This study tested a path model for understanding the relationships between place satisfaction, experience use history, place identity, place dependence, affective attachment, social bonding, and intention to return using a survey of anglers in Santee Cooper Country (SCC), a popular destination for angling-based tourism in South Carolina. The research also examined the moderating effect of recreationists’ self-reported angling skill and level of familiarity with SCC. For angling skill, previous studies have shown that skilled anglers have stronger place preferences (Bricker and Kerstetter 2000, Kyle et al. 2003), which determine resource substitution behaviors and individuals’ attachment to place. As Havitz and Dimanche (1997) stated, more experienced recreationists’ awareness set (the group of potential setting substitutes people simply know) for resource substitutes is more extensive, and their evoked set (the group of potential setting substitutes they actually consider) is substantially narrower than those of less experienced recreationists. Since skill level plays an important role in recreationists’ attachment to place as well as in recreational behavior, this study also examined its impact on these hypothesized relationships.

2.0 LITERATURE REVIEW

2.1 Place Attachment

In the place literature, place attachment research has examined human-place bonding primarily in terms of emotional and functional attachments to specific locales (Low and Altman 1992). While affect appears to be central to bonding processes (Low and Altman 1992), the literature has also acknowledged several other aspects of attachment. These facets include place identity, which refers to the cognitive connection between the self and the physical environment (Proshansky 1978). In this context, the physical environment offers individuals an opportunity to express and affirm their identity (Kyle et al. 2004). Place attachments that reflect people’s appreciation of a setting’s functional utility have also been acknowledged (i.e., place dependence) (Stokols and Shumaker 1981). Place dependence is connected to...
a setting’s ability to facilitate desired outcomes (Stokols and Shumaker 1981). Finally, research has also shown that place attachments can be an artifact of individuals’ social ties to a place (Mesch and Manor 1998, Kyle and Chick 2007). In these contexts, place attachments are driven by the bonds that people share with others. The study of place attachment in the context of outdoor recreation has built upon the work of geographers and environmental psychologists (Buttimer 1980, Tuan 1980, Low and Altman 1992).

2.2 Experience Use History
Experience use history (EUH) refers to recreationists’ past experience with an activity or setting (Hammitt et al. 2004). It most commonly measures recreationists’ total visits to an area, their years of use, and frequency and duration of participation (Hammitt and McDonald 1983, Schreyer et al. 1984). In general, the EUH literature has illustrated that more experienced recreationists display greater knowledge and familiarity with activities and places (Schreyer et al. 1984), which provides them with a richer cognitive and affective base for appreciating the resource and activities (Manning 1999). Because use history is cumulative, Schreyer et al. (1984) defined EUH in terms of a continuum, where recreationists begin as novices and become experienced or specialized users of the resource and/or activity. Past work has shown that recreationists’ repeated and lasting place interactions promote emotional ties to a place (Buttimer 1980, Hay 1998 Hammitt et al. 2009). Since individuals can be very habitual in returning to a site and become loyal to certain places (Havitz and Dimanche 1997), EUH is regarded as an antecedent of recreationists’ attachment to place and their behavior regarding returning. Previous research has shown that EUH is a strong predictor of human-place bonding and provides insight into recreationists’ familiarity and satisfaction with specific environments.

2.3 Place Satisfaction
In the place literature, place satisfaction is conceived of as an individual’s assessment of how well a particular setting serves individual needs (Ladewig and McCann 1980, Mesch and Manor 1998). Although place satisfaction is recognized as an important factor facilitating recreationists’ returning behavior, research related to place satisfaction is oddly absent from the place literature (Stedman 2002). Most researchers in community sociology argue that place satisfaction and place attachment should be distinguished from one another (Mesch and Manor 1998, Theodori 2000). Since some researchers (Mesch and Manor 1998) point out that satisfaction does not automatically ensure the formation of place attachment, there is a need to examine the relationship these constructs share (Theodori 2001). In this investigation, place satisfaction was modeled as an antecedent of place attachment. The consumer behavior literature supports this directionality. In studies of consumers’ brand loyalty, models have typically shown that satisfaction is a primary antecedent of attitudinal loyalty (Bitner 1990, Yu 2001). Research published in the leisure literature has demonstrated that place attachment shares conceptual similarity with attitudinal loyalty (Kyle et al. 2004, Kyle et al. 2006). Thus, consistent with this prior work, place satisfaction was also modeled as an antecedent of place attachment in this study.

2.4 Intention to Return
In marketing research, behavioral intentions have been viewed as indicators that provide insight into whether customers will remain with or defect from a service provider (Ziethaml et al. 1996). Studies of consumer loyalty have demonstrated its importance for agency success. Loyal customers are more likely to say positive things about the company to others (Boulding et al. 1993), express preference for the company over others (Parasuraman et al. 1988), or demonstrate a willingness to pay more for products or services (Newman and Werbel 1973, LaBarbera and Mazursky 1983, Rust and Zahorik 1993). Marketing research has also shown that behavioral intentions are strong predictors of actual behavior and that behavioral intentions are closely related to customer satisfaction and service quality (Ziethaml et al. 1996). Thus, it is necessary to investigate place-relevant variables that represent recreationists’ attitude toward place, such as place satisfaction and place attachment, to reveal the relationship between attitude and intention.
Table 1.—Means, standard deviation, and reliabilities of manifest variables

<table>
<thead>
<tr>
<th>Items</th>
<th>α</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience Use History</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In what year did you make your first visit?</td>
<td>.415</td>
<td>1991.85</td>
<td>11.99</td>
</tr>
<tr>
<td>How many visits to Santee Cooper Country have you made since your first visit?</td>
<td></td>
<td>11.40</td>
<td>8.83</td>
</tr>
<tr>
<td>Place Attachment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place Identity (eight items)</td>
<td>.90</td>
<td>3.29</td>
<td>.68</td>
</tr>
<tr>
<td>Place Dependence (four items)</td>
<td>.83</td>
<td>3.24</td>
<td>.85</td>
</tr>
<tr>
<td>Affective Attitude (three items)</td>
<td>.82</td>
<td>3.44</td>
<td>.85</td>
</tr>
<tr>
<td>Social Bonding (five items)</td>
<td>.79</td>
<td>3.63</td>
<td>.74</td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How satisfied are you with the fishing at the lake you fish most often in SCC?</td>
<td></td>
<td>3.69</td>
<td>.93</td>
</tr>
<tr>
<td>Intention to Return</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How likely is it that you will visit SCC within the next 12 months?</td>
<td></td>
<td>3.94</td>
<td>.81</td>
</tr>
<tr>
<td>Place Familiarity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please indicate how familiar you are with SCC.</td>
<td></td>
<td>4.93</td>
<td>1.52</td>
</tr>
<tr>
<td>Angling skill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please rate your level of fishing experience.</td>
<td></td>
<td>3.44</td>
<td>.82</td>
</tr>
</tbody>
</table>

3.0 METHODS

3.1 Sample and Study Context

Our data were collected from consumers inquiring about angling opportunities in SCC, South Carolina. Names and addresses were drawn from a database maintained by the Santee Cooper Counties Promotion Commission, a not-for-profit organization acting on behalf of a five-county region in South Carolina. These counties lie around the perimeter of Lakes Marion and Moultrie, popular fishing destinations that attract visitors from across the United States. Combined, the two lakes and diversion canal connecting them cover approximately 156,000 acres and provide 450 miles of shoreline. A survey instrument was sent to 2,750 randomly selected people from the database using a modified Dillman (2000) procedure. The sample contained 581 addresses that were no longer valid. The procedure yielded 430 completed surveys for a response rate of 20.0 percent. For this analysis, we selected only past visitors (n = 248) to determine their attachment to the place.

3.2 Measures

Experience use history was measured using two items: respondents’ year of first visit and the number of visits since (see Table 1). While the reliability of these two items was shown to be mediocre (α = .415), some authors have suggested that these items do not lend themselves to tests of internal consistency (Kyle et al. 2004). Consequently, we retained these items for further analyses. Place satisfaction was measured using a single indicator. Respondents were asked to indicate how satisfied they were with their experience at SCC. Response categories ranged from 1 = poor through 6 = perfect. Place attachment was measured using 20 items drawn from Kyle et al. (2004). Respondents were asked to indicate their level of agreement with a series of statements relating to SCC. Response categories were 1 = strongly disagree through 5 = strongly agree. As noted, these items measured four dimensions of attachment: place identity, place dependence, affective attachment, and social bonding. All dimensions displayed good internal consistency (i.e., all α > .75). Items loading onto each dimension were parcelled to create a single indicator for further analyses (Williams and O’Boyle 2008). Intention to return was also measured using a single indicator. Respondents were asked to indicate the likelihood of their return on a 5-point scale ranging from 1 = very likely through 5 = no chance. Last, our two moderating variables were also measured using single indicators. For place familiarity, respondents were asked...
to indicate how familiar they were with SCC. Response categories ranged from 1 = not at all familiar through 9 = extremely familiar. For respondents’ fishing experience, they were asked to indicate their experience along a 5-point scale ranging from 1 = novice through 5 = expert.

4.0 ANALYSES AND FINDINGS

4.1 Descriptive Analyses

The means and standard deviations are reported in Table 1. On average, respondents indicated first visiting SCC in 1991. They expressed modest levels for attachment with SCC with averages ranging between 3.24 for place dependence and 3.63 for social bonding. Respondents also expressed satisfaction with their visit ($M = 3.69$) and a propensity to return ($M = 3.94$).

4.2 Model Testing

We first tested the hypothesized model (Fig. 1) using the pooled sample with the manifest-variable regression in LISREL 8.70 (Jöreskog and Sörbom 2004). Selected goodness-of-fit indices were used in reporting the results of our model testing. These included Steiger and Lind’s (1980) Root Mean Square Error of Approximation (RMSEA), Bentler and Bonnett’s (1980) Non-Normed Fit Index (NNFI), and Bentler’s Comparative Fit Index (CFI). The results of path model testing are displayed in Table 2. Our hypothesized model (i.e., baseline model) showed a good fit ($\chi^2 = 9.039; \text{df} = 5, \text{RMSEA} = .087, \text{NNFI} = .961, \text{CFI} = .991$; High familiarity: $\chi^2 = 26.326; \text{df} = 5, \text{RMSEA} = .099, \text{NNFI} = .542, \text{CFI} = .891$) but were mixed for the skill-level groups. The low-skill group showed a relatively poor fit ($\chi^2 = 200.908; \text{df} = 5, \text{RMSEA} = .285, \text{NNFI} = .542, \text{CFI} = .891$), whereas the high-skill group showed a good fit ($\chi^2 = 19.723; \text{df} = 5, \text{RMSEA} = .082, \text{NNFI} = .973, \text{CFI} = .994$).

To examine the moderating effect of familiarity and skill on the relationships tested in our hypothesized model, invariance testing was used to examine variation across the groups (Table 3). This procedure tested whether the beta weights were significantly different among these groups. Beta coefficients were first constrained to be invariant across the two groups (i.e., high/low familiarity and then high/low skill) to analyze whether the imposition of the constraint significantly affected the model fit. We found no significant difference between less familiar and more familiar groups in terms of their regression coefficients ($\Delta \chi^2 = 17.097; \Delta \text{df} = 13, \text{RMSEA} = .029, \text{NNFI} = .993, \text{CFI} = .997$). For the comparison of low-skill and high-skill visitors to SCC, we found that imposing the invariance constraint significantly influenced model fit ($\Delta \chi^2 = 31.263; \Delta \text{df} = 13, \text{RMSEA} = .0867, \text{NNFI} = .947, \text{CFI} = .979$). Therefore, there was a significant difference between low-skill and high-skill groups in terms of the regression coefficients. Specifically, the following relationships are significantly different.
across the two skill groups: satisfaction-intention, social bonding-intention, and affective attachment-intention.

4.3 Summary of Effects

Our findings are summarized in Table 4. Overall, the valence of all the relationships was consistent with our hypotheses. With regard to the effect of EUH on the four dimensions of place attachment, EUH accounted for less than 2 percent of the variance in each dimension of place attachment, except for the affective attachment. With regard to the relationship between place satisfaction and the dimensions of place attachment, place satisfaction was a much stronger predictor of place attachment than was EUH. With regard to the variance for the two skill groups, the $R^2$ values were somewhat higher for the high-skill group compared to the low-skill group for all of the dependent variables in the hypothesized relationships.

Specifically, the following relationships were observed:

a) Place identity was positively influenced by EUH ($\beta = .131, t-value = 3.136, p < .001$) and place satisfaction ($\beta = .479, t-value = 11.442, p < .001$) and accounted for 17.8 percent of the variance for the low-skill group and 26.5 percent of the variance for the high-skill group. Given that highly skilled recreationists are more likely to form an attachment to preferred settings, it is reasonable to assume that their experience and satisfaction positively affect their identification with the setting.

b) Place dependence was influenced by EUH ($\beta = .124, t-value = 3.022, p < .01$) and place satisfaction ($\beta = .514, t-value = 12.551, p < .001$) and accounted for 22.9 percent and 25.7 percent of the variance in the low-skill and high-skill groups, respectively. This finding indicates that respondents’ functional attachment to SCC is driven by their experience and satisfaction with the setting. The strength of these effects did not vary across the groups.

c) Affective attachment was influenced by EUH ($\beta = .276, t-value = 6.840, p < .001$) and place satisfaction ($\beta = .476, t-value = 11.800, p < .001$) and accounted for 20.4 percent of the variance for the low-skill group and 31.3 percent of the variance for the high-skill group. This finding indicates that recreationists’ past experience and satisfaction with the setting is predictive of their emotional attachment to SCC for both groups.
d) Social bonding was positively influenced by EUH ($\beta = .116, t-$value = 2.690, p < .01$) and place satisfaction ($\beta = .427, t-$value = 9.860, p < .001$). It accounted for 24.3 percent of the variance for the low-skilled recreationists’ and 15 percent the variance for the high-skill group. This result suggests that less skilled anglers care more about their social ties to SCC than do highly skilled anglers.

e) Recreationists’ intention to return to SCC was positively influenced by their affective attachment ($\beta = .231, t-$value = 2.969, p < .01$) and place satisfaction ($\beta = .384, t-$value = 8.639, p < .001$) and accounted for 22.4 percent and 31.1 percent of the variance for the low-skill and high-skill groups, respectively. Thus, respondents’ emotional attachment and overall satisfaction with SCC are compelling drivers of their intention to return to the area.

5.0 DISCUSSION

Using data collected from anglers who had previously visited SCC, we showed that both EUH and place satisfaction significantly and positively impacted visitors’ attachment to SCC and their intention to return. Of place attachment’s antecedent conditions, we found that place satisfaction was a much stronger driver of respondents’ attachment to SCC in addition to their intention to return. Further, self-reported angling skill influenced the strength of these relationships.

In addition to affective attachment, our findings indicate that all dimensions of place attachment (place identity, place dependence, social bonding, and affective attachment) were positively influenced by EUH, albeit weakly. However, EUH had only an indirect effect on intention to return to SCC mediated through the dimensions of place attachment. With regard to the measurement of the EUH construct, concern has been expressed about “how the individual measures are combined to form the index” (Hammitt et al. 2004, p.372). Since EUH is composed of multi-item measures, it should be aggregated from past participation variables such as duration and frequency. While this study standardized the past experience indicators to formulate a parcelled indicator of EUH, it is still necessary to consider appropriate combinations of various past participation variables when examining the EUH construct.

Although place satisfaction plays a significant role in developing recreationists’ attachment to the setting, previous place literature appears to have overlooked its importance. The findings of this study indicate that place satisfaction had the strongest influence on place...
attachment and visitors’ intention to return to the SCC.

Community sociology (see Theodori, Stedman and colleagues) has provided several illustrations of place satisfaction’s influence on place attachment (Hammitt et al. 2004). However, as noted by Mesch and Manor (1998), people can be satisfied with a place but not necessarily attached to the landscape. Further, Freid (1984) noted that satisfaction is a relatively shallow construct compared to attachment in terms of people’s psychological responses to the environment. Place satisfaction involves a uniform evaluation of the setting that relies on its value in light of certain outcomes. Place attachment, however, is much more nebulous. While it may or may not rely on a subjective evaluation that is reflected in the concept of place satisfaction, it also involves the interplay among emotion (positive and negative), social interaction, and the attributes that characterize the setting. Thus, this study supports previous work suggesting the importance of place satisfaction as a driver of place attachment and visitors’ intention to return to recreation areas.

With regard to the moderating effect of place familiarity and perceived skill, the findings indicate that recreationists’ skill level significantly altered the relationships among EUH, place satisfaction, place attachment, and intention to return. Low-skill group respondents emphasized social bonding ties to SCC. For this group, the basis of their attachment to place lay in their social connections to the area. In contrast, for the high-skill group, respondents’ affective attachment was the strongest predictor of their intention to return. These recreationists are more place-focused because the setting’s attributes have direct bearing on the quality of their angling experience.

6.0 CITATIONS


The content of this paper reflects the views of the authors(s), who are responsible for the facts and accuracy of the information presented herein.