

# RECREATION-RELATED VALUES, ATTITUDES, AND BELIEFS OF BUSINESS OWNERS IN THE SARANAC LAKES REGION OF NEW YORK STATE'S ADIRONDACK PARK

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**Abstract.**—Public forest management agencies often work with recreation-related business owners as they implement management policies. The main objective of this study is to quantify the values, beliefs, and attitudes of business owners in the Saranac Lakes Region of New York's Adirondack Park regarding motorboating, nonmotorized boating, and personal watercraft use. The Theory of Planned Behavior (Ajzen, 1991) provides the theoretical basis for the study. The influence of resource- and recreation-related values on attitudes and beliefs is studied. A survey of the 58 recreation-related business owners identified in the Saranac Lakes Wild Forest was conducted. A response rate of 43 percent (25 questionnaires) was obtained. A path analysis was used to identify significant relationships between values, attitudes, and beliefs toward motorboating, nonmotorized boating, and personal watercraft use. Results indicate significant relationships between resource values and attitudes and beliefs for some forms of boating; few significant relationships were identified between recreation-related values and attitudes and beliefs. Results from the entire study will be used to identify management implications for public and private forest properties in the Saranac Lake region.

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## 1.0 INTRODUCTION

Public forest management agencies work with diverse stakeholder groups as they implement forest management policies in the Northern Forest Region. One such stakeholder group is recreation-related business owners (e.g., guide service, sporting goods, campground, marina, lodging, and restaurant owners). For forest management agencies to implement policies successfully, it is necessary for managers to understand the values, beliefs, and attitudes of this group toward outdoor recreation activities.

This study focuses on the values, beliefs, and attitudes of business owners concerning the use of motorized boats, nonmotorized boats, and personal watercraft (PWC) within the Saranac Lakes Region of New York State's Adirondack Park. The framework for this study is the Theory of Planned Behavior (Ajzen, 1991; Hrubec et al., 2001) which was chosen because of its focus on the relationships between the concepts of beliefs and attitudes. Understanding beliefs and attitudes toward boating can provide public land managers with important insights for management decisions. In addition, understanding how values influence attitudes and beliefs can provide managers further insight into what is important to stakeholders concerning resource management.

The objectives of this study are: (1) to quantify the values, attitudes, and beliefs of business owners toward nonmotorized boating, motorized boating, and PWC use within the Saranac Lakes Wild Forest area; and (2) to identify the relationships among the values, beliefs, and attitudes of business owners for each type of boating within the Saranac Lakes Wild Forest area. Specifically, the following are hypothesized:

1. There is a significant relationship between *beliefs* and *attitudes* for each of the three types of

boating in the Saranac Lakes Wild Forest area ( $p < 0.05$ ).

2. There is a significant relationship between *values* and *beliefs* for each of the three types of boating in the Saranac Lakes Wild Forest area ( $p < 0.05$ ).
3. There is a significant relationship between *values* and *attitudes* for each of the three types of boating in the Saranac Lakes Wild Forest area ( $p < 0.05$ ).

## 2.0 LITERATURE REVIEW

The Theory of Planned Behavior (Ajzen, 1991) provides a framework for understanding the relationship among beliefs and attitudes toward boating-related behaviors explored in this study.

*Beliefs* are an individual's conceptions about a specific behavior. Ajzen (1991) describes three basic types of beliefs: behavioral (i.e., beliefs about the likely consequences of a certain behavior), normative (i.e., beliefs about the expectations of others concerning a certain behavior), and control (i.e., beliefs about factors that may limit or enable a certain behavior). Beliefs influence *attitudes*, defined by Ajzen and Fishbein (1980) as the positive or negative evaluations of performing specific behaviors. For example, an individual's beliefs about the consequences of a specific behavior (i.e., behavioral beliefs) will influence his or her attitudes toward the behavior. Likewise, normative beliefs influence an individual's

perceptions concerning the social pressure for or against a specific behavior (i.e., subjective norms; Hrubec et al., 2001), and control beliefs influence the individual's perceptions concerning the ease or difficulty of performing a specific behavior (i.e., perceived behavioral controls; Ajzen and Driver 1992). These attitudes and perceptions (herein called "attitudes") concerning a behavior influence an individual's *intention* to carry out that behavior. Intention directly influences carrying out the actual *behavior* (Ajzen, 1991).

Recent studies indicate that personal values may be theoretically and practically important to the Theory of Planned Behavior. Hrubec et al. (2001), for example, identify significant relationships between wildlife-related values and the beliefs and attitudes included in their study of hunting intentions and behaviors. Dougherty et al. (2003) likewise indicate the influence of wildlife-related values on attitudes toward specific management policies associated with natural resource use for hunting. Previous research posits the existence of relationships between personal values for natural resources and both beliefs about resource use and attitudes toward use. Thus, this study will focus on the influence of values on beliefs and attitudes related to boat use on water bodies within the Saranac Lakes Wild Forest area. The relationships between values, beliefs, and attitudes are operationalized in Figure 1.

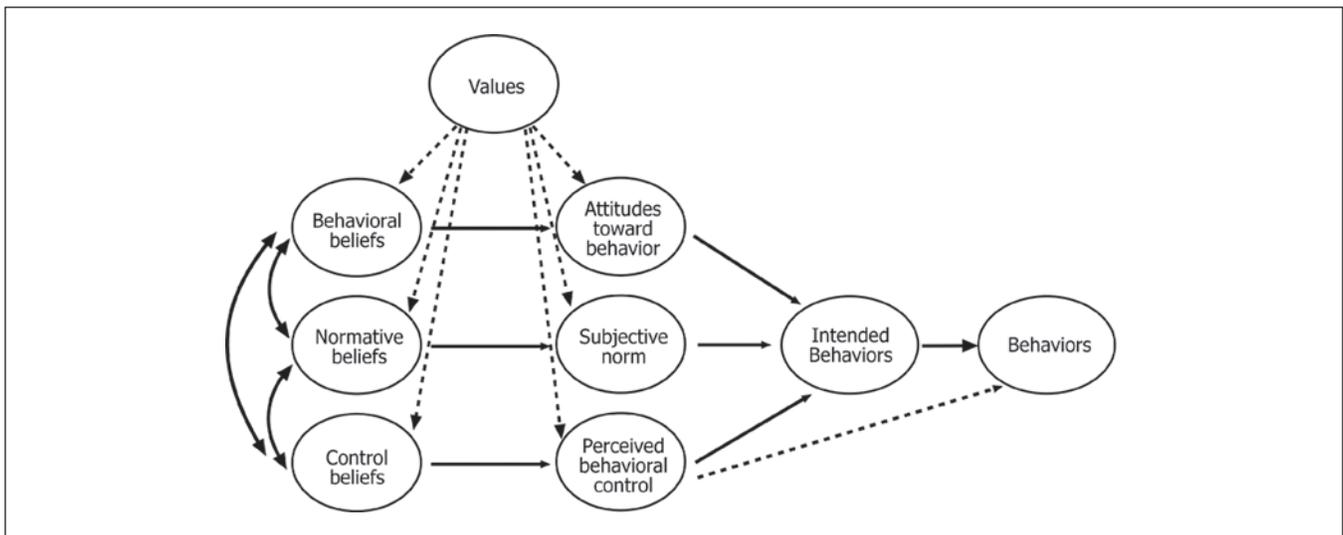


Figure 1.—Operationalized relationships among concepts (based on Ajzen, 1991; Hrubec et al., 2001). The concepts of intended behaviors and behaviors are not examined in this study.

### 3.0 METHODS

In the fall of 2005, a mailing list of all recreation-related businesses near the Saranac Lakes Wild Forest in New York's Adirondack Park was compiled. The list comprised 66 businesses, including campgrounds, marinas, restaurants, bed and breakfasts, hotels, motels, tour boat operators, and hunting and fishing guide services identified through visitor guidebooks, chamber of commerce publications, individual business brochures, and the local phone directory.

The qualitative results of 20 land manager interviews conducted during 2005 were used to develop a business owner questionnaire. Five-point Likert-scaled questions were included to obtain data on the concepts of values, beliefs, and attitudes toward motorboat, nonmotorized boat, and personal watercraft use. Resource value questions focused on the importance of natural resources in general to the business owner, while recreation-related value questions focused on the importance of outdoor recreation to the owner. Business owners were asked to indicate their level of agreement with positive statements concerning each concept (i.e., -2 = strong disagreement, 0 = neutral, and 2 = strong agreement). Three nearly identical sets of questions (i.e., one for nonmotorized boating, one for motorized boating, and one for PWC use) were included on the questionnaire; the only difference between the questions was the type of boating mentioned in the question. Questions were also included on the characteristics of the business, the business owner's personal recreation interests, and opinions concerning current boating regulations and access.

The questionnaires were distributed by mail in spring 2006 to all 66 business owners in the Saranac Lakes Wild Forest area. A modified total survey design method was used for the mailing (Dillman, 1978). The first and third mailings consisted of the questionnaire, cover letter, and the postage-paid return envelope; the second and fourth mailings were reminder postcards. Following the completion of the four mailings, all nonrespondents were sent a one-page questionnaire by certified mail to identify significant differences

(using a two-independent sample t-test;  $p < 0.05$ ) in their years in business, annual number of months of business operation in 2005, and attitudes regarding the use of nonmotorized and motorized boats and personal watercraft.

Data from the surveys was entered into SPSS. Descriptive statistics were identified. Factors were created for each value, belief, and attitude by averaging the three questions related to each concept. The internal consistency of each factor was then identified using Cronbach's alpha. For exploratory research, a Cronbach's alpha at or above 0.60 indicates the adequate reliability of a factor (Hair et al., 1998, p. 118). Significant correlations were identified between respondents' experience with each type of boating and their values, beliefs, and attitudes. A path analysis was conducted for each type of boat use (i.e., motorized, nonmotorized, and personal watercraft) to identify significant relationships ( $p < 0.05$ ) between values, beliefs, and attitudes as indicated by standardized beta coefficients.

### 4.0 RESULTS

#### 4.1 Response and Nonresponse

Out of the 66 surveys sent, eight surveys were undeliverable, leaving a qualified sample of 58 business owners. Of the 58 qualified surveys, 25 completed surveys were returned for a response rate of 43 percent. All 33 nonrespondents were sent a one-page survey used to test for nonresponse bias. Thirteen of the nonrespondents returned the nonresponse survey. No significant differences between respondents and nonrespondents were identified for any of the business characteristics or attitudes included on the nonresponse survey, indicating that the survey respondents are likely representative of the population of recreation-related business owners in the Saranac Lakes area.

#### 4.2 Characteristics of Business Owners

Recreation-related businesses within the Saranac Lakes area were diverse; 32 percent of respondents owned a fishing, hunting, or other type of guide service, 32 percent owned a bed and breakfast or inn,

20 percent owned a hotel or motel, 12 percent owned a sporting goods store, 12 percent owned a restaurant, 8 percent owned a marina, and 28 percent owned some other type of recreation business. Nine of the business owners operated more than one of these types of businesses. Respondents indicated that they had owned or managed their business for an average of 17.2 years. Eighteen out of 24 of the respondents indicated that their business was open year-round; the remaining businesses were open 11 months per year.

The majority of responding business owners (71 percent) indicated that their customers participated in nonmotorized boating; 42 percent indicated that customers used motorized boats while 13 percent indicated customer use of personal watercrafts. Business owners were also asked to rank the three types of boating according to their perceptions concerning the relative economic impact of each type of boating on the Saranac Lakes area. Motorboating was perceived by respondents to have the largest economic impact on the area, followed by nonmotorized boat use, and, lastly, personal watercraft use.

When asked for opinions concerning the level of existing access for each type of boating, 76 percent of the respondents indicated that access for motorboating was adequate; 4 percent that less motorboat access was needed and 20 percent that more access was needed. For nonmotorized boating, 83 percent of respondents indicated that access was adequate; no one indicated that less access was needed but 17 percent indicated that more access was needed. For personal watercraft use, 56 percent of the respondents indicated that access was adequate while 40 percent indicated that less access was needed; 4 percent indicated the need for more access.

Business owners on average indicated strong agreement to the questions concerning resource-related and recreation-related values. The concept of “resource value” had a mean of 1.71, similar to the mean of 1.70 for “recreation values” (Table 1). Mean attitudes and beliefs toward nonmotorized boating were all positive, indicating that business owners generally agreed with

positive statements concerning this type of boating. While the mean behavioral belief of business owners for motorized boating was slightly negative (-0.36), other attitudes and beliefs for motorized boating were positive, indicating agreement with positive statements concerning motorized boating. However, for personal watercraft use, disagreement with the positive statements was indicated for mean attitudes and beliefs of business owners (with the exception of control beliefs and behavioral controls which were 0.38 and 0.72, respectively).

### 4.3 Path Analysis Results

Testing for Cronbach’s alpha revealed that only one factor had an alpha value below 0.60 (i.e., perceived behavioral control for nonmotorized boating). Significant relationships were identified between some of the factors through path analysis (Figure 2). For nonmotorized boating, significant and positive relationships were identified between resource

**Table 1.—Means and standard errors for values, beliefs, and attitudes toward each type of boating activity (n = 25)**

Activity Concept	Mean	Standard error
<b>General</b>		
Resource value	1.71	0.10
Recreation value	1.70	0.07
<b>Nonmotorized boating</b>		
Behavioral Belief	0.99	0.17
Attitude toward behavior	1.51	0.15
Normative belief	0.52	0.19
Subjective norm	0.68	0.18
Control belief	0.59	0.14
Behavioral control	1.13	0.13
<b>Motorized boating</b>		
Behavioral belief	-0.36	0.21
Attitude toward behavior	0.33	0.26
Normative belief	0.52	0.15
Subjective norm	0.89	0.16
Control belief	0.59	0.15
Behavioral control	0.81	0.17
<b>Personal Watercraft Use</b>		
Behavioral belief	-1.19	0.18
Attitude toward behavior	-1.24	0.24
Normative belief	-0.48	0.21
Subjective norm	-0.31	0.22
Control belief	0.38	0.15
Behavioral control	0.72	0.13

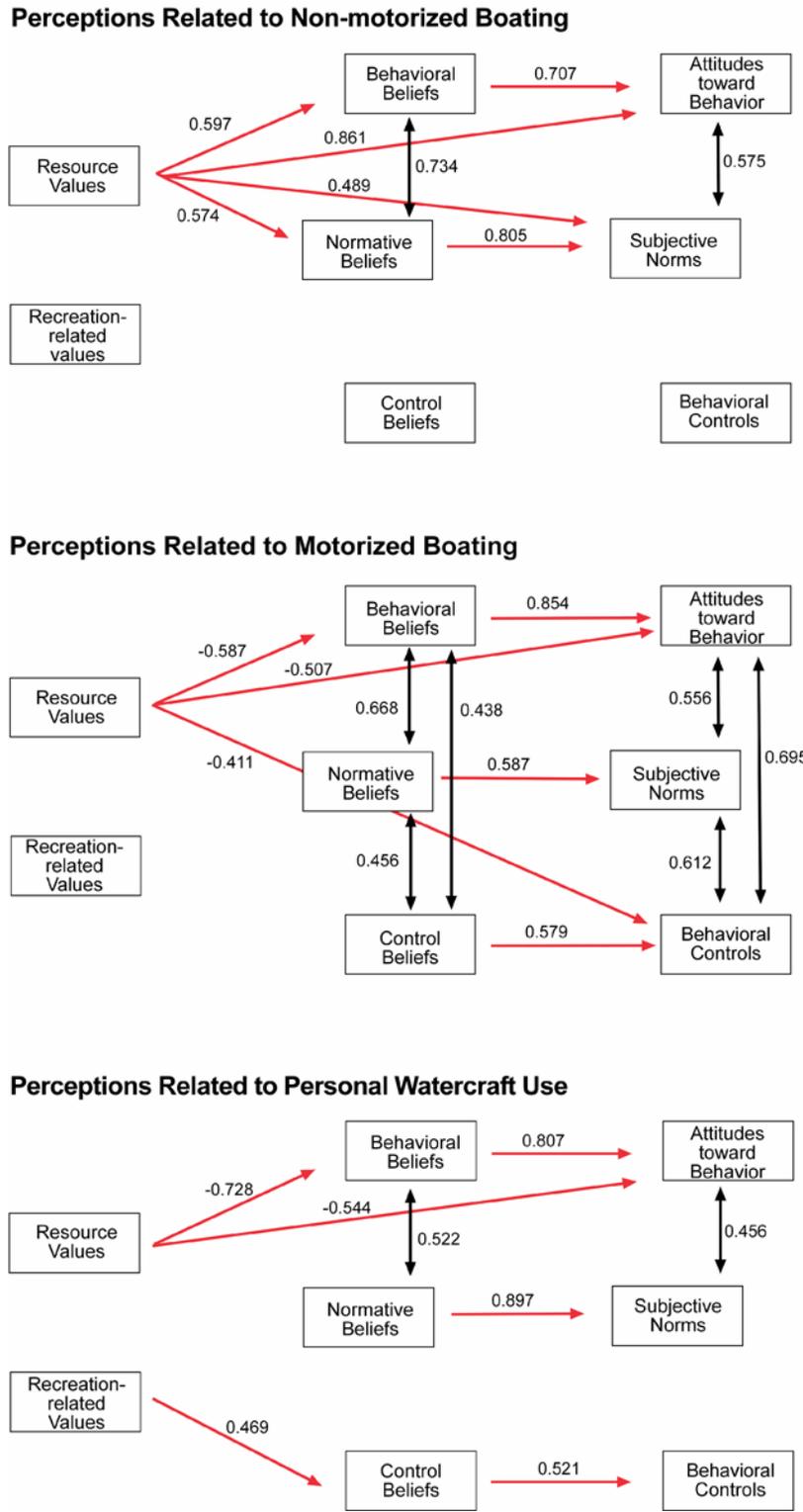


Figure 2.—Results of the path analyses for nonmotorized boat, motorized boat, and personal water craft use. Only significant relationships ( $p < 0.05$ ) are shown.

values and behavioral beliefs, normative beliefs, and attitudes toward behaviors, as well as between behavioral beliefs and attitudes, and normative beliefs and subjective norms. The path analysis for perceptions concerning motorized boating indicated slightly different relationships. For example, there is a significant but negative relationship between resource values and both behavioral beliefs and normative beliefs. A negative relationship was also identified between resource value and behavioral controls. For personal watercraft use, negative, significant relationships were identified between resource values and both behavioral beliefs and attitudes toward behavior. Positive, significant relationships were identified between recreation-related values and control beliefs, and between control beliefs and behavioral controls.

## 5.0 DISCUSSION

The first objective of this study was to quantify the values, attitudes, and beliefs of business owners related to each type of boating. The means for respondents' behavioral beliefs and attitudes toward behaviors were positive for nonmotorized boating, close to neutral for motorized boating, and negative for personal watercraft use. These means indicate that business owners on average positively evaluated nonmotorized boat use, had a generally positive but near neutral perception of motorized boating, and had a negative perception of personal watercraft use. Control beliefs and behavioral controls were positive for all three types of boating, indicating that respondents' perceive current boating access, regulations, and enforcement to be adequate for all three types of boating.

The second objective was to identify the relationships among the values, beliefs, and attitudes of business owners toward nonmotorized boating, motorized boating, and PWC use for the Saranac Lakes area. The first hypothesis was that a significant relationship exists between beliefs and attitudes for each of the three types of boating. This hypothesis was accepted for nonmotorized boating, motorized boating, and personal watercraft use for the relationships between behavioral beliefs and attitudes toward the behavior,

and between the normative beliefs and subjective norms; there was also a significant relationship between control beliefs and behavioral controls for both motorized boating and personal watercraft use. All of these significant relationships were positive.

The second hypothesis was that a significant relationship exists between values and beliefs for each of the three types of boating. The hypothesis was accepted for the relationships between resource value and behavioral beliefs for all three types of boating. These results indicate that the respondents' personal values concerning natural resources did influence their beliefs concerning the three types of boating. However, it is important to note that these relationships were negative for both motorized boating and personal watercraft use. In other words, as a respondent's perceived resource value increased, their level of agreement with belief statements concerning motorized boating and personal watercraft use decreased. Significant relationships were also identified for nonmotorized boating between resource value and normative beliefs, and, for PWC use, between recreation values and control beliefs.

The third hypothesis was that a significant relationship exists between values and attitudes for each of the three types of boating. This hypothesis was accepted for each type of boating for the relationship between resource values and attitudes toward the behavior. These results indicate that the respondents' personal values concerning natural resources did influence their attitudes toward the three types of boating. There was also a significant positive relationship between resource value and subjective norm for nonmotorized boating, and between resource value and behavioral controls for motorized boating.

Examination of the correlations of past boating experience on attitudes revealed further insights. Specifically, level of participation in nonmotorized boating was significantly and positively correlated ( $r = 0.449$ ;  $p < 0.05$ ) with attitudes toward nonmotorized boating; similar findings were revealed for motorized boating ( $r = 0.512$ ;  $p < 0.01$ ). However, the level of participation in motorized

boating was inversely correlated with attitudes toward nonmotorized boating ( $r = -0.471$ ;  $p < 0.05$ ). In other words, the more frequently a respondent participated in motorized boating, the more likely they were to have a less positive evaluation of nonmotorized boating.

## 6.0 CONCLUSION

The results of this study indicate that resource value appears to influence personal attitudes and beliefs in this setting. In one instance (i.e., for nonmotorized boating), resource value was also found to influence the respondents' perceptions of the beliefs and attitudes of other individuals (i.e., normative beliefs and subjective norms). The fact that no significant relationships were identified between resource value and control beliefs and between resource value and behavioral controls indicates that respondents' may have the perception that factors such as access and regulations are outside of their control and have little to do with their personal values. Only one significant relationship was identified for recreation value (i.e., relationship between recreation value and control beliefs), indicating that resource values may provide a fundamentally stronger basis for beliefs and attitudes than do recreation-related values.

While significant relationships were identified through this study, it is important to note several limitations. First, even though the entire population of recreation-related business owners in the Saranac Lakes area was studied, we still had a small number of respondents. This small number of respondents constrained the complexity of the relationships that could be studied using a path analysis and suggests the need for further replication of these tests. It also made it impossible to conduct a detailed analysis of how business type may influence owners' attitudes and beliefs. In addition, the results are not generalizable to populations outside of the Saranac Lakes area since both the qualitative and quantitative portions of this study were focused on beliefs specific to this area.

Nevertheless, the fact that significant relationships were identified, given the small number of respondents, is important in itself. Basing the

questionnaire on the qualitative findings of the first phase of this study with land managers is likely one of the reasons for these significant relationships (i.e., we were able to focus the questionnaire on the actual beliefs and attitudes of stakeholders residing in the Saranac Lakes Wild Forest area). Using the Theory of Planned Behavior as a framework for this study was effective in revealing relationships between concepts, especially those concepts directly related to an individual's own personal perceptions (i.e., resource value, behavioral beliefs, and attitudes toward the behavior).

In summary, examining stakeholder perceptions of specific recreational activities revealed insight into the positive perceptions of business owners toward nonmotorized and motorized boating. It appears that business owners are very reliant on both of these types of boating for the profitability of their businesses, and wish to ensure that nonmotorized and motorized boating experiences are maintained for visitors in the future. Perceptions concerning personal watercraft, however, were more negative and appeared to conflict with the resource-related values of business owners. These results can be used by public area managers to better understand the values and perceptions of stakeholders, and to create recreational settings that better meet the values of stakeholders.

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