

Wildlife Management: Managing the Hunt versus the Hunting Experience

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ABSTRACT / Deer hunter satisfaction is investigated from two perspectives, (1) satisfaction with the hunt/harvest and (2) satisfaction with the overall hunting trip experience. Regression analysis is used to determine what variables best predict satisfaction with the hunt and the hunting experience. Results indicate that animal population variables (number of deer seen, shot at, bagged) are the best determinants of a quality deer hunt, while environmental (outdoors) and social (crowding and hunter behavior) are the best predictors of a quality hunting trip experience. Wildlife managers and researchers need to realize that deer hunters view the hunt/harvest as different from the hunting trip experience and need to manage for both aspects of hunter satisfaction.

A major objective of wildlife management is to provide hunters with a quality hunting experience. Determining the success of management at meeting this objective has been evaluated a number of ways. One approach has been to equate quality of wildlife management with hunter success rates, where a management program's effectiveness is gauged by the amount of game harvested (Vaske and others 1986). Another approach has concentrated on the number of hunter days afield (Crissey 1971). This model infers that as the number of hunters in the field increases, so increases the aggregated amount of hunter benefits, and the total effectiveness of wildlife management programs. Today, a multiple satisfaction approach is widely used to evaluate the quality of experience provided hunters. This perspective recognizes that there are multiple predictors of a quality hunting experience, ranging from weather conditions and the value of the outdoors to social companionship to harvest success (Potter and others 1973, Stankey and others 1973, Hendee 1974, Kennedy 1974, Decker and others 1980, Vaske and others 1986, Cundy and others 1988).

A long-standing and debatable issue with the multiple satisfaction approach to evaluating and providing quality hunting experiences has been how important the hunt itself is to the overall hunting visit or trip ex-

perience. More specifically, how much is harvest success related to a quality hunting experience (Figure 1)? Past hunter satisfaction studies have considered the actual hunt and the overall hunting experience to be inextricable and, therefore, have not attempted to distinguish between the two. However, most hunters indicate harvest success is not the most important, or even a very important, component of a quality hunting experience. Being in the outdoors, temporary escape, and social companionship often are suggested as more important dimensions of a quality hunting trip than harvest issues (Figure 2). Yet, hunters are known to scout, select, and protect hunting areas very carefully to increase their chances of harvest success, and to place public pressures upon wildlife management agencies to increase animal populations and hunter success rates. Research evidence suggests that bagging game is an important contributor to total hunter satisfaction but, by itself, is not sufficient to explain the majority of variation in satisfaction. For example, Vaske and others (1982) found satisfaction ratings of successful (harvest success) hunters and fishermen significantly higher than those indicated by unsuccessful individuals. In another study, Vaske and others (1986) found the most important individual predictor of satisfaction among goose hunters to be "the desire to bag more birds." Deer hunter studies also indicate a positive relationship between seeing more game, getting more shots, and hunter satisfaction (Decker and others 1980; Heberlein and other 1982). Variables regarding the size of animal populations, seeing more game, and getting more shots are all factors that wildlife manage-

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Figure 1. A quality or satisfactory hunting experience is dependent upon a successful hunt and harvest, as exemplified by this deer harvest on private lands in Georgia. (Photo credit—W. G. Minser.)



Figure 2. Important determinants of a satisfactory hunting experience are being in the outdoors, temporary escape from the home-work environment, and the social companionship of fellow hunters while in camp. (Photo credit—W. G. Minser.)

ment can influence through population and habitat management. On the other hand, weather conditions, quality of the outdoors, and social companionship are more difficult to influence and are outside the traditional field of wildlife management.

The purpose of this paper is to evaluate two different aspects of hunter satisfaction: (1) the components of a quality deer hunting trip, and (2) those of a quality deer hunt. More specifically, the article reports a deer hunting study that investigates variables predicting the overall quality of a deer hunting experience and those variables that predict the quality of a deer hunt.

Methodology

The study area was the Big South Fork National River and Recreation Area, a more than 100,000 acre site administered by the National Park Service (NPS) in northeast Tennessee (Figure 3). Deer hunting season (firearms) on the area was from November 17 to December 2 in 1984, a total of 16 days.

Sampling occurred during the 1984 firearm deer hunting season. On eight randomly selected sampling days, hunters were contacted between 8:00 a.m. and 6:00 p.m. at campsites, along access roads, deer harvest checking stations, campsite permit stations, and the NPS visitor center. Individuals contacted were briefed on the purpose of the study, their questions were answered, and they were requested to complete a "deer hunter contact form," which took one to two minutes. Hunters were also notified that they might be selected to receive a longer questionnaire in the mail.

Less than 4% refused to participate in the study, while 336 hunters completed the contact form.

Of the 336 deer hunter contact forms completed, 29 had incomplete or nonlegible names and addresses. Following the procedures of Dillman (1978), each of the remaining 307 hunters were sent a 15-page mail questionnaire 10 days after the deer season closed. Three follow-up reminders, one including a second copy of the questionnaire, resulted in an adjustable response rate of 86.7%.

Data analysis consisted of descriptive summaries for the independent and dependent variables and regression models for evaluating the determinants of a quality deer hunting trip and a deer hunt.

Dependent Variables

Two dependent variables were measured. The item, "I was very satisfied with my hunting visit," was used to investigate hunter satisfaction with the overall hunting trip. Respondents indicated their agreement with the item along a 5-point scale, where 1 = strongly disagree to 5 = strongly agree. For investigating satisfaction with the deer hunt, the item was, "How would you rate the quality of deer hunting at the Big South Fork Recreation Area?" A 6-point response scale was used for this item, where 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent, and 6 = perfect.

Independent Variables

Independent variables for predicting satisfaction in the two regression models fall into three general groups. Six variables dealt with the deer hunt/harvest directly, including the number of deer seen, shots

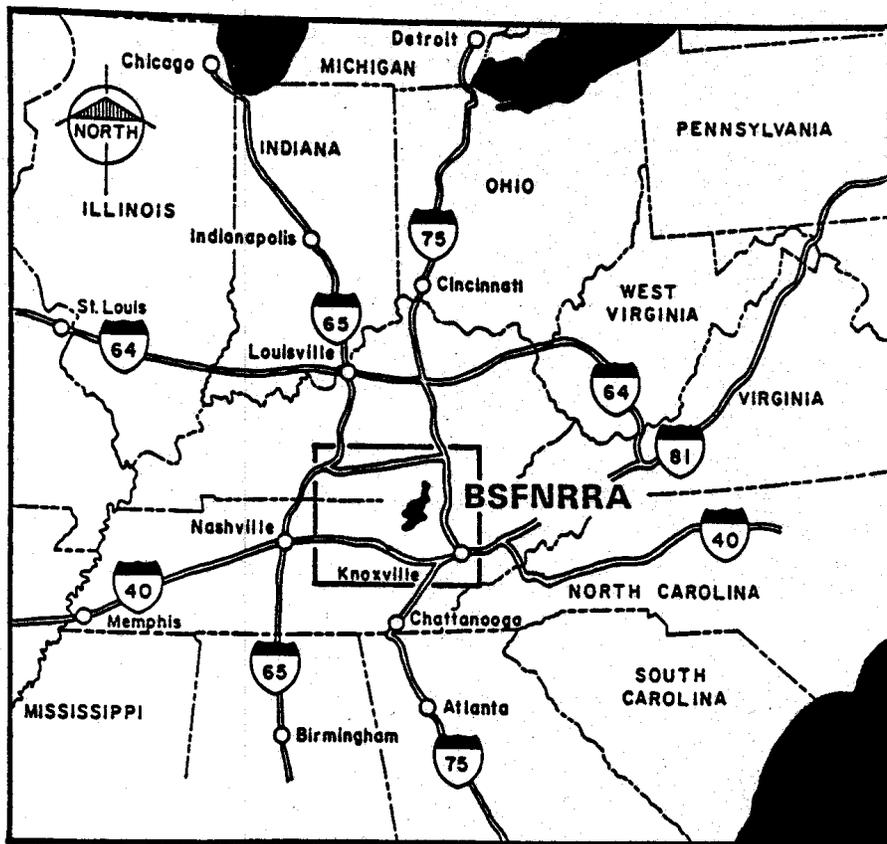


Figure 3. The Big South Fork National River and Recreation Area is located in northeast Tennessee and southeast Kentucky.

taken, and deer harvested. Respondents were also asked about the importance of getting the bag limit and the number of legal deer available. Two items pertained to social aspects: one to the actions of other hunters and the other to perceived crowding. The last two variables investigated the importance of being in the outdoors and weather conditions during the hunt.

Results

Data indicate that 46.7% of hunters saw legal deer, 23% shot at deer, 11.4% harvested deer, but that 86.9% expected to bag a deer. Thus, there was quite a discrepancy between actual and expected harvest, which should reflect on the quality of the hunt. Still, 63% of respondents said "they were very satisfied with their hunting visit." Two thirds of respondents being satisfied with their hunting visit, even though only 11% bagged deer, indicates that more than harvest success is contributing to a quality hunting visit at the Big South Fork area.

Responses to the two dependent variables indicating hunter satisfaction with the overall hunting visit and the specific hunt are presented in Table 1. The majority of hunters agreed or strongly agreed that they were very satisfied with the hunting visit. Yet 80% of them classified the activity of deer hunting itself as

Table 1. Deer hunter satisfaction with the quality of a hunting trip and with the hunt.

Satisfaction variable	Respondents	
	Number	Percent
I was very satisfied with my hunting visit.		
Strongly disagree	15	6
Disagree	36	14
Neither agree nor disagree	42	17
Agree	110	43
Strongly agree	52	20
Overall, how would you rate the quality of deer hunting at the Big South Fork Area?		
Poor	33	13
Fair	99	39
Good	75	28
Very good	32	13
Excellent	12	5
Perfect	6	2

only poor to good in the study area. An equal percent of hunters rated hunting quality "poor" and "very good" (13%).

Table 2 shows the results of the two regression analyses and which variables significantly predicted hunter satisfaction with the two dependent variables.

Table 2. Effect of predictor variables on the quality of a deer hunting experience and a quality deer hunt.

Independent variables	Dependent variable 1 (deer hunting trip) ^a		Dependent variable 2 (deer hunt) ^a	
	Beta	F value significance	Beta	F value significance
No. of deer seen	0.02	0.754	0.12	0.083
No. of shots taken	0.05	0.484	0.14	0.089
No. of deer harvested	0.04	0.550	-0.09	0.203
Expected to harvest deer	-0.04	0.483	-0.03	0.631
Getting bag limit	0.04	0.518	-0.02	0.752
Not enough legal deer	-0.30	0.001 ^b	-0.49	0.001 ^b
Action of other deer hunters bothered me	-0.18	0.054 ^b	-0.03	0.668
Perceived crowding	-0.16	0.009 ^b	0.09	0.176
Weather conditions	-0.06	0.271	0.01	0.837
Being in the outdoors is more satisfying to me than being successful at bagging a deer	0.36	0.001 ^b		
R ² for the models	0.41	0.001 ^b	0.03	0.650
			0.31	0.001 ^b

^aDependent variable 1: "I was very satisfied with my hunting visit." Dependent variable 2: "How would you rate the quality of deer hunting in the Big South Fork Recreation Area?"

^bStatistically significant at the 0.05 level.

Determinants of a "quality deer hunting visit" predicted 41% of the variance (model one). Four variables had a significant effect ($P \leq 0.05$) on hunting trip satisfaction. The variable that influenced visit satisfaction the most was "being in the outdoors is more satisfying to me than being successful at bagging a deer" (beta = 0.36). Second in importance, but in a negative direction, was "not enough legal deer" (beta = -0.30). Also influencing satisfaction of the hunting visit in a negative way were "the actions of other hunters" and "hunter perception of crowding." Variables directly related to the deer harvest were not significant factors in affecting trip satisfaction.

Concerning satisfaction with just the hunt, 31% of the total variance was explained. The only significant variable was "not enough legal deer," a negative predictor (beta = -0.49). Two other harvest related variables, number of deer seen and shots taken, were positive contributors to hunt satisfaction, but they were not statistically significant. Interestingly, the variable "being in the outdoors is more satisfying to me than being successful at bagging a deer" was not a significant predictor of hunt satisfaction, yet it was the most important contributor to hunting visit satisfaction.

Discussion and Conclusions

Past hunter satisfaction research has shown mixed results in the importance of the hunt/harvest to the

satisfaction of the overall hunting experience. However, most of these studies have not analyzed aspects of the hunt and of the hunting trip experience as two distinct dimensions of hunter satisfaction. Our analysis was designed to see if there were differences in the specific elements that predict a quality deer hunt and a quality deer hunting experience. It was assumed that the two may be different aspects of hunter satisfaction, with different variables contributing to each. If so, the analysis would lend support to the multiple satisfaction model of hunter satisfaction.

Our findings indicate that in the eyes of the hunter there really may be a difference between a *quality deer hunting trip* or experience, and a *quality deer hunt* or harvest. The influence of the variable, "being in the outdoors is more satisfying to me than being successful at bagging a deer" was a major distinction between a quality hunting visit and a hunt. It was an important determinant of the former but had very little effect on the hunt. The quality of the hunt seemed to be more related to deer population variables than general value of the outdoors.

These findings have several preliminary implications, for both wildlife managers and researchers. First, if wildlife management is to fulfill its objective of providing quality hunting experiences, it must be concerned with both the hunt/harvest itself and the total hunting trip experience. A quality hunt may be strongly influenced by animal population- and har-

vest-related variables, yet these variables seem to be only partially related to an overall quality hunting trip. Wildlife management science has long been influential at manipulating animal and habitat factors to improve the quality of hunting. However, it will have to be equally strong at manipulating the outdoor qualities and social conditions (crowding) of hunting environments if it is to provide a total quality hunting experience. The multiple satisfaction approach to hunter satisfaction requires a multiple management approach to addressing these less traditional determinants of hunter satisfaction. Quality of the outdoor environment, hunter behavior, and crowding are factors that wildlife management agencies can influence through proper resource and support facility management, hunter education courses, law enforcement, and regulating and/or allocating numbers of hunters in specific areas.

For wildlife and recreation researchers, it may be necessary to specify whether they are investigating the overall hunting experience or the hunt when conducting hunter satisfaction research, for there appears to be a difference in the mind of deer hunters. The importance of the two-dimensional approach when analyzing hunter satisfaction lies in the distinction among variables that explain the variance in the two approaches. Separation of the hunt from the overall hunting experience for analytical purposes serves to offer traditional support for the multiple satisfaction approach, identifying significant variables that explain different dimensions of hunter satisfaction.

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