from very unlikely (-2) to neutral (0) to very likely (2). The majority of visitors reported that were likely to very likely to return to the Adirondack Park and the same management area on another trip or return to the Adirondack Park and seek a different management area on another trip (91% and 82%, respectively) (Table 25). One-third (36%) of respondents reported that they were likely or very likely to go to another recreation area outside the Adirondack Park.

Table 25. The percentage of mail survey respondents reporting their future intentions to go to the Adirondack Park.

As a result of my experience on this trip I am likely to:	Percentage					Total	Mean
	Very Unlikely (-2)	Unlikely (-1)	Neutral (0)	Likely (1)	Very Likely (2)		
Return to the Adirondack Park to the same management area	3	1	5	24	67	100	1.51
Return to the Adirondack Park but seek a different area	5	3	10	27	55	100	1.24
Go to a different recreation area outside of the Adirondack Park	15	19	30	19	17	100	0.05

SELF REGISTRATION COMPLIANCE BY VISITORS AT TRAILHEAD KIOSKS

Trail counters were used to estimate visitor use and to compare those estimates with the number of visitors who registered at a trailhead kiosk. Trail counters were placed within 100 feet to 100 yards of the kiosk to minimize the error that would occur from visitors who might sign in but not travel very far up a trail. Similarly the procedures for trail counter use were followed as was recommended in previous research in the Adirondacks (Dawson, Connelly and Brown 2006). Sampling occurred on trails for multiple week periods throughout the year. Due to mechanical failure during bad weather conditions (e.g., heavy snow fall accumulation), the winter months did not produce as many sampling periods as planned.

The results of the comparison between trail counter estimates of use and visitor registrations at trailheads are shown in table 26. Overall, visitors complied with the request to register at a trailhead kiosk 87% of the time. There was wide variation in the percentage of compliance and the average was from 61% to 118%. The estimates that reported more registered visitors at the kiosks compared to the trail counters (i.e., more than 100% compliance) were likely due to three factors: (1) visitors were sometimes registering individually but recording their entire group total each time and, thereby, inflating the total numbered registered, although attempts were made to identify the obvious cases and remove them as the field data was entered into the computer; (2) visitors were exiting or entering the area in ways other than the main trail that had the counter installation; and (3) visitors were registering and going one way in or out on the trail but not both directions. Trail counter data is divided by two under the assumption that visitors most frequently go in and out at the same trailhead.

Of the 10 Forest Preserve Units in the study in the southeastern quadrant of the Adirondack Park, NYSDEC only had trailhead register data for nine areas (Table 27) and 93,783 visitors registered at those locations during 2008. Given the estimated compliance rate of 87%, we estimate that 107,800 visits actually occurred in those areas when visitors passed by those trailhead kiosks. These 107,800 visits represent only those trailheads that had register data available for this study (i.e., fewer than 45 sites) and not the total annual visitation in those 10 units; only 45 sites had trail registers out of the more than 120 public access sites in the 10 units.

The average compliance rate for this study was comparable to previous studies that used the same techniques of comparing trail register and electronic trail counter data in four Forest Preserve management areas: McKenzie Mountain Wilderness Area (77%); West Canada Lake Wilderness Area

(98%); William C. Whitney Wilderness Area (75%); and Lake George Wild Forest (102%) (Dawson et al. 2005a and 2005b)

Table 26. Unit areas on Forest Preserve lands in the southeastern Adirondack Park and the number of trailhead registrations in 2008-9.

Trail Counter Location	Number of Sampling Periods	Number of Sampling Days	Number of Groups	Number of Registered Visitors	Number of Visitors measured by Trail Counter	Visitor Compliance Percentage
Clay Meadows	1	17	29	52	85	61%
Kane Mtn.	1	26	232	757	641	118%
NPT at Benson	2	55	92	230	234	98%
Murphy-Middle Bennet Pond	2	80	203	480	505	95%
Hadley Mtn.	3	90	1131	3198	3784	85%
Black Mtn.	2	38	75	232	207	112%
Spectacle Pond	4	65	112	319	349	91%
Severance Hill	2	33	176	565	747	76%
Big Pond	2	52	25	52	79	66%
11th Mtn.	5	124	136	321	421	76%
Old Farm Clearing	2	54	58	198	286	69%
Stony Pond - Irishtown	3	97	96	232	268	87%
TOTAL	29	731	2365	6636	7606	87%

Table 27. Unit areas on Forest Preserve lands in the southeastern Adirondack Park and the number of trailhead registrations in 2008.

FP Unit Name	Unit Classification	Trailhead Registration Number of Visitors in 2008
Hoffman Notch	Wilderness	4,508
Hudson Gorge	Primitive Area	1,796
Hudson River Special Management Area (part of LGWF)	Special Management area	(no registers)
Lake George	Wild Forest	30,997
Pharaoh Lakes	Wilderness	13,488
Shaker Mountain	Wild Forest	5,059
Siamese Ponds	Wilderness	13,961
Silver Lake	Wilderness	2,955
Vanderwhacker Mountain	Wild Forest	2,268
Wilcox Lake	Wild Forest	<u>18,751</u>
TOTAL		93,783

In 2008, the 93,783 trailhead visitor registrations ranged from 1,400 to 1,750 visitors per month during the four winter months and to between 19,000 and 22,700 visitors in the months of July and August, respectively (figure 3). October recorded the highest fall month with over 12,600 visitors due to visitors seeking fall leaf foliage color changes.

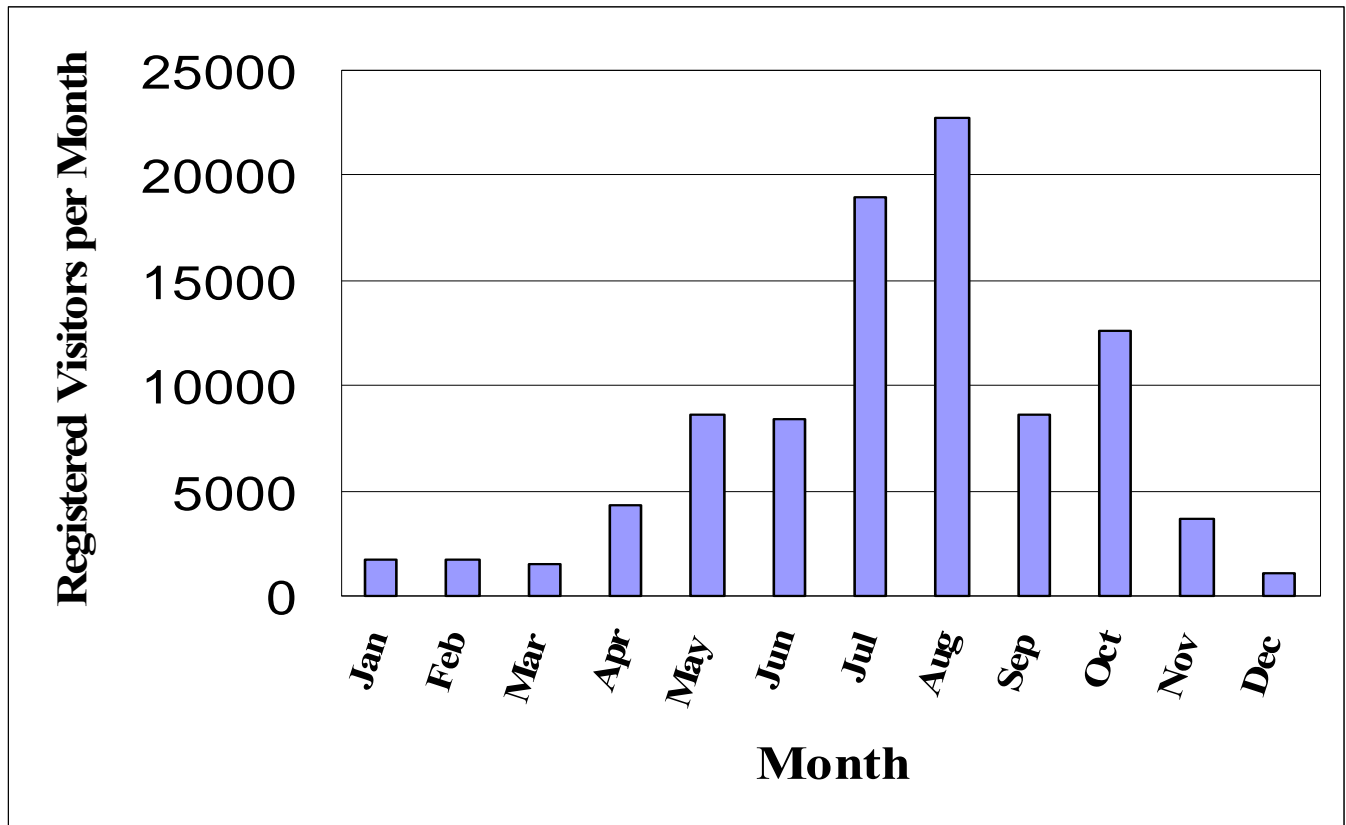


Figure 3. Trailhead visitor registrations by month for nine management areas on Forest Preserve lands in the southeastern Adirondack Park in 2008.

Sampling was systematic to generally represent the visitor population; however, given the extremely highly variable nature of visitation at different sites and without prior estimates of visitor use it was not possible to design a sampling system that would allow for estimates of total estimated use for access points with and without trailhead registers. Therefore, total annual use in each FP unit area could not be estimated.

SUMMARY

The objectives for this study were: (1) design and conduct field interviews and mail surveys to develop (a) a profile of visitor characteristics for those visitors entering and recreating on Forest Preserve lands (e.g., residence location, seasonality of use), (b) a characterization of the type and location of visitor activities and experiences on Forest Preserve lands (e.g., location and intensity of use, experience use history, recreation activities), (c) visitor satisfaction with their experiences on the Forest Preserve lands and within the Adirondack Park, and (d) their future intended behavior related to Forest Preserve lands; (2) estimate visitor compliance with signing in at trailhead registers on Forest Preserve lands in comparison to electronic trail counters; and (3) cooperate with DEC staff to create a trailhead registration data entry and analysis system as the basis for estimating spatial and temporal patterns of visitor use within the Forest Preserve units.

Field research was conducted on recreational use on Forest Preserve lands in the southeastern Adirondack Park from December 1, 2008 through November 30, 2009: (1) winter season from December 1, 2008 through March 31, 2009; (2) spring season from April 1 through May 31, 2009; (3) summer season from June 1 through August 31, 2009; and (4) fall season from September 1 through November 30, 2009.

A total of 97 public access sites were visited a total of 509 separate sampling times during the 12-month period. During the 509 sampling events, a total of 2,826 visitors were seen and 2,349 were talked with briefly as they approached the interviewer's location and 1,559 were asked to participate in the survey. Of the 1,559 asked to participate, 1,331 (85%) agreed to complete a survey at the site and 228 (15%) refused to participate in the survey.

- Eighty-two percent of the visitors completing a survey were on day trips within the Forest Preserve management unit while 18% were camping overnight within that management unit.
- The majority of visitors (73%) had traveled from their primary residence to their recreation destination, the remaining visitors lodged for one or more nights in a variety of accommodations from staying with friends or relatives to camping on state land.
- Visitors traveled an average of 43 miles to their recreation site with 34% traveling 10 miles or less, 42% traveled between 11 and 50 miles from their residence, 19% traveled 51 to 100 miles, and 5% traveled 101 miles or more from their residence to their recreation destination.

- The primary residence area for most visitors (84%) interviewed was New York State. The other visitors were from the northeastern states of Vermont, New Hampshire, Massachusetts, Connecticut, Maine, and Pennsylvania (6%), the Province of Ontario (6%) or elsewhere in the US and Canada (4%).
- Visitors reported that hiking and walking was participated in by the majority (82%) and was most often their primary reason for the trip to the unit in which they were interviewed.
- The majority of respondents reported that they typically participated in recreation activities in the Adirondack Park in all four seasons of the year: winter (90%), spring (75%), summer (60%), and fall (66%).
- The majority of respondents (91%) took their trip to the Adirondack Park primarily for recreation.
- Group size was most often 1 to 3 visitors (65%) or 4 to 6 visitors (25%).
- The majority of responding visitors, vacation home owners or seasonal residents were highly experienced in traveling to the Adirondack Park and engaging in their primary form of recreation.
- Similarly, the majority of responding full-time Adirondack Park residents was highly experienced in the Forest Preserve management unit in which they were interviewed in the southeastern area of the Adirondack Park and engaging in their primary form of recreation.

During the field interview portion of the study, 717 visitors agreed to participate in the mail survey portion of this study and 481 were returned for analysis (67% response rate).

- Respondents reported they wanted a variety of information regarding the Forest Preserve management unit they were visiting when interviewed and were particularly interested in obtaining detailed maps (52%) and information on current trail conditions (40%).
- The most important features of the area that were reported by 90% or more of the respondents were:
 - experience natural environment and scenic beauty (95%);
 - experience an environment free of litter and human waste and impacts (94%);
 - enjoy physical activity, challenge, and exercise (91%);
 - feel a connection with nature and a natural environment (91%);
 - experience a remote area away from sight and sound of cities and people (91%); and

- feel a connection with wilderness & wild forests as important places (90%)
- The most satisfying components of the experience that were reported by 90% or more of the respondents were:
 - experience natural environment and scenic beauty (98%);
 - enjoy physical activity, challenge, and exercise (94%);
 - feel a connection with nature and a natural environment (95%); and
 - feel a connection with wilderness & wild forests as important places (91%).
- Overall, respondents were satisfied (23.7%) to very satisfied (70.8%) with their trip in the southeastern Adirondack Park in 2008-9.
- Most respondents (98%) reported that the Adirondack Park was their first choice for the recreational trip and if they had not been able to go to the Adirondack Park, the majority would have gone somewhere else outside the Adirondack Park for the same activities (39%) or come back to the Adirondack Park another time (28%).
- The majority of visitors reported that were likely to very likely to return to the Adirondack Park and the same management area on another trip or return to the Adirondack Park and seek a different management area on another trip (91% and 82%, respectively).

Trail counters were used to estimate visitor use and to compare those estimates with the number of visitors who registered at a trailhead kiosk. Overall, visitors complied with the request to register at a trailhead kiosk 87% of the time.

DISCUSSION AND IMPLICATIONS

The visitors to the 10 Forest Preserve unit areas in the southeastern quadrant of the Adirondack Park were predominantly New York State residents (84%) and 76% lived within 50 miles of the recreation setting on Forest Preserve lands in which they were interviewed. The Forest Preserve lands within this area of the Adirondack Park tend to attract local residents for a variety of recreational activities with family and friends. What is surprising is the small percentage of visitors who come to this area from the distances greater than 100 miles from their residence (5%) and those 16% that are from outside New York State and reside in the U.S. and Canada. Other Forest Preserve management units of the Adirondack Park may attract a higher percentage of non-resident and more distant travelers. The possibilities for greater use by

New York residents and people residing within a one-day drive (i.e., 350 miles) of the Adirondack Park are evident when you consider the population statistics and characteristics in the region.

The APA (2010) estimated that the Adirondack resident population is 131,807 in 2000 and that there were 45,252 seasonal residents of the Adirondack Park in 2008; these are likely the heavy recreational users on Forest Preserve lands within the Adirondack Park. However, a large population base exists at a greater distance from the Adirondack Park and does not appear to use Forest Preserve lands in the southeastern quadrant of the Adirondack Park to a large degree. New York State has a population of 19.4 million residents according to the 2008 U.S. Bureau of the Census (2010) reports and 87% are defined as living in urban areas and cities.

Another way to think about the potential user base for the Adirondack Park, including Forest Preserve lands, is to consider the population that lives within a one-day drive of the Adirondack Park. The APA (2010) estimated that there are 66 million US citizens (2005 population estimates) and 17.7 million Canadian citizens (2001 population estimates) who reside within 350 miles of the Adirondack Park boundary.

While it is evident that the Forest Preserve user base in the southeastern quadrant of the Adirondack Park is very localized and could be expanded geographically, it is also interesting to consider the age and ethnic/racial mixture of visitors compared to the general population. For example, while there were 36% of the adult visitors in the 18 to 34-year-old category, they represent 30% of the New York State adult population in 2008. Similarly, while there were 5% of the adult visitors in the 65 or older category, they represent 17% of the New York State adult population in 2008. An even more dramatic comparison is that 92% of those answering the visitor survey question on racial and ethnic origins reported being white or Caucasian in heritage and 3% as being Hispanic or Latino, while these same racial/ethnic groups make up 60% and 17%, respectively, in the New York State population in 2008.

The future of the Forest Preserve and the Adirondack Park itself rests on the support of the people of New York State. It is imperative that a wide diversity of New York State citizens learn to know and love the Adirondack Park and its Forest Preserve lands, for as Freeman Tilden (1957) has often said: We protect only what we know and love. Not all the citizens of New York State need set foot on Forest Preserve lands to know and love and, thus, protect them. So, how else can this important heritage and landscape be maintained for future generations of New York State residents? One example may be information and education outreach programs to reach a highly urbanized population.

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LITERATURE CITED

- Adirondack Park Agency and New York State Department of Environmental Conservation. 2001. Adirondack Park State Land Master Plan. Raybrook, NY.
- Adirondack Park Agency. 2010. Estimated population of the Adirondack Park. Raybrook, NY. Accessed November 15, 2010 at <http://www.apa.state.ny.us/gis>.
- Dawson, C.P., Peters, N., Connelly, N.A. and Brown, T.L. 2005a. Adirondack Visitor Studies Conducted in Support of NYSDEC Unit Management Planning: Bog River Unit, Mc Kenzie Mountain Wilderness, and West Canada Lake Wilderness. Human Dimensions Research Unit report HDRU Series No. 05-6, Cornell University, Ithaca, NY. 121 pages.
- Dawson, C.P., Connelly, N.A. and Brown, T.L. 2005b. Adirondack Visitor Studies Conducted in Support of NYSDEC Unit Management Planning: Lake George Wild Forest (North) and William C. Whitney Wilderness. Human Dimensions Research Unit report HDRU Series No. 05-7, Cornell University, Ithaca, NY. 87 pages.
- Dawson, C.P., Connelly, N.A. and Brown, T.L. 2006. Adirondack Visitor Studies Conducted in Support of NYSDEC Unit Management Planning: Recommendations for Research. Human Dimensions Research Unit report HDRU Series No. 06-9, Cornell University, Ithaca, NY. 26 pages.
- Dillman, D. A. 1978. *Mail and Telephone Surveys: The Total Design Method*. New York: John Wiley & Sons.
- Tilden, Freeman. 1957. *Interpreting our heritage*. Chapel Hill, NC: University of North Carolina Press.
- U.S. Bureau of the Census. 2010. Current Population Reports. Accessed November 15, 2010 at <http://www.census.gov/popest/states>
- Watson, Alan E.; Cole, David N.; Turner, David L.; Reynolds, Penny S. 2000. Wilderness recreation use estimation: A handbook of methods and systems. Res. Pap. RMRS-GTR-56. Ogden, UT: USDA, Forest Service, Rocky Mountain Research Station.
- Yuan, Susan; Maiorano, Brian; Yuan, Michael; Kocis, Susan M.; Hoshide, Gary T. 1995. Techniques and equipment for gathering visitor use data on recreation sites. 2300-Recreation, 9523-2838-MTDC. Missoula, MT: USDA, Forest Service, Technology and Development Program.

APPENDIX A: VISITOR STUDY FIELD SURVEY

Adirondack Visitor Survey

Winter 2009-2010



SUNY College of Environmental Science and Forestry
in cooperation with the New York State Department of Environmental Conservation

Introduction

Several terms will be used throughout this survey:

Adirondack Park is the six million acre area of public and private land encompassing the Adirondack region of New York State.

Management Unit refers to the wild forest or wilderness area where you are today.

A **recreation visit** can range from a few moments to enjoy a scenic view to a multiple day visit.

A **personal group** consists of the people you are with during your recreational activity today.

The survey questions ask about the trip you are on today in the **Adirondack Park** and in the following **Management Unit**:

1) How long did or will your recreation visit last in this **Management Unit**?

- This is a day trip, I did not or will not stay overnight
- This is an overnight trip _____ Enter # of days on this trip

2) How long will this trip last in the **Adirondack Park**?

- This is a day trip, I did not or will not stay overnight
- This is an overnight trip _____ Enter # of days on this trip

3) Are you spending additional nights away from home on this trip when you are not in the **Adirondack Park**?

- Yes, I will spend _____ nights away from home outside of the **Adirondack Park** on this trip.
- No, this is a day trip or all of my nights lodging were within the **Adirondack Park** on this trip.

4) What types of lodging are you using during this trip to the **Adirondack Park**? *Please check all that apply.*

- None, traveled from primary residence
- New York State campground
- Primitive campsite on state land
- Hotel or motel
- Rented home, condo, cabin, lodge, etc.
- Private home of a friend or relative
- Second home (a home, cabin, or condo that you own)
- Other (*please list*) _____

5) How many miles did you drive **today** to get to this **Management Unit** from your lodging or home?
_____ Miles

6) Where is your primary residence?

_____ State or Province

_____ County (if in New York State)

7) Which of the following activities have you participated in or will you participate in during this visit to this **Management Unit**? *Check all that apply.*

- Fishing – all types
- Hunting –all types
- Viewing wildlife, birds, fish, etc.
- Viewing natural features such as scenery, flowers, etc.
- Nature study (identification of birds, plants, etc.)
- Hiking or walking
- Horseback riding
- Backpacking and camping in primitive campsites
- Camping along roads (tent, trailer, or recreational vehicle)
- Rock climbing or ice climbing
- Driving for pleasure on roads (paved, gravel, or dirt)
- Riding an all terrain vehicle or off-road vehicle
- Photography
- Backcountry alpine skiing or snowboarding
- Cross country skiing and snowshoeing

- Snowmobile travel

- Other (*fill in activity*) _____

8) Which one activity listed above is your **primary reason** for this visit to this **Management Unit**? (*Circle one primary activity in the list above*)

9) During what seasons do you visit the **Adirondack Park** in a typical year? *Please check all that apply.*

- Summer (July – August)
- Fall (September – November)
- Winter (December - March)
- Spring (April – June)
- This is my first trip

10) Which of the following best describes the purpose for the trip you are on during this visit to the **Adirondack Park**? *Please check one box.*

- Primarily for recreation – this **Management Unit** is my main destination
- Primarily for recreation – this **Management Unit** and other units in the **Adirondack Park** are my main destinations
- Primarily to visit friends and relatives in the area – recreation in this **Management Unit** is secondary
- Primarily for business in the area – visiting this **Management Unit** is secondary
- Traveling through to another destination – visiting this **Management Unit** is secondary
- Other (*please list*) _____

11) How many people are in your **personal group** today?

_____ Enter # of adults (18 years old or older)

_____ Enter # of children (under 18 years old)

12) Who are you traveling with today in this **Management Unit**? *Please check one box.*

- By myself
- With family
- With friends
- With friends and family
- With an organization, such as a club or camp
- Other (*please list*) _____

13) What is your age?

- 18 to 24
- 25 to 29
- 30 to 34
- 35 to 39
- 40 to 44
- 45 to 49
- 50 to 54
- 55 to 59
- 60 to 64
- 65 to 69
- 70 to 74
- 75 years and up

14) What is your gender?

- Male
- Female

15) What is your occupation? *Please check one box.*

- | | |
|---------------------------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Retired | <input type="checkbox"/> Student |
| <input type="checkbox"/> Employed | <input type="checkbox"/> Unemployed |
| <input type="checkbox"/> Homemaker / homecare provider | <input type="checkbox"/> Military Service |
| <input type="checkbox"/> I prefer not to answer this question | |

16) What is the highest degree or level of school that you have completed? *Please check one box.*

- 8th grade or less
- 9th to 11th grade
- High school graduate or GED
- Some college or technical/trade school, but have not yet graduated
- Associate's or technical /trade school degree (AA or AS)
- Bachelor's degree (BA or BS)
- Master's, Professional, or Doctoral degree
- I prefer not to answer this question

17) With what race or ethnic group do you identify yourself? *Please check one box.*

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or other Pacific Islander
- Hispanic or Latino origin
- White (Caucasian) origin
- I prefer not to answer this question

The following questions gather information about your previous experience visiting the Adirondack Park and this Management Unit.

18) Are you an Adirondack Park **visitor, vacation home owner, or seasonal resident**?

- No
- Yes

If yes, how many times in a typical year do you:

Visit the **Adirondack Park**? _____ times This is my first visit

Visit this **Management Unit**? _____ times This is my first visit

Participate in the recreation activity
that you are doing today? _____ times This is my first time

19) Are you an Adirondack Park **resident**?

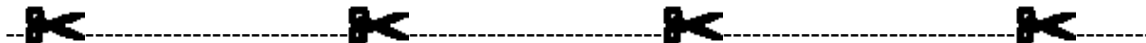
- No
- Yes

If yes, how many times in a typical year do you:

Visit this **Management Unit**? _____ times This is my first visit

Participate in the recreation activity
that you are doing today? _____ times This is my first time

Please write any additional comments here: _____



Are you willing to participate in a short mail survey about your experience with your trip today in the **Adirondack Park**?

- Yes

Name _____

Address _____

City, State, Zip code _____

- No

Thank you for participating today! Your input will help the New York State Department of Environmental Conservation improve its management of state lands.

**If you have any questions or comments about this survey, please contact:
Dr. Chad Dawson
320 Bray Hall
One Forestry Drive
Syracuse, NY 13210**

APPENDIX B: VISITOR STUDY FIELD SURVEY



Adirondack Visitor Survey



**In cooperation with the
New York State Department of Environmental Conservation**

This survey will take approximately 15 minutes to complete. Your responses are completely anonymous and will not be individually reported. Your information will help to better manage the Adirondack Forest Preserve!

The following question refers to your trip when you were **surveyed** in the following Management Unit in the Adirondack Park:

1. Where did you obtain information about this **Management Unit** for your trip? *(Please check all sources that apply.)*

- Previous personal experience there
- From a friend or family member
- From NYS Department of Environmental Conservation staff or written materials
- From a commercially published guidebook/map
- From a chamber of commerce or visitor center
- From the Internet or a Web site
- Other, please describe:

2. Would you have liked more information about any of the following topics before your trip to this **Management Unit**? *(Please check all that apply.)*

- Map of the area, listing campsites, hiking trails, etc.
- Trail conditions
- Rules and regulations
- Campsite availability
- Local area attractions
- Other, please describe:

3. In the center of the page below are **some** features of **your** experience in the Management Unit. For each feature, please first indicate on the left side its importance to your visit. Then go to the right side and indicate how satisfied you were with this feature.

How important was this feature to the success of your visit?

How satisfied were you with this feature?

Very Unimportant	Unimportant	Neutral	Important	Very Important	Feature	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Experience natural environment and scenic beauty.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Feeling a connection with nature and a natural environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Get away from daily routines and have a chance to reflect on life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Experience a remote area away from sight and sound of cities and people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Feel a connection with wilderness & wild forests as important places.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Experience an environment free of litter and human waste and impacts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Experience solitude and being isolated from other groups and having a personal experience within my group.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Practice travel skills through a remote wild environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enjoy physical activity, challenge, and exercise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Experience well managed recreation trails & facilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Experience recreation trails, sites, and environments that were <u>not</u> crowded.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Obtain information on recreation opportunities, activities, and locations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Which of the following activities have you participated in during recent years while visiting the **Adirondack Park**? (*Mark all that apply*)

Spring, Summer, and Fall Recreation Activities

- Fishing – all types
- Hunting – all types
- Viewing wildlife, birds, fish, etc.
- Viewing natural features such as scenery, flowers, etc.
- Nature study
- Hiking or walking
- Horseback riding
- Backpacking and camping in primitive campsites
- Camping in campgrounds
- Camping in roadside campsites on state land
- Riding in designated off-road vehicle areas (non-snow)
- Motorized water travel (boat, jet ski, etc.)
- Non-Motorized water travel (canoe, kayak, sailing)
- Bicycling and mountain biking

Winter Recreation Activities

- Snowmobile travel
- Skiing at a downhill ski area
- Backcountry alpine or downhill skiing or snowboarding
- Cross-country skiing or snowshoeing

Year-around Tourism Activities

- Driving for pleasure on roads (paved, gravel or dirt)
- Visiting Environmental Education Centers
- Nature photography
- Attending festivals or cultural events
- Attending theater or music events
- Shopping (for non-essential items)
- Dining
- Attending art events or visiting galleries
- Visiting museums or historical sites
- Visiting farms, gardens, or orchards
- Participated in an Olympic Regional Development Authority (ORDA) or Empire State Game event or activity

5. Was the **Adirondack Park** your group's first choice for this vacation?

Yes

If for some reason you had been unable to go to the **Adirondack Park** for this visit, which of the following things would you have done? *Please check one box.*

Gone somewhere else for the same activities

write in location: _____

Gone somewhere else for a different activity

write in location: _____

Come back another time

Stayed home

None of these

No

Where would you have preferred to visit for the same or different activities?

write in location: _____

6. Based on experiences on this trip in the **Adirondack Park**, are you likely to plan for future trips to this area?

As a result of my experience on this trip I am likely to:

Very Unlikely	Unlikely	Neutral	Likely	Very Likely
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Return to the **Adirondack Park** to the same management area

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Return to the **Adirondack Park** but seek a different area

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Go to a different recreation area outside of the **Adirondack Park**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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7. At the end of the entire trip in the Adirondacks, how satisfied are you with your entire experience?

- Very dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Very satisfied

8. If you have additional comments on your total trip experience in the **Adirondack Park**, please write them below:

Thank you very much for your time and effort, we appreciate it greatly.

Please return this completed survey in the self-addressed, stamped envelope to:
Adirondack Visitor Study
Dr. Chad Dawson, SUNY College of Environmental Science and Forestry,
320 Bray Hall, One Forestry Drive, Syracuse, NY 13210

