Perceptions of Stakeholders in the Saranac Lakes Region of New York

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A study of the values, beliefs, and attitudes of landowners, business owners, and campers towards boating.

Funding support for this project was provided by the Northeastern States Research Cooperative (NSRC), a partnership of Northern Forest states (New Hampshire, Vermont, Maine, and New York), in coordination with the USDA Forest Service.
<http://www.nsrcforest.org/>
Interviews of land managers and mail surveys of local landowners, business owners, and campers were used to collect data in the Saranac Lakes Wild Forest area of New York’s Adirondack Park concerning the values, beliefs, and attitudes of stakeholders towards participation in three types of boating: non-motorized, motorized, and personal watercraft (e.g., jetski).

The results of this study can be used by forest managers throughout the northeast to better understand differences in perceptions between stakeholder groups towards water-based recreation.
The objectives of this study were to:

- determine differences and similarities between the values, beliefs, and attitudes of landowners, business owners, and campers in the Saranac Lakes Wild Forest area towards participation in three types of boating; and

- identify the relationships between the values, attitudes, and beliefs of the three stakeholder groups.
• Water-based recreation such as boating is popular in forests throughout the northeast.

• Conflicts between users arise as different stakeholders compete for the same resources.

• By understanding differences in the beliefs and attitudes of stakeholders, the cause of specific social conflicts and how to resolve them can be addressed through management.

• By understanding similarities in beliefs and attitudes, consensus can be generated among stakeholders for management strategies.
The Location of the Saranac Lakes Wild Forest

79,000 acres of state land
142 water bodies

(NYSDEC, 2008)
Theory of Planned Behavior

(Hrubes, Ajzen, & Daigle, 2001)
Relationships studied

Values

Behavioral beliefs

Attitudes toward behavior
Definitions of beliefs and attitudes

• **Values**: ideals that form an individual’s personal basis for their preferences (Brown, 1984).

• **Behavioral Belief**: an individual’s conceptions about a specific behavior (Ajzen, 1991; Hrubes, Ajzen, & Daigle, 2001).

• **Attitude towards behavior**: an individual’s positive or negative evaluation of a specific behavior (Ajzen, 1991; Hrubes, Ajzen, & Daigle, 2001).
Methods

- **Phase 1:** Interviews with 20 land managers (2005)
- **Phase 2:** Mail surveys of
  - Landowners (2006)
  - Business owners (2006)
  - Campers (2007)
- **Phase 3:** Discussion session with land managers
Methods: Phase 1

- Interviews were conducted with:
  - 9 state agency personnel
  - 7 directors of land-managing associations
  - 4 commercial recreation providers who manage shoreline property

- Interview results were used to write mail surveys
Methods: Phase 2

• The surveys were conducted through a series of four mailings each (Dillman, 2000)

• The following questions were included:
  • Age, gender, race, education
  • Personal recreation participation
  • Resource-related values
  • Beliefs and attitudes towards non-motorized boating, motorized boating, and personal watercraft use
Methods: Phase 2

- Statements included on the questionnaires for the values, attitudes, and beliefs (i.e., factors) towards boating participation (shown in the notes below) were based on the results of the land manager interviews.
- Several statements were included for each factor, and were repeated for non-motorized boating, motorized boating, and personal watercraft use. Respondents were asked to indicate their agreement or disagreement with each statement using a scale of −2 (strong disagreement) to 0 (neutral) to 2 (strong agreement).
- A confirmatory factor analysis was completed to validate groupings of statements into factors.
- Responses for statements were averaged together for each factor.
- Factor means and correlations between the factors were calculated.
- Analysis of Variance (ANOVA) tests were run between the stakeholder groups for each type of boating.
A discussion of the study results was held in the spring of 2008 with land managers in the Saranac Lakes Wild Forest area.
Results: Response rates

- **Landowners:**
  - 1,000 questionnaires (860 qualified)
  - 423 returned (49% response rate)

- **Business Owners:**
  - 66 questionnaires (complete population; 58 qualified)
  - 25 returned (43% response rate)

- **Campers:**
  - 1,000 questionnaires (950 qualified)
  - 442 returned (47% response rate)
## Demographics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Landowners</th>
<th>Business Owners</th>
<th>Campers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>70% M</td>
<td>64% M</td>
<td>63% M</td>
</tr>
<tr>
<td></td>
<td>30% F</td>
<td>36% F</td>
<td>37% F</td>
</tr>
<tr>
<td>Age (avg.)</td>
<td>61</td>
<td>55</td>
<td>51</td>
</tr>
<tr>
<td>Race</td>
<td>97% C</td>
<td>100% C</td>
<td>96% C</td>
</tr>
<tr>
<td></td>
<td>2% NA</td>
<td></td>
<td>3% NA</td>
</tr>
<tr>
<td>Education (yrs.)</td>
<td>16</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>
### Results: Values of stakeholders

<table>
<thead>
<tr>
<th>Concept</th>
<th>n</th>
<th>Factor mean Resource-related value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landowners</td>
<td>420</td>
<td>1.8</td>
</tr>
<tr>
<td>Business owners</td>
<td>25</td>
<td>1.8</td>
</tr>
<tr>
<td>Campers</td>
<td>440</td>
<td>1.8</td>
</tr>
</tbody>
</table>
Results: Beliefs of stakeholders towards types of boating

<table>
<thead>
<tr>
<th>Concept</th>
<th>Non-motorized</th>
<th>Motorized</th>
<th>PWC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landowners</td>
<td>0.9</td>
<td>-0.6</td>
<td>-1.3</td>
</tr>
<tr>
<td>Business owners</td>
<td>0.8</td>
<td>-0.8</td>
<td>-1.4</td>
</tr>
<tr>
<td>Campers</td>
<td>1.3</td>
<td>-1.0</td>
<td>-1.3</td>
</tr>
</tbody>
</table>
### Results: Attitudes of stakeholders towards types of boating

<table>
<thead>
<tr>
<th>Concept</th>
<th>Non-motorized</th>
<th>Motorized</th>
<th>PWC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landowners</td>
<td>1.4</td>
<td>0.6</td>
<td>-1.0</td>
</tr>
<tr>
<td>Business owners</td>
<td>1.5</td>
<td>0.3</td>
<td>-1.2</td>
</tr>
<tr>
<td>Campers</td>
<td>1.6</td>
<td>-0.1</td>
<td>-1.0</td>
</tr>
</tbody>
</table>
Results:
Correlations (r) between factors for non-motorized boating

Landowners; Business owners; Campers; *Significant at p < 0.05)
Results: Correlations between factors for motorized boating

Landowners; Business owners; Campers; *Significant at $p < 0.05$)
Results: Correlations between factors for personal watercraft use

Landowners; Business owners; Campers; *Significant at p ≤ 0.05)
Results:

Outreach efforts

• Results were presented to state land managers in spring, 2008 and will be used in the creation of the Saranac Lakes Unit Management Plan.

• A report presenting the detailed results of this study is available to the public at:

  www.esf.edu/for/kuehn/reports.htm
This study provides important insight into stakeholder perceptions for forest managers, especially those who manage for boating within forest areas.

The results indicate that (in this case) values do appear to be related to both beliefs and attitudes, and that strong relationships exist between beliefs and attitudes towards each type of boating.

Use of ANOVA to compare the beliefs and attitudes of stakeholders revealed important differences concerning the beliefs and attitudes towards participation in non-motorized and motorized boating, indicating a potential source of social conflict between local residents and campers.

Important similarities between stakeholders were identified concerning the attitudes and beliefs towards personal watercraft use, indicating an opportunity for consensus-building by land managers with regard to the management of this type of boating.

Identifying the attitudes and beliefs of stakeholders could be a valuable tool for land managers as they seek to identify mechanisms for consensus-building among stakeholders.
The results of this study highlight the need for detailed information about the beliefs and attitudes of stakeholders with regard to outdoor recreation.

Further study is needed with regard to:

- the relationships among values, beliefs, and attitudes in different settings, and
- the beliefs and attitudes of stakeholder groups with regard to different forms of forest-based recreation.

The mixed methods approach of this study (i.e., using both interviews and surveys) provided a mechanism for pinpointing beliefs and attitudes prior to survey writing. Future studies using this methodology will likely provide the detailed information on stakeholder perceptions needed by forest managers.
List of Products: Presentations

The following presentations were made at research conferences:


The following publication were completed or are in review:


- **Perceptions of Stakeholders towards boating in the Saranac Lakes Wild Forest Area.** 2008. SUNY ESF: Syracuse, NY. Online at [www.esf.edu/for/kuehn/reports.htm](http://www.esf.edu/for/kuehn/reports.htm)
The following publications are proposed for submission in 2008:


- Structural equation modeling of stakeholder perceptions towards boating participation. *Journal of Leisure Research*.

- Beliefs and attitudes of male and female landowners towards boating participation in New York’s Saranac Lakes Wild Forest. *Journal of Environmental Psychology*. 