

**THE DEVELOPMENT AND IMPLEMENTATION OF A STRATEGIC
TOURISM MARKETING PLAN FOR FISHING AND BOATING ON SOUTH
CAROLINA'S SANTEE COOPER LAKES**

Project Survey Report
for

Santee Cooper Counties Promotion Commission (Santee Cooper Country)
and
Recreational Boating and Fishing Foundation (RBFF)

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List of Abbreviations and Terms

ASMFC—Atlantic States Marine Fisheries Commission

BASS—Bass Anglers Sportsman Society

Commission—Santee Cooper Promotion Commission

FW—Freshwater

NAFC—North American Fishing Club

NMFS—National Marine Fisheries Service

PRTM—Department of Parks, Recreation and Tourism Management, Clemson University

RBFF—Recreation Boating and Fishing Foundation

SCC—Santee Cooper Country (a.k.a. Santee Cooper Promotion Commission)

SCDNR—South Carolina Department of Natural Resources

Executive Summary

The Santee Cooper Counties Promotion Commission is a regional not-for-profit tourism agency created in 1968 to institute and operate programs to improve, enlarge, increase and otherwise enhance recreation and development in the South Carolina counties of Berkeley, Calhoun, Clarendon, Orangeburg and Sumter. These counties surround the Santee Cooper lake system—Lake Marion and Lake Moultrie, located in the southeast portion of South Carolina. The Commission, also referred to as “Santee Cooper Country,” provides information and inquiry fulfillment services to potential tourists as well as joint marketing and advertising on behalf of tourism service providers.

The major tourism in the area focuses on freshwater recreational angling and golf. The aquatic system currently supports a variety of freshwater recreational fish species—striped bass, largemouth bass, catfish, crappie, bluegill, and bream (sunfish), attractive to a range of recreational anglers depending on the season, accessibility of target species, fishing experience preferences and boat ownership. Despite the area's reputation as a fishing destination, regional license sales had been declining prior to 2004. Local resorts, guide services, and other angler services also complained of a continuous decline in tourism during recent years, and this trend produced low morale among regional service providers. Although there is not sufficient long-term expenditure data, the Santee Cooper Commission also noticed a significant decline in inquiries during 1998-2003. This decline coincides with the most recent multiyear (1998-2003) South Carolina drought that resulted in a significant decline of lake levels.

In addition to the recent drought, the Santee Cooper regional recreational angling economy has been sensitive to other factors such as a distinctive change in stock composition resulting from catfish stocking and changes in submerged aquatic vegetation. These changes affect availability of certain target species and thus whether new and previous anglers are attracted to the area.

The project reported here was conducted in 2004 to identify existing and potential recreational angling target groups as a means to advise Santee Cooper region marketing efforts, using promotion materials created by the Recreational, Boating and Fishing Foundation.

Project Goals & Objectives

Consistent with the Santee Cooper Commission's mission, this project was designed with the following goals in mind:

1. Improve the region's ability to attract repeat and new angling tourists and their families.
2. Contribute to strengthening the long term resilience of the Santee Cooper regional recreational fishing economy by improving the efficacy and efficiency of marketing materials.

3. Provide information useful in training local fishing guides and other associated service providers.
4. Inform marketing strategies focused on targeting new customers who fit profiles of identified tourist segments.

The specific objectives for achieving these goals included:

1. Conduct a marketing research survey to identify and define recreational angler segments exist among visitors to the Santee Cooper area.
2. Provide information necessary for a specialized recreational fishing and boating fulfillment piece to be distributed by Santee Cooper Country.
3. Develop recommendations for guides and other recreational angling service providers.
4. Inform the recreational fishing industry and resource managers about results of research on recreational angling related tourism in the region through report dissemination.

This report summarizes results from the marketing research survey performed in 2004 by Clemson University, Recreation, Travel and Tourism Institute.

Approach

The research objective was to identify characteristics of the segments of boating and fishing visitors to the Santee Cooper lakes region. This was accomplished through two tasks: 1) A review and secondary analysis of existing data on Santee Cooper anglers (South Carolina Department of Natural Resources and the National Survey of Fishing, Hunting, and Wildlife Recreation) and 2) a market segmentation research survey of inquirers to Santee Cooper Country.

The project involved a mail survey of inquirers listed in the Santee Cooper Commission database from over the past five years (1997-2003). The survey, administered by Clemson University, focused on South Carolina residents that travel more than 50 miles to the Santee Cooper region and out-of-state anglers. The survey was designed to produce angler profiles based on demographic and fishing preferences of these tourists—specifically provision of information important to the identification of target market segments. The survey included questions regarding previous visitation to Santee Cooper Country area; fishing activity, preferences, and estimated expenditures during the most recent trip; attitudes toward boating, fishing, and the Santee Cooper area; general angling preferences; social/psychological motivations; level of involvement; and demographics.

The mail survey (see Appendix A) was administered in 2004 to a stratified random sample of 2,750 names from the Santee Cooper Tourism Commission's inquiry database (only those who inquired about fishing). The procedure resulted in 430 usable questionnaires (response rate of 20.42 percent). The majority of respondents are male (93 percent), white (96 percent), and have more than a high school education (59 percent).

Over half (55 percent) are employed full-time or part-time, and the remainder are primarily retired (40 percent).

Data from the completed surveys were analyzed to develop detailed profiles of each market segment and compared to selected state recreational angling data (e.g., SCDNR Creel Survey, National Survey data on South Carolina). Data analysis included comparison of visitors and non-visitors, with a focus on people who fished while visiting. The survey data was also used to segment potential visitors to the Santee Cooper region into viable target markets relative to respondents' attachment to the Santee Cooper region and fish consumption motives.

Summary of Results & Recommendations

The results demonstrate that the relatively low satisfaction and indifference of first time visitors needs to be addressed. This section summarizes key findings and recommendations, including marketing recommendations derived from information on visitor characteristics, a comparison of visitors with non-visitors, and results of segmentation analysis with regard to place attachment and consumptive orientation.

Santee Cooper Country Visitors

A total of 248 survey respondents (59.0%) indicated that they have visited Santee Cooper Country. Nearly 84.0% of visitors to Santee Cooper Country did not reside in South Carolina. One-third of all visitors were from states adjacent to South Carolina, with the highest portion of visitors coming from North Carolina (23% of all visitors). This does not imply there were more visitors from North Carolina than from South Carolina at Santee Cooper. The survey sample was drawn from inquirers and South Carolina residents are less likely to request information from Santee Cooper Country because they are likely more familiar with the region.

The majority of visitors visit Santee Cooper Country March through July. Visitors to Santee Cooper stayed an average of five days and were in a group of four people consisting of family and friends.

The most popular sources of information about Santee Cooper were word-of-mouth, past experience, brochures, the Internet, and magazines. While most respondents included fishing in their trip planning, a few did not.

People who fish are also willing to engage in other activities at Santee Cooper. In addition to fishing and boating, visitors to Santee Cooper Country also participated most frequently in watching wildlife, pleasure driving, shopping for gifts, swimming and sunbathing and visiting historical sites.

One out of three Santee Cooper Country visitors used a fishing guide or charter on their most recent trip to the region and the overall rating of the guide service was very good.

Ratings of lake attributes were positive; however, there were some low ranked attributes, including 1) other activities taking place on the lakes, 2) number of fish in the lake, 3) restrooms/toilets, and 4) too few rangers/management staff.

On an overall satisfaction scale of 1=poor, 2=fair, 3=good, 4=very good, 5=excellent and 6=perfect, visitors rated the Santee Cooper Country region an average of 3.6. Also, the average visitor is likely (but not very likely) to return to the region in 12 months.

Respondents who fished during their most recent trip were asked to rank their familiarity with and attachment to the Santee Cooper region on a scale of 1 (Not at all) to 9 (Extremely). The average (mean) was slightly below the neutral point on the scale for both familiarity (4.9) and attachment (4.5).

Recommendations:

- Out-of-state marketing should target North Carolina followed by Pennsylvania, Virginia, Georgia, Ohio and West Virginia.
- Target the shoulder seasons August, September and October to extend the season.
- Market Santee Cooper Country as a family friendly fishing vacation destination.
- Include recreational, shopping and historical opportunities for non-anglers in marketing materials.
- Consider or continue marketing alternative activities to fishermen while at the same time marketing fishing opportunities to other recreationists (such as golfers).
- Provide high levels of customer service to increase positive word-of-mouth advertising.
- Entice first time visitors or repeat visitors to fishing activities once they are at the destination through services and information from area guides and marinas (e.g., providing fishing gear and boat rentals or placing discounted guide trip coupons in information packets).
- Highlight the positive reputation of guides in the region in marketing (e.g., include customer reviews in guide-related websites).
- Address low-ranked lake attributes to maximize word-of-mouth.
- Develop a “relationship” with visitors to ensure their return to the region (e.g., develop a detailed data base and corresponding promotional email and mailing campaign).
- Improve the quality of Santee Cooper Country information to help the customer with their lack of familiarity with the region.

Visitors vs. Non-visitors

The survey sample included 172 (41 percent) non-visitors. Comparison of visitors and non-visitors information can be useful for informing marketing targeted at attracting non-visitors and retaining and increasing visitors.

Although both visitors and non-visitors are freshwater fishermen, visitors are more likely to go saltwater fishing than non-visitors. Also, non-visitors fish in freshwater during the summer season for a significantly higher number of days than visitors. Therefore, inquirers who focus on freshwater fishing may not be selecting Santee Cooper for their freshwater fishing trip.

Over one-half of visitors (50.9%) and non-visitors (55.9%) subscribe to fishing magazines. However, non-visitors subscribe to more magazines. *BASS/Bassmasters* and *IN-Fisherman* were the two most popular magazines for both groups. Non-visitors also subscribed to *North American Fishing Club* and *Bassin'* magazines at a higher proportion than visitors.

Non-visitors who fish in tournaments do so at a much higher rate than visitors. Visitors were more likely than non-visitors to own a boat and to fish from shore and a boat.

The top motives for fishing among all respondents are relaxation, getting away from the regular routine, and to be outdoors. Visitors are more motivated by the anticipation of the catch than non-visitors. However, visitors were slightly more interested than non-visitors in keeping their catch. Testing one's equipment is less important to visitors than it is to non-visitors.

While the most preferred type of fish to catch was bass for all respondents, there was a significant relationship between whether someone visited and the type of fish they prefer. In particular, non-visitors were more likely than visitors to prefer bass (striped, largemouth) and visitors are more likely than non-visitors to prefer catfish.

There was no significant difference between visitors and non-visitors with regard to gender, age, race, and education level. Most visitors are white. Average age of visitors is 53.9 and for non-visitors was 54.1. Over one-half of visitors and non-visitors have an average household income above \$50,000. Regarding the number of weeks of vacation taken in 2003, there is no significant difference between visitors (n=214; mean = 6.2 weeks) and non-visitors (n=140; mean =8.0 weeks).

For non-visitors, the mean age for those who prefer "catfish" is significantly lower than for those who prefer "other" fish. Otherwise, there is no significant difference in the mean age of respondents between fish preference groups within the visitor or non-visitor segments. There is also no significant difference between visitors and non-visitors with respect to age.

Recommendations:

- Freshwater fishing marketing media should target both freshwater and saltwater anglers.
- Focus on increasing the awareness of Santee Cooper Country as a summer freshwater fishing destination.

- Hire or attract a writer to do a series of articles on the region and have them placed in these in the top magazines (e.g., *Bassmasters*) along with advertising that reflects the Santee Cooper region as described by respondents in this study.
- Develop additional tournament opportunities to attract the non-visitors to the region, but consider timing of tournaments to prevent alienation of current customers.
- Provide information about boat rental and guide service opportunities, as well as places to fish from shore.
- Focus marketing more on the combined experience of catching fish and spending time on the water—i.e., the message and corresponding images must strike the proper balance between the “experience”, “the catch” and “the challenge.”
- Communicate opportunities to catch both catfish and bass to maintain and enhance the current visitor market. To attract non-visitors, focus marketing on bass or on persuading bass fishermen to develop their interest in catfish.
- Target both younger (recruiting visitors) and older (retaining visitors) age groups relative to fishing preferences and needs. The RBF “*Take me fishing*” marketing campaign, which encourages older generations to introduce younger generations to recreational fishing and boating, is an appropriate approach for the Santee Cooper region.

Market Segmentation

Market segmentation analysis provides a valuable means for identifying target markets. This section summarizes results of analysis used to define segments relative to respondent's attachment to the Santee Cooper Country region and their orientation regarding the consumption of fish.

- *Attachment*

Respondents were grouped into three homogenous segments based on their scores on four dimensions of attachment to the Santee Cooper Country (*place identity, place dependence, affective attachment* and *social bonding*). The three segment solution that best fits the decision criteria resulted in the following segments *Moderates, Indifferents, and Loyalists*. The attachment scores for these segments reflected a linear pattern of low to high. *Indifferents* scored lowest on all dimensions of attachment, followed by *Moderates* scoring slightly above “neutral,” and then *Loyalists* who scored highest on all dimensions of attachment. *Moderates* were the largest segment consisting of just under half of the sample (48.8%), followed by *Loyalists* (34.3%), and then *Indifferents* (17.1%).

Loyalists were the most frequent visitors (28% had more than 20 visits and another 17% had between 11 and 20 visits since their first visit) followed by *Moderates* (40% had 1-3 visits) and then *Indifferents* (49% were making their first visit). The large size of the *Moderates* segment suggests converting *Moderates* to *Loyalists* will be challenging.

Loyalists were slightly more inclined to indicate visiting on their own (11.76%) or visiting in a large group of more than six people (14.71%). The segments do not

substantively differ in terms of their choice of angling locations, angling duration or seasonal use of the lakes and diversion canal. For the three segments, *Loyalists* rated the overall visitor experience highest, followed by *Moderates* and then *Indifferents*. *Loyalists* are the most likely to return to the Santee Cooper Country followed by *Moderates* and then *Indifferents*.

Of the 19 items exploring various experience elements, variations were observed on 14 items. Given that almost half of the *Indifferents* were answering the survey after their first visit, the relatively lower rating by *Indifferents* may be an important indicator that the first few visits are not resulting in a satisfactory rating for the Santee Cooper experience.

Respondents evaluated the effect of various service attributes (e.g., lake and ramp access, impact of other users, lake area and conditions, management actions, and services) on their experience for their last visit to the Santee Cooper Country. *Loyalists* were most inclined to indicate that the various service attributes positively impacted their experience, whereas *Indifferents* tended to be more critical. Also, *Indifferents* rated a number of lake attributes significantly more negatively than *Loyalists*. Given that *Indifferents* had the lowest visit frequency (49% making first visit; 20% 1-3 visits), their ratings represent some of the first impressions that visitors have of the region. Findings reveal the challenge that Santee Cooper Country has in reaching new markets such as the *Indifferents* who have fished at many other places and are comparing the attributes of Santee Cooper Country with other locations.

Recommendations:

- Target loyal customers through a combination of relationship building and excellent customer service.
 - Promote accommodations that can handle larger groups to reach the *Loyalists*.
 - Ensure that visitors (especially first time visitors) have a high quality experience. This can be addressed through improved service quality and employee training.
 - Develop a tourism communication strategy for visitors once they arrive in addition to the marketing campaign to get them to visit Santee Cooper Country.
 - Visit other well known freshwater fishing destinations to compare the attributes of that region with Santee Cooper Country.
 - Hold a series of focus groups with first time visitors to Santee Cooper Country to identify how the area could be improved.
 - Maintain the attributes that *Loyalists* ranked high and enhance the attributes that received low ratings, particularly by *Indifferents*.
- *Consumptive Orientation*
Santee Cooper respondents were also segmented based on responses to survey items associated with the four consumptive orientation dimensions—*Catch Big Fish, No Catch, Catch Many Fish* and *Keep Catch*. The results demonstrate the existence of

four angler groups among Santee Cooper respondents—*Lots of Fish* (31.4%), *Big Fish* (19.9%), *Fun Time* (28.2%), and *Keepers* (20.6%). These groups were then evaluated to determine if differences existed for motivation, social-psychological involvement, behavioral involvement, and place attachment scales. Analyses indicated some significant differences exist among these groups for all of these scales. The results suggest there are target market segments associated with different aspects of the Santee Cooper angling experience. For example, there is a segment of visitors (*Fun Time*) that enjoys aspects of the Santee Cooper fishing and recreational experience beyond actually catching fish. However, there was little variation across segments for the demographic indicators measured by the survey.

Recommendations:

- Incorporate the appropriate motivations for the respective market segments into the images and text of the marketing media.
- Communicate the appropriate level of involvement for the target market. For example, the message for the *Lots of Fish* segment should emphasize the importance of fishing to the individual and how catching lots of fish can be accomplished if they visit Santee Cooper Country.
- Focus marketing on place attributes and experiences relative to different types of consumptive orientation.

Conclusions

The study findings have utility for both resource managers and those working to market angling destinations. In the context of the Santee Cooper lakes system, the SCDNR manages the fishery to cater to a broad range of angling interests. This is evidenced in the variety of species available and their efforts to maintain a suitable habitat (e.g., fallen tress, live cypress trees). These efforts have ensured that the Santee Cooper lakes system will appeal to a diverse group of anglers; from those who hope to catch a “trophy” fish to those who seek other non-angling experience elements. The variations observed with regard to anglers’ motivation, social-psychological involvement, and place attachment, also suggest that anglers seek different things from the activity. The benefits offered through angling participation, however, are not uniform. For some, these benefits support a lifelong interest, whereas for others angling is simply a passive interest. Past research has shown that the intensity and type of social-psychological involvement often shapes how recreationists’ feel about the resource and their preferences related to the management of the resource.

With regard to these findings’ implications for destination marketing, we suggest that anglers’ consumptive orientation and other motives can also provide a platform for developing media to market angling destinations to prospective tourists. The Santee Cooper lake system is an exemplar of the extent to which anglers will travel to enjoy world class fishing. Within our sample, less than 14 percent (13.7%) of anglers were from South Carolina. Opportunities to catch trophy fish, share time with family, and

enjoy nature are all tangible benefits that will appeal to anglers. As destinations compete for angling tourists, communities dependent on angling-based industries will need to more aggressively promote their destinations. The attributes reflected in consumptive orientation and recreation experience preference scales reflect identifiable benefits which appeal to a variety of market segments.

1. Purpose of Project

The Santee Cooper Counties Promotion Commission is a regional not-for-profit tourism agency created in 1968 to institute and operate programs to improve, enlarge, increase and otherwise enhance recreation and development in the South Carolina counties of Berkeley, Calhoun, Clarendon, Orangeburg and Sumter. These counties surround the Santee Cooper lake system—Lake Marion and Lake Moultrie, located in the southeast portion of South Carolina. The Commission, also referred to as “Santee Cooper Country,” provides information and inquiry fulfillment services to potential tourists as well as joint marketing and advertising on behalf of tourism service providers. The major tourism in the area focuses on freshwater recreational angling and golf. Decline in recreational anglers in the region is a concern.

This purpose of this portion of the project was to identify existing and potential recreational angling target groups as a means to advise marketing efforts for the Santee Cooper region using promotion materials created by the Recreational, Boating and Fishing Foundation.

1.1 Background on the Santee Cooper region

Santee Cooper Country in South Carolina refers to the five counties (i.e., Berkeley, Calhoun, Clarendon, Orangeburg, Sumter) surrounding the Santee Cooper lake system. This system consists of two lakes, Marion (110,600 acres) and Moultrie (60,400 acres). The two lakes are joined by the 6.5 mile Diversion Canal. These world-class fishing lakes were created from 1939-42 for a hydroelectric project by the Santee Cooper Public Service Authority, commonly known as "Santee Cooper" because of the two river systems the project connected (Figure 1). The lakes vary from shallow swamps and blackwater ponds to vast open water with a multitude of underwater structures. Lake Marion was not completely cleared, and as a result, there are thousands of stumps, standing dead tree trunks and live cypress trees, a condition which creates fish habitat but inhibits navigation). Lake Moultrie is more open and is 14 miles across at its widest point. These lakes do not ice over during the winter and there is no closed season for fishing season. Weather permitting, anglers can fish year round.

Since the early 1950's, South Carolina's Santee Cooper Lakes have had a national reputation for its sport fishery with anglers from throughout the United States visiting the region to fish for trophy striped bass. As a result, a prosperous tourism industry catering to fishermen developed in the communities near Lakes Moultrie and Marion. The system currently supports a variety of freshwater recreational fish species—striped bass, largemouth bass, catfish, crappie, bluegill, and bream (sunfish), attractive to a range of recreational anglers depending on the season, accessibility of target species, fishing experience preferences and boat ownership. The South Carolina Department of Natural Resources (SCDNR) District V manages the fisheries in Lakes Marion and Moultrie.

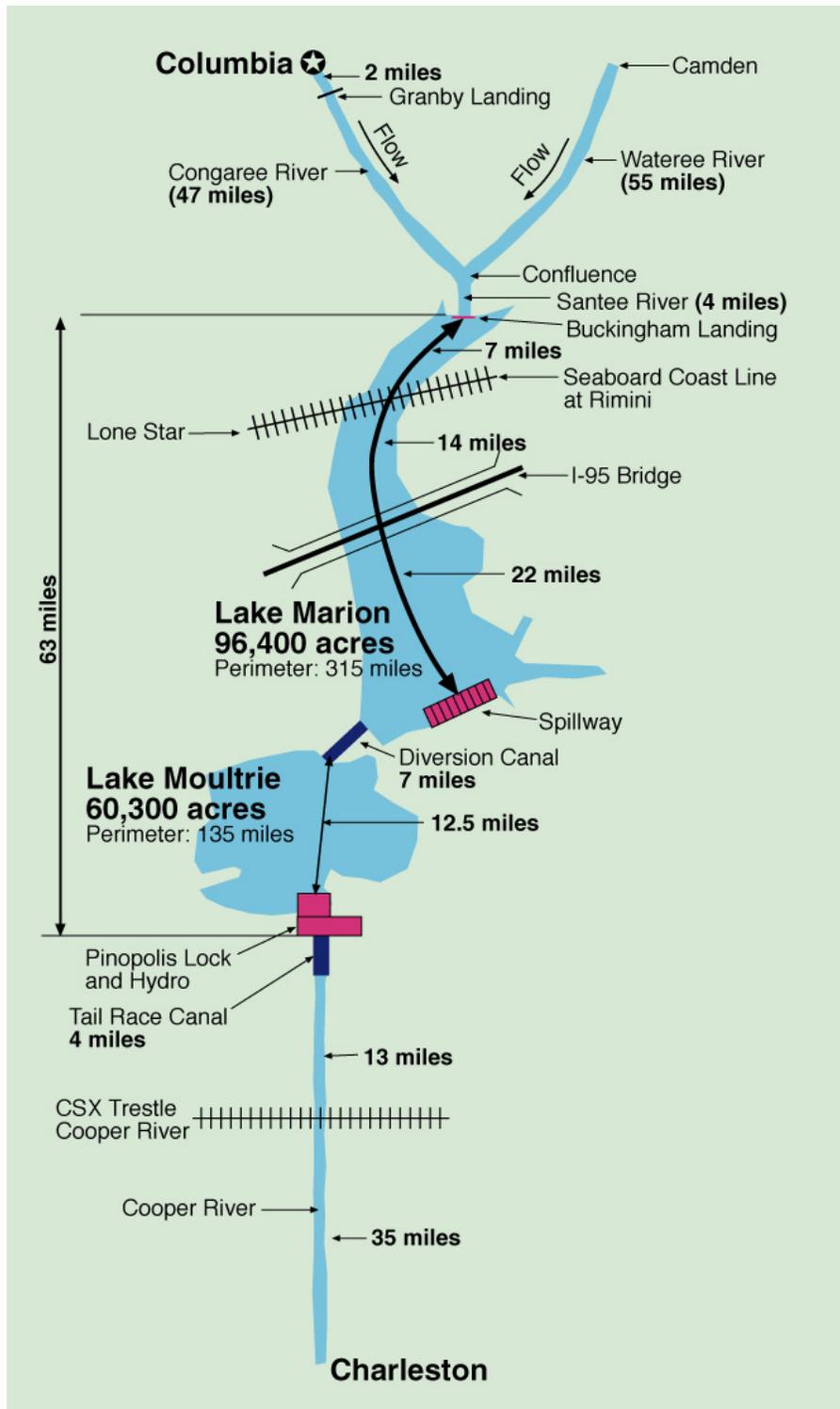


Figure 1. Santee Cooper Lake System [accessed: March 13, 2006; http://www.santeecooper.com/environment/recreation/images/lakemap_chartocolac_hannel.jpg]

The economic impact of freshwater angling in South Carolina has been significant. Southwick and Allen (2001) calculated the total economic effect of freshwater fishing in South Carolina as \$717 million in 2001. While 87.7% of this economic activity and 96% of freshwater fishing days in South Carolina were from residents, the five counties surrounding Lakes Marion and Moultrie have represented about 39% of all non-resident fishing license sales in South Carolina from 1997 to 2002. However, in 1977, the five counties represented by Santee Cooper Commission sold 57% of the non-resident fishing licenses in South Carolina (SCDNR personal communication). Thus, despite the area's reputation, license sales demonstrate a gradual decline in freshwater angling tourism to the Santee Cooper region.

Local resorts, guide services, and other angler services have also complained of a continuous decline in tourism during recent years, and this trend has produced low morale among regional service providers. Although there is not sufficient long-term expenditure data, the Santee Cooper Commission noticed a significant decline in inquiries during 1998-2003. This decline coincides with the most recent multiyear (1998-2003) South Carolina drought that resulted in a decline of lake levels from one to three feet per year (Kiuchi, 2002).

This perception of a local decline in angling is confirmed by national and state trends demonstrated by the U.S. Fish and Wildlife Service National Survey of Fishing, Hunting and Wildlife-Associated Recreation (National Survey) and by the 2002 SCDNR Creel study for Lakes Marion and Moultrie. Table 1 summarizes South Carolina angling days information from the 1985, 1996 and 2001 editions of the National Survey and the 2001 Economic Benefits of Freshwater Fishing in South Carolina report (Southwick, 2001). This table shows a general decline in total freshwater angling days in South Carolina as well as a decrease in the percentage of non-resident freshwater fishing angler days from 13% in 1985 to 4% in 2001.

Table 1. Number of freshwater (FW) angling days in South Carolina, in thousands.

Freshwater Angling Days in South Carolina	1985	1996	2001
Total days FW fishing in South Carolina	14770	11342	8713
Resident FW anglers fishing in SC	12816.4	10465	8347
% of total SC days	87	92	96
Non-resident FW anglers (estimate 2001)	1953.7	876	366
% of total SC days	13	8	4

The 2002 SCDNR creel study (White & Lamprecht, 2002) also reported a decline in fishing effort on Lakes Marion and Moultrie. For example, comparison of creel survey data for 1998 and 1999 (first year of recent drought) in Lake Marion demonstrates a 21 to 46% decrease in angler hours for six of the most targeted species and a 39 to 66% decrease in number harvested for the top seven most targeted species. In addition, the SCDNR study indicated that for the 1998-2001 reporting period, Lake Marion and Moultrie exhibited the lowest level of fishing

effort per acre observed on any of the state's mainstream reservoirs. The SCDNR study also reported that an unexplainable similar reduction in fishing effort also occurred on other major South Carolina lakes, Murray and Russell, in the late 1990s.

Ditton, Holland and Anderson (2002) identified South Carolina as a net importer of recreational angling tourists in 1996 (15% of angler days in South Carolina were non-resident while 9% of South Carolina resident angler days occurred out-of-state). The 2001 National Survey data for all angling indicated a reduction of these percentages to 9% and 5% respectively. However, the National Survey data for freshwater angling alone (see Table 1) also suggests that the import of freshwater fishing tourists to South Carolina has become even less significant, 8% in 1996 and 4% in 2001, relative to saltwater anglers.

In addition to the recent drought, the Santee Cooper regional recreational angling economy has been sensitive to other factors.

- **Fluctuation in Non-residents targeting striped bass:** The Lake Marion/Moultrie system is the first freshwater, landlocked, reproducing population of striped bass. After Lake Marion was impounded in 1942, stripers that came up the Cooper River, from the ocean to spawn, entered Lake Moultrie through the Pinopolis Lock, and became landlocked. The Santee Cooper lakes were an ideal freshwater habitat for what was a popular saltwater game fish. Striped bass have also been stocked annually in Lakes Marion and Moultrie since about 1984. Currently, the population consists of about 50% stocked fish and 50% wild-spawned fish. While the population has generally increased as a result of more stringent regulations (White, 2003), there is some indication of a decline in striped bass harvest in recent years (White & Lamprecht, 2002).

The 1984 Atlantic Striped Bass Conservation Act placed a moratorium on saltwater striped bass fishing in response to a severe decline on the Atlantic coast (USFWS 2003). During this time, Lakes Marion and Moultrie were likely attractive to displaced recreational striped bass fishermen. However, as a result of management regulations and the growing use of "catch and release" fishing, the saltwater striped bass stocks rebounded by the late 1990's (ASMFC, 2003; NMFS, 1998). The decline in non-resident freshwater fishing days in South Carolina may be related to this rebound in the saltwater striper fishery. For example, data from the National Survey indicate that the number of South Carolina angler days for white bass/striped bass and bass hybrids have declined since 1985 (1985: 3,307,900; 1996: 976,000; 2001:1,509,900). Furthermore, the most recent SCDNR creel report (White and Lamprecht, 2002) indicates striped bass comprised only 6% of targeted fishing effort during 1998 and 1999 on Lake Marion.

- **Distinctive change in stock composition—catfish:** SCDNR stocked blue and flathead catfish in the Lake Marion/Moultrie system one time in 1964 (White,

2003). These species established a vigorous population and now comprise a large fishery. The most recent SCDNR creel report (White and Lamprecht, 2002) notes a distinctive change in the harvest of catfish on Lake Marion, with the harvest number doubling and harvest weight increasing ten-fold since 1982. In addition, anglers targeted catfish more frequently than any other species in the Lake Marion and Moultrie system during that creel survey period. This fishery continues to hold potential for attracting anglers, particularly given promotion of catfish angling by the *In-Fisherman* magazine and TV show, and prevalence of trophy size catfish.

- **Changes in submerged aquatic vegetation:** The SCDNR stocked the lakes with Grass carp from 1989-1996 to control vegetation, primarily Hydrilla which was clogging boat ramps and thus impacting marinas. In conjunction with the 2001-2002 creel survey, the SCDNR partnered with the U.S. Army Corp of Engineers Environmental Laboratory to conduct a study of angler perceptions of aquatic plant coverage in Lake Moultrie (Henderson, Kirk, Lamprecht & Hayes, 2002). This study determined increased plant coverage would cause anglers to make more trips. SCDNR's recent plantings of non-invasive aquatic species will hopefully restore aquatic vegetation to levels attractive to anglers. Given these factors, potential for attracting latent and new anglers to the Lakes is encouraging.

Inquires and fishing effort began to increase with the increased precipitation and lake levels in 2004. Around that time SCDNR biologist Miller White predicted the striped bass and catfish catch would become more successful given a good striper spawn in 1998 and 2000 and decent spawning conditions for catfish during the drought (Rhodes 2003). However, there is a recognized need to help stabilize fluctuations in tourism and a desire to attract and retain previous and new recreational anglers to the region.

1.2 Project Partners

Santee Cooper Counties Promotion Commission: Under the leadership of Executive Director, Mary Shriner, the Commission budgeted \$10,000 for FY 2002/03 and obtaining the \$50,000 Recreation, Boating and Fishing Foundation (RBFF) grant, part of which was used to fund the marketing survey discussed in this report.

South Carolina Department of Natural Resources (SCDNR): Regional fisheries biologist Miller White has managed the Lake Marion/Moultrie region for several years and has a good relationship with the recreational fishing industry in the region. SCDNR cooperated with Clemson RTTI researchers by providing the most recent creel data for the Santee Cooper lakes system.

Santee Cooper Guide Association: The Santee Cooper Commission created this new association in part to address past decline in service provider morale and improve treatment of clients. At the start of the research project, the guide

association was developing a logo for use in advertising and working on online and printed materials to promote Association members to visitors. Results of the survey (discussed in this report) have been made available guide association representatives.

Recreation, Travel and Tourism Institute (RTTI), Clemson University

The RTTI is a research center within the Department of Parks, Recreation and Tourism Management (PRTM) at Clemson University. Since 1985, the RTTI has served as a focal point for coordinating research, extension, and teaching programs related to recreation and tourism at Clemson University and within the state of South Carolina. The purpose of the RTTI is to provide a recreation and tourism research and information base to assist in the long range planning and development of tourism in the state of South Carolina and to address the broader issues of recreation and tourism as they relate to the host communities, the state, the region, and the country. The following Clemson University researchers, associated with the RTTI, provided guidance and assistance with the project development and conducted the research survey discussed in this report:

- Dr. William Norman, Director RTTI and Associate Professor, Parks, Recreation and Tourism Management.
- Dr. Gerard Kyle, Assistant Professor, Parks, Recreation, and Tourism Management.
- Dr. Allan Marsinko, Professor, Department of Forestry and Natural Resources.
- Laura Jodice, Research Associate, RTTI, Department of Parks, Recreation and Tourism Management.

1.3 Project Goals and Objectives

According to Ditton et.al. (2002) non-resident anglers typically spend more money per day in the local area and represent a more specialized clientele or segment of the fishing tourist market. Ditton et.al. (2002) indicate that “from an economic demand standpoint, we would expect more anglers to choose destinations that are similar in quality, nearby, and at lower cost so they can make more trips than they would to more distant destinations (p.17).” Relative to this proposition, focusing on a regional recreational angling destination, such as Lakes Marion and Moultrie provides a suitable opportunity to explore for identification of target markets for a regional fishing destination. Specifically, this means performing market research necessary to understand why the five county Santee Cooper Country attracts certain types of anglers and determining where and why inquirers who do not visit, actually go.

Although the Commission's overall marketing strategy has always recognized recreational angling as a primary tourist attraction in the region, they have yet to create a specialized fishing fulfillment brochure for mailing to inquirers. This is partly because the Commission has not been able to conduct the research necessary to develop a marketing strategy targeted at specialized segments of non-resident and

in-state tourists who are recreational anglers and their families. This type of marketing could benefit the economic resilience of the area by building loyalty or “place attachment” to fishing in the region. In recognition of this long term need, the Santee Cooper Country applied for and received a \$50,000 grant from the Recreational, Boating and Fishing Foundation (RBFF) to develop a research based marketing strategy which incorporates the Foundations’ *Water Works Wonders* media materials, for this unique regional fishery.

Consistent with the Santee Cooper Commission’s mission, this project was designed with the following goals in mind:

1. Improve the region’s ability to attract repeat and new angling tourists and their families, specifically, non-resident anglers from out-of-state and resident anglers from outside the Santee Cooper region.
2. Contribute to strengthening the long term resilience of the Santee Cooper regional recreational fishing economy by improving the efficacy and efficiency of marketing materials.
3. Demonstrate how the Recreational Boating and Fishing Foundation *Water Works Wonders* campaign might be used effectively to attract a variety of anglers to a region.
4. Provide information useful in training local fishing guides and other associated service providers through outreach efforts delivered by Clemson University’s RTTI.
5. Develop marketing strategies focused on targeting new customers who fit profiles of identified tourist segments.

The specific objectives for achieving these goals were as follows:

1. Conduct survey research necessary to segment recreational anglers visiting the Santee Cooper area.
2. Provide information necessary for a specialized recreational fishing and boating fulfillment piece to be distributed by Santee Cooper Country.
3. Advise on development of a targeted promotional campaign which integrates the *Water Works Wonders* materials and is aimed at encouraging both repeat visitations among existing market segments in addition to attracting new visitors with similar characteristics.
4. Develop recommendations for guides and other recreational angling service providers.
5. Inform the recreational fishing industry and resource managers about results of research on recreational angling related tourism in the region through report dissemination.

This report summarizes results from the marketing research survey performed by Clemson University’s RTTI. A comprehensive preliminary report on the survey results was delivered to RBFF representative Monica Pelletier, Mary Shriner, Director of the Santee Cooper Promotion Commission, and the Santee Cooper Commission Board on May 5, 2005.

2. Approach

The survey, administered by Clemson University, focused on understanding why the five county Santee Cooper Country region attracts certain types of anglers and to determine where and why inquirers who do not visit, actually go. The research focused on South Carolina residents that travel more than 50 miles to the Santee Cooper region and out-of-state anglers. The project involved a mail survey of a random sample of inquirers listed in the Santee Cooper Commission database from over the past five years. The survey was designed to produce angler profiles based on demographic and fishing preferences of these tourists—specifically provision of information important to the identification of target market segments.

The research objective was to develop an understanding of the characteristics of the segments of boating and fishing visitors to the Santee Cooper lakes region. This was accomplished through two tasks: 1) A review and secondary analysis of existing data on Santee Cooper anglers and 2) a market segmentation research survey of inquirers to Santee Cooper Country.

2.1 Secondary Data Analysis & Review

A detailed examination of research conducted by the South Carolina Department of Natural Resources (SCDNR) on Santee Cooper anglers (i.e., creel census) was undertaken. Results of the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, conducted by the U.S. Fish and Wildlife Service, were reviewed. In addition, a literature review was conducted on recreational angling and place attachment research. A preliminary analysis of these data was conducted to facilitate the market segmentation research and survey design.

2.2 Market Segmentation Research/Survey Design

Based on the existing literature and discussions with project partners, a survey instrument (see Appendix A) was developed to provide detailed information about Santee Cooper inquirers. The survey included questions on

- Past visitation to the Santee Cooper Country (including number of visits, length of stay, group composition, trip planning)
- Fishing activity and preferences during most recent trip to the Santee Cooper region.
- Estimated trip expenditures for most recent trip to the Santee Cooper region.
- Attitudes toward boating, fishing, and the Santee Cooper area
- General recreational angling preferences (e.g., preferred fish species, seasons, and settings) and experience
- General social/psychological motivations for and level of involvement in recreational angling
- Demographic information (e.g., age, education, income, zip code).

The questionnaire was administered in 2004 as a mail survey using a modified Dillman (2000) approach and stratified random sample. Specifically, names and addresses were extracted from the Santee Cooper Tourism Commission's inquiry database dating from 1997 to 2003. The initial sample was exclusively people who had inquired about fishing ($N=5,500$). From this, 2,750 names and addresses were systematically selected (every 2nd name) to be sent a survey instrument. This procedure yielded 430 usable questionnaires. The database contained 581 addresses that were no longer valid and 10 incomplete surveys. Our final response rate for this sample was 20.42 percent. Information on survey response rate is summarized in Table 2.

Table 2. Survey response for 2004 Santee Cooper Country Visitor Survey

Item	#
a Total inquiry addresses 1997-2003 (fishing only)	5,550
b Pilot test addresses	100
c Remaining addresses (a-b)	5,450
d Addresses selected for final survey	2,717
e Doubles not mailed	30
f Total surveys mailed (d-e)	2,687
g Total non-deliverable	581
% non-deliverable	21.6
h Total delivered (f-g)	2106
i Total received	441
j Total refusals received	10
k Total double ID accidentally mailed & returned	1
l Total usable	430
m % response rate (l/h x 100)	20.42
n Number respondents visiting s-c	248
o % of inquirers who visited (n/l x100)	57.67
p Number of respondents who visited since the inquiry	195
q % conversion rate (p/l x100)	45.35

Data from the completed surveys were analyzed to develop detailed profiles of each market segment and compared to selected state recreational angling data (e.g., SCDNR Creel Survey, National Survey data on South Carolina). Data analysis included comparison of visitors and non-visitors, with a focus on people who fished while visiting. The survey data was also used to segment potential visitors to the Santee Cooper region into viable target markets relative to respondents' attachment to the Santee Cooper region and fish consumption motives.

3. Results

The results summarized here are intended to be used in development of marketing pieces. There are three levels of information presented—1) results for survey questions, 2) market segmentation analysis, and 3) comparison to other state level data.

3.1 Santee Cooper visitation

Of the 430 respondents, 10 did not indicate whether they visited Santee Cooper. Therefore, the sample size for analysis related to visitation involved a sample size of 420 respondents. Fifty-nine percent (n=248) of survey respondents had visited Santee Cooper country. The majority of these individuals were not residents of South Carolina (Table 3a). However, there was a slightly larger majority of non-residents among respondents (41%) who did not visit the area.

The higher percentage of non-residents in the survey population was expected given that the survey sample was drawn from inquirers who contacted Santee Cooper country—i.e., South Carolina residents are likely more familiar Santee Cooper and less likely to request information from the visitors center. Therefore, it is not appropriate to conclude that Santee Cooper area is primarily attracting non-residents.

Table 3a. Percentage of South Carolina residents and non-residents in survey respondent sample.

Visited Santee Cooper?	# of respondents	% of respondents	% SC Residents	% Not SC residents
Visitor	248	59.0%	16.1	83.9
Non-visitor	172	41.0%	9.3	90.7
Total	420	100.0%		

One-third of all visitors were from states adjacent to South Carolina (North Carolina, Georgia, Tennessee), with the highest portion of visitors coming from North Carolina (23% of all visitors) (Table 3a). Respondents included more visitors from North Carolina than from South Carolina. Again, this result makes sense given the survey sample was drawn from inquirers.

Table 3a. Percentage of visitors and non-visitor respondents by state of residency.

Respondent’s state of residency	% visitor (n=248)	% non-visitor (n=172)
NC	22.98	9.30
SC	16.13	9.30
PA	7.26	7.56
VA	7.26	4.07
GA	6.05	4.65
OH	5.65	8.14
WV	4.84	4.07
FL	3.63	2.33

Respondent’s state of residency	% visitor (n=248)	% non-visitor (n=172)
TN	3.63	1.74
NJ	3.23	4.65
NY	3.23	0.00
IN	2.42	7.56
KY	2.42	0.58
CT	2.02	0.00
IL	2.02	4.65
MD	1.61	2.91
MI	1.21	2.33
IA	0.81	2.33
MO	0.81	4.07
AL	0.40	1.16
LA	0.40	0.00
MA	0.40	1.74
NH	0.40	0.00
NV	0.40	0.00
VT	0.40	0.00
WI	0.40	0.58
AR	0.00	1.16
AZ	0.00	0.58
CA	0.00	1.16
CAN	0.00	1.16
CO	0.00	0.58
DE	0.00	0.58
ID	0.00	1.16
KS	0.00	1.74
ME	0.00	0.58
MN	0.00	0.58
MS	0.00	1.16
NE	0.00	1.16
OK	0.00	1.16
OR	0.00	1.16
TX	0.00	1.74
WY	0.00	0.58

3.2 Fishing behavior and preferences comparison for visitors and non-visitors

This section summarizes fishing related behavior and preferences for all survey respondents by comparing visitors and non-visitors to Santee Cooper. This information can be useful for marketing targeted at attracting non-visitors and retaining visitors.

Fishing days and trips

Respondents were asked how many days they spent fishing in salt and freshwater during the last 12 months (Table 4 & 5). All respondents were generally more focused on freshwater fishing which makes sense given these respondents were drawn from a pool of those inquiring about fishing in Santee Cooper area. However, survey results showed a significant difference (0.05) between visitors and non-visitors for saltwater fishing—visitors are likely to spend more days saltwater fishing than non-visitors. Results regarding fishing days by season indicate non-visitors fish in freshwater during the summer season for a significantly higher number of days than visitors. The results suggest that those focusing on freshwater fishing, particularly in summer, may not be selecting Santee Cooper for their freshwater fishing trip.

Table 4. Fishing days in salt and freshwater during the last 12 months for visitors and non-visitors to Santee Cooper Country.

Fishing type	Visitor		Non-Visitor	
	N	mean	N	mean
Freshwater	216	45.2	161	52.6
Saltwater*	151	9.9	100	5.2

* Significant difference between visitor and non-visitor at $p < 0.05$

Table 5. Fishing days in salt and freshwater by season during the last 12 months for visitors and non-visitors to Santee Cooper Country.

Number of days fished per season									
		Spring		Summer		Fall		Winter	
		N	Mean	N	Mean	N	Mean	N	Mean
Fresh	Visitor	181	17.0	174	15.8*	152	14.2	105	8.94
	Non-visitor	143	17.8	144	21.6*	134	15.5	95	8.3
Salt	Visitor	52	5.9	67	8.0	50	7.0	37	3.2
	Non-Visitor	54	3.3	55	4.7	39	3.8	36	3.1

*Significant difference between visitor and non-visitor for freshwater in summer at $p < 0.05$

There is no significant difference in the number of overnight fishing trips taken in the last 12 months between visitors (n=220; mean =4.8) and non-visitors (n=160; mean=4.8). Similarly, no significant difference in the number of overnight fishing trips planned for the next 12 months between visitors (n=201; mean =5.6) and non-visitors (n=142; mean=6.2).

Fishing experience & level of specialization

Respondents were asked to rate their level of fishing experience on a scale of 1= Novice through 5 = Expert. There was no significant difference between self-assessment ratings by visitors (n=229; mean = 3.5) and non-visitors (n=161; mean

= 3.4) for level of fishing experience. There was also no significant difference in the number of years fishing experience held by visitors (mean = 39.9 years) and non-visitors (mean = 39.4 years). Figure 4 shows the distribution of years of fishing experience for the survey respondents. These results demonstrate that in general, the survey population is composed primarily of fishermen with at least 10 years of fishing experience.

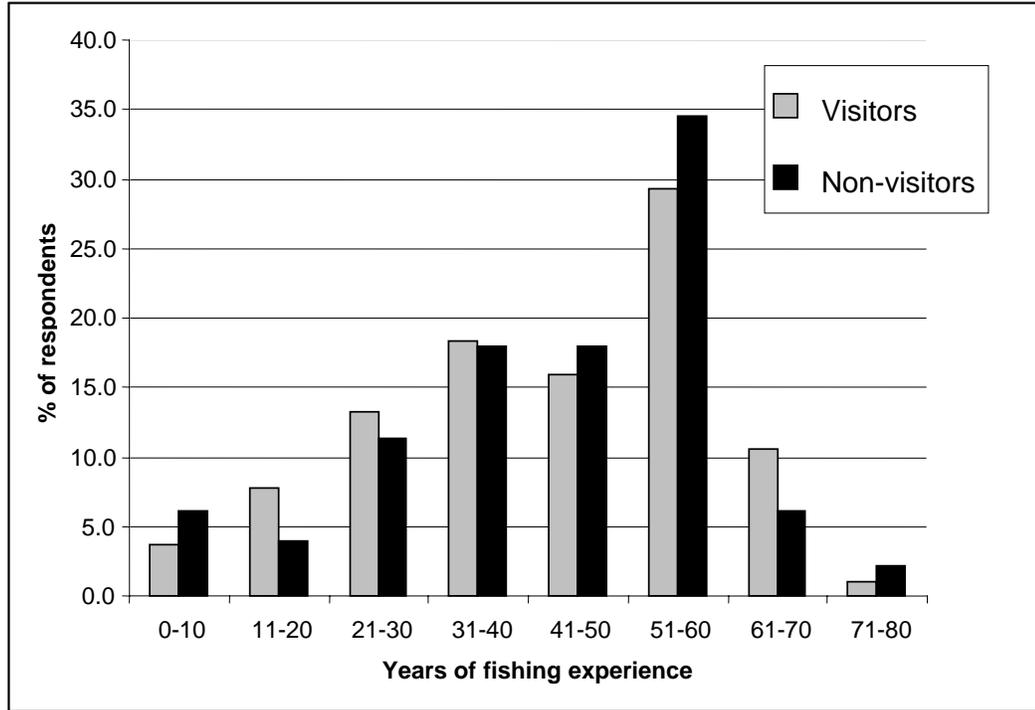


Figure 2. Years of fishing experience for visitors and non-visitors to Santee Cooper Country.

Over two-thirds of survey respondents do not belong to a fishing club (Table 6). There is no significant difference between visitors and non-visitors with regard to membership in fishing clubs; however, among those who do belong to fishing clubs, 34% were visitors and 45% were non-visitors. The most common club among visitors and non-visitors was B.A.S.S./Bassmasters (Table 7).

Table 6. Fishing club membership for visitors and non-visitors to Santee Cooper Country.

Fish Club Member?	% visitor (n=233)	% non-visitor (n=169)
Member	21.9	30.2
Not member	78.1	69.8

Table 7. Fishing club membership categories for visitors and non-visitors to Santee Cooper Country.

Fishing Club Type	% visitors (n=47)	% non-visitors (n=49)
B.A.S.S./Bassmasters	29.8	32.7
Other bass	4.3	12.2
North American Fishing Club (NAFC)	21.3	26.5
Other catfish	6.4	6.1
Other misc fish club	38.3	22.4

Less than half of visitors and non-visitors have ever fished in a tournament. There is no statistically significant difference between visitors and non-visitors with regard to whether they have ever fished in a tournament (Table 8).

Table 8. Tournament fishing experience for visitors and non-visitors to Santee Cooper Country

Tournament fishing?	% visitor (n=236)	% non-visitor (n=167)
Yes	45.8	37.1
No	54.2	62.9

For those who answered yes to having fished in a tournament and indicated number of tournaments in the last 12 months, non-visitors (n=59, mean =5.5 tournaments) who fished in tournaments did so at a statistically significant (0.05) higher rate than visitors (n=106; mean = 2.7 tournaments). It is important to note that there were a lower number of tournaments occurring at Santee Cooper lakes during the drought period (personal communication Mary Shriner).

Visitors are more likely than non-visitors [$\chi^2=(1,N=405)=3.99, p<0.05$] to own a fishing boat (Table 9). Visitors are also more likely than non-visitors [$\chi^2=(2, N=395)=7.34, p<0.05$] to normally fish from the shore and a boat, but less likely than non-visitors to fish exclusively from a boat or from shore (Table 10).

Table 9. Fishing boat ownership for visitors and non-visitors to Santee Cooper Country

Own fishing boat?*	% visitor (n=235)	% non-visitor (n=170)
Yes	76.6	67.6
No	23.4	32.4

*Significant difference between visitor and non-visitor at $p<0.05$

Table 10. Normal fishing habits for visitors and non-visitors to Santee Cooper Country.

Boat or shore?*	% Visitor (N =231)	%Non-visitor (N=164)
From a boat	10.0	12.2
From shore and boat	55.8	42.1
From shore	34.2	45.7

*Significant difference between visitor and non-visitor at $p < 0.05$

Magazine subscription

Fishing magazines are an appropriate media for targeted marketing about Santee Cooper. Responds were asked whether they subscribe to any fishing magazines. There was no significant difference between visitors and non-visitors with regard to fishing magazine subscription in general (Table 11). Respondents who do subscribe to fishing magazines were asked to list these magazines (Appendix B). Table 12 shows the top eight magazine subscriptions (based on first magazine listed) as well as other regional and national subscriptions. The percentage of non-visitors with subscriptions to the four of the five most popular magazines (i.e., BASS/Bassmasters, In-Fisherman, North American Fishing Club (NAFC), and Bassin' Magazine) ranges from almost double to more than double of that for visitors.

Table 11. Fishing magazine subscription for visitors and non-visitors to Santee Cooper Country.

Fish Magazine subscription?	% Visitor (n=230)	% non-visitor (n=161)
Yes	50.9	55.9
No	49.1	43.5

Table 12. Fishing magazine subscription type for visitors and non-visitors to Santee Cooper Country.

Fish Magazine?	% Visitor (N=131)	% Non-visitor (N=77)
<i>TOP EIGHT</i>		
BASS/Bassmasters	35.1	54.5
IN-Fisherman	27.5	48.1
North American Fishing Club	9.2	18.2
Field and Stream	9.9	9.1
Bassin' Magazine	2.3	15.6
Outdoor Life	6.9	6.5
SC Game & Fish	5.3	3.9
Crappie	5.3	2.6
<i>Other regional</i>		
Other Southeast	19.8	23.4

Fish Magazine?	% Visitor (N=131)	% Non-visitor (N=77)
Northeast	5.3	9.1
Midwest	3.1	16.9
West	0.0	2.6
Canada	0.0	1.3
<i>Other National</i>	24.4	28.6

Catch preferences & interests

In general, survey respondents are more interested in the experience of catching the fish than they are in keeping the fish (Table 13). Responses shown in Table 13 appear to indicate that catch is more important to visitors than non-visitors; however, there is no statistically significant difference between visitors and non-visitors on any of the catch related interests. Additional interpretation of this catch orientation data is provided in the section on market segmentation analysis in Section 3.6.

Table 13. General catch related interests for visitors and non-visitors to Santee Cooper Country.

Catch interests	Visitor		Non-visitor	
	N	Mean¹	N	Mean
I'm just as happy if I release the fish I catch	236	3.97	164	4.13
A fishing trip can be enjoyable even if no fish are caught	236	3.94	166	4.05
The more I fish I catch the happier I am	235	3.79	166	3.67
I would rather catch one or two big fish than five smaller fish	234	3.70	165	3.67
I would rather catch one or two big fish than ten smaller fish	234	3.50	166	3.37
The bigger the fish I catch, the better the fishing trip	235	3.45	165	3.38
A successful fishing trip is one in which many fish are caught	232	3.31	163	3.16
It doesn't matter to me what type of fish I catch	234	3.27	163	3.29
When I go fishing, I'm just as happy if I don't catch a fish	236	2.97	165	3.00
I must catch fish for the fishing trip to be enjoyable	233	2.62	165	2.47
I must keep the fish I catch for the trip to be successful	235	1.99	164	1.80

¹Scale: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Among all survey respondents, the most preferred fish catch is bass (Table 14). There was a significant relationship [$\chi^2=(3, N=374)=13.18, p<0.01$] between whether someone visited Santee Cooper and the type of fish they prefer. For example, non-

visitors were more likely than non-visitors to prefer bass (striped, largemouth), and visitors were more likely than non-visitors to prefer catfish.

Table 14. Comparison of preferred target fish for Santee Cooper region visitors and non-visitors.

TARGET FISH (Top choice)	% Visitors (N=224)	% Non-visitors (N=150)	% Total (374)	What this says...
CATFISH ¹	29.9	22.7	27.0	27% of all survey respondents prefer to catch catfish, however, of those that visited S-C, 29.9% preferred catfish.
BASS ²	40.6	54.0	46.0	46% of all survey respondents prefer to catch bass, however, of those that visited S-C, 40.6% preferred bass.
CRAPPIE	10.7	2.7	7.5	7.5% of all survey respondents prefer to catch crappie, however, of those that visited S-C, 10.7% preferred crappie.
OTHER ³	18.8	20.7	19.5	19.5% of all survey respondents prefer to catch other fish, however, of those that visited S-C, 18.8% preferred other.

¹ Catfish species include blue, channel and flathead catfish

² Bass species are primarily largemouth and striped.

³ Other species include—American Shad, Artic Charr, Blue Gill, Bluefish, Bream, Dolphin, Flounder, Grouper, Kings, Muskey, Northern Pike, Panfish, Pike, Red Fish, Rockfish, Salmon, Shovel Heads, Snook, Spots, Trout, Tuna, Walleye.

Actual catch was examined relative to preferred catch for visitors who fished (Table 15). There was a significant ($p < 0.05$) relationship between catch preference and what visitors caught. Nine out of ten visitors who preferred catfish, caught catfish when fishing in the Santee Cooper lakes.

Table 15. Comparison Santee Cooper visitors freshwater fish target species and actual catch during their most recent visit (n=202).

VISITOR'S PREFERRED FISH (Top choice)	% visitors w/ preference	% who caught Bass	% who caught Catfish	What this says...
CATFISH ¹	31.5	3.2	93.5	1/3 of visitors prefer catfish; 9 out of 10 visitors who target catfish caught catfish; catfish fishermen are unlikely to catch bass.
BASS ²	42.1	65.1	55.4	42% of people who visit prefer bass, 65% of these people catch bass, 55.4% of these bass fishermen catch catfish.
CRAPPIE	11.2	9.1	72.7	11.2% of people who visit prefer crappie, 3/4 of these people caught catfish.
OTHER ³	15.2	20	73.3	15.2% of people who visit prefer "other" species, 3/4 of these caught catfish; 20% caught bass.

¹ Catfish species include blue, channel and flathead catfish

² Bass species are primarily largemouth and striped.

³ Other species include—American Shad, Artic Charr, Blue Gill, Bluefish, Bream, Dolphin, Flounder, Grouper, Kings, Muskey, Northern Pike, Panfish, Pike, Red Fish, Rockfish, Salmon, Shovel Heads, Snook, Spots, Trout, Tuna, Walleye.

Involvement in fishing

In general, all respondents have a strong level of social-psychological involvement (identity, social others, centrality, belongingness) when it comes to fishing (Table 16). Fishing is more important to visitors than for non-visitors with regard to “how others see me” ($p < 0.05$). Additional interpretation of involvement data is provided in the section on market segmentation analysis in Section 3.7.

Table 16. General importance of involvement in fishing for Santee Cooper visitors and non-visitors.

INVOLVEMENT	Visitor		Non-visitor	
	N	Mean ¹	N	Mean
Fishing is one of the most enjoyable things I do	235	4.2	161	4.3
I enjoy discussing fishing with my friends	235	4.0	161	4.1
Fishing is very important to me	234	4.0	160	4.0
Fishing is one of the most satisfying things I do	234	3.9	161	4.0
Participating in fishing provides me with opportunity to be friends	235	3.9	161	3.8
When I'm fishing, I can really be myself	233	3.8	162	3.7
When I participate in fishing, I can really be myself	230	3.7	160	3.7
Fishing provides me with an opportunity to spend time with my family	233	3.7	160	3.6
To change my preference for fishing to another leisure activity would require major rethinking	230	3.7	159	3.6
Fishing is one of the things in life that I'm actually good at	233	3.6	157	3.6
*When I participate in fishing others see me the way I want them to see me	230	3.6	159	3.3
Participating in fishing says a lot about who I am	229	3.5	159	3.4
Most of my friends are in some way connected with fishing	234	3.4	161	3.2
When I'm fishing, I'm less self-conscious	233	3.3	160	3.3
I identify with the image associated with fishing	233	3.3	159	3.3
You can tell a lot about a person by seeing them fishing	231	3.3	157	3.1
Fishing occupies a central role in my life	232	3.3	161	3.2
I find a lot of my life is organized around fishing	232	3.1	158	3.2
At times, I become overly self-conscious when I am fishing	234	2.3	160	2.3
I have little or no interest in fishing	232	1.5	159	1.4

¹Scale: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

*Significant at $p < 0.05$

Motivation for fishing

In general, the top motives for fishing among all respondents are relaxation and getting away from the regular routine (Table 17). This finding is similar to results from similar studies for recreational anglers (e.g., Fedler and Ditton, 1994, Falk et al., 1989). For Santee Cooper, anticipation of catch is moderately important to both visitors and non-visitors; however, visitors are more motivated by anticipation of the catch than non-visitors ($p < 0.05$). Also, testing one's equipment is more important to non-visitors than visitors ($p < 0.05$).

Table 17. General motivations for fishing for Santee Cooper visitors and non-visitors.

MOTIVATION	Visitor		Non-visitor	
	N	Mean ¹	N	Mean
For relaxation	236	4.1	160	4.2
To get away from the regular routine	235	4.1	159	4.1
To be outdoors	236	4.0	159	4.1
To be on the water	234	3.9	158	3.9
To experience natural surroundings	233	3.8	159	3.8
For the anticipation of the catch*	232	3.8	158	3.5
For the challenge or sport	234	3.7	159	3.6
To be away from crowds of people	232	3.7	159	3.7
To get away from the usual demands of life	231	3.7	155	3.7
For family recreation	235	3.6	159	3.5
For the experience of the catch	234	3.6	158	3.4
To develop my knowledge of fishing	230	3.5	157	3.6
To be with others who share my enthusiasm for fishing	233	3.5	156	3.3
To be with my family	233	3.5	158	3.4
To be with my friends	230	3.4	155	3.2
To develop my fishing skills and abilities	233	3.4	156	3.5
To bring our family closer together	233	3.2	158	3.1
To learn more about fishing the SCC lakes	231	3.2	151	3.0
To teach others what I have learned about fishing	230	3.1	157	2.9
To be on my own	233	3.0	156	3.2
to share what I have learned about fishing with others	232	3.0	154	2.9
To meet other anglers in the area	230	2.9	158	2.9
To be alone	232	2.5	155	2.6
To obtain a trophy fish	233	2.5	159	2.42
To test my equipment*	234	2.5	158	2.8
To be my own boss	231	2.5	158	2.7
To feel isolated	230	2.3	154	2.3
For physical exercise	232	2.3	156	2.4
To catch fish for eating	236	2.3	159	2.2

¹Scale: 1=Not at all Important, 2=Somewhat Important, 3=Moderately Important, 4=Very Important, 5=Extremely Important

*Significance at $p < 0.05$

Socio-Demographics of visitors and non-visitors

Among survey respondents, there is no significant difference between visitors and non-visitors with regard to gender, age, race, and education level (Table 18). Most visitors are white. Average age of visitors is 53.9 and for non-visitors is 54.1. Over half of visitors and non-visitors have an average household income above \$50,000. Regarding the number of weeks of vacation taken in 2003, there is no significant difference between visitors (n=214; mean = 6.2 weeks) and non-visitors (n=140; mean =8.0 weeks).

Table 18. Socio-demographic characteristics of visitors and non-visitors to Santee Cooper

Characteristic	Total		Visitors		Non-visitors	
	N	%	N	%	N	%
<i>Gender</i>						
Male	410	93.2	247	92.7	163	93.9
Female	410	7.1	247	7.3	163	6.1
<i>Education level</i>						
Maximum is high school	385	40.8	234	42.3	151	38.4
Some college	385	32.2	234	34.6	151	28.5
Bachelor's degree	385	16.6	234	14.5	151	19.9
Some graduate school	385	3.4	234	3.0	151	4.0
Graduate/professional degree	385	7.0	234	5.6	151	9.3
<i>Ethnicity</i>						
Hispanic or Latino	276	1.1	155	1.3	121	0.8
Not Hispanic or Latino	276	98.9	155	98.7	121	99.2
<i>Race</i>						
White	408	95.6	243	96.7	165	93.9
Black or African American	408	3.4	243	2.1	165	5.5
Asian American	408	0.5	243	0.8	165	.00
Indian or Alaskan Native	408	0.5	243	0.4	165	0.6
Native Hawaiian or other	408	0.0	243	0.0	165	0.0
Pacific Islander	408	0.0	243	0.0	165	0.0
<i>2003 Household Income*</i>						
Less than \$20K	367	6	218	4.1	149	8.7
\$20,000-\$34,999	367	19.1	218	18.8	149	19.5
\$35,000 to \$49,000	367	19.1	218	20.2	149	17.4
\$50,000 to \$74,999	367	27.5	218	27.5	149	27.5
\$75,000 to \$99,999	367	17.4	218	18.8	149	15.4
\$100,000 to \$124,999	367	4.6	218	5.0	149	4.0
\$125,000 to \$149,999	367	2.2	218	2.3	149	2
\$150K or higher	367	4.1	218	3.2	149	5.4
<i>Employment</i>						
Employed ft/pt	401	55.4	236	57.2	165	52.7
Retired	401	40.4	236	39	165	42.4
Other (unemployed, student, homemaker)	401	4.2	236	3.8	165	4.8
<i>Average Age (years, not %)</i>						
			245	53.9	160	54.1

* = Household income before taxes

There was no significant difference between visitors and non-visitors regarding hometown type. Table 19 shows hometown type for visitors and non-visitors

relative to where they lived as a youth (to age 18) and where they live now. The data show a slight decline from youth to now for hometown type that is farm or ranch. Three-quarters of respondents live in nothing larger than a small city. Less than 10% of respondents come from a large or major city.

Table 19. Hometown type during youth (to age 18) and now for visitors and non-visitors to Santee-Cooper.

HOMETOWN	%Total		% of Visitors		% of Non-visitor	
	YOUTH (N=395)	NOW (N=410)	YOUTH (N=232)	NOW (N=241)	YOUTH (N=163)	NOW (N=169)
farm or ranch	18.2	10.5	19.4	12.0	16.6	8.3
rural or small town (under 1,000 people)	18.7	20.5	21.6	24.5	14.7	14.8
town(1,000-5,000 people)	15.7	18.5	15.1	15.4	16.6	23.1
small city (5,000-50,000 people)	22.8	26.3	20.3	25.3	26.4	27.8
medium city (50,000-249,999 people)	12.7	13.2	12.5	11.6	12.9	15.4
large city (250,000-999,999 people)	6.3	7.3	6.0	7.9	6.7	6.5
major city or metropolitan area	5.6	3.7	5.2	3.3	6.1	4.1

Three-quarters of respondents (visitors and non-visitors) have no children in their household (Table 20).

Table 20. Number of children in household for visitors and non-visitors to Santee-Cooper.

Did you visit Santee Cooper?	# of Children in household								
	0	1	2	3	4	5	6	7	8
% in Visitor (N=237; M:0.4)	74	15	8.4	1.3	0.8	0.4	0.4	0	0
% in Non-visitor (N=166; M:0.5)	74	8.4	13	3	0.6	0.6	0	0	0.6

Demographics and fishing

Here we provide some analysis of the fishing data relative to age of respondents. (Additional demographic data analysis is provided in Section 3.7 on market segmentation.) Table 21 shows the relationship between age and most preferred fish for survey respondents. For non-visitors, the mean age for those who prefer “catfish” is significantly lower than for those who prefer “other” fish. Otherwise, there is no significant difference in the mean age of respondents between fish preference groups within the visitor or non-visitor segments. There is also no significant difference between visitors and non-visitors with respect to age. Interestingly, the mean age for Santee Cooper visitors is higher than what has been reported for resident (43 years) and non-resident (37 years) freshwater anglers in

South Carolina (Southwick and Allen, 2001). This information suggests that those who inquire about Santee Cooper Country information are likely to be older than the average freshwater angler in South Carolina.

Table 21. Mean age relative to preferred fish for visitors and non-visitor respondents to the Santee Cooper survey.

Most preferred fish	Visitors (N=222)		Non-visitors (N=144)	
	%	Mean Age	%	Mean Age
Catfish ¹	30.2	50.79	22.2	48.41 ^a
Bass ²	40.5	52.52	54.9	53.80
Crappie	10.8	57.75	2.8	57.50
Other ³	18.5	56.49	20.1	59.38 ^a

¹Catfish species include blue, channel and flathead catfish

²Bass species are primarily largemouth and striped.

³Other species include—American Shad, Artic Charr, Blue Gill, Bluefish, Bream, Dolphin, Flounder, Grouper, Kings, Muskey, Northern Pike, Panfish, Pike, Red Fish, Rockfish, Salmon, Shovel Heads, Snook, Spots, Trout, Tuna, Walleye.

^aSignificant difference at $p < 0.01$ between items labeled with same letters

Table 22 shows the relationship between age and whether the respondent fishes normally from shore, from a boat, or from shore and a boat. For visitors, results indicate that the mean age for boat only fishermen is significantly higher than for those who fish from shore ($p < 0.05$) or from shore and boat ($p < 0.01$). For non-visitors, the mean age of boat fishermen is significantly higher than for shore fishermen ($p < 0.01$).

Table 22. Relationship between age and normal fishing practices (from shore or boat) for visitor and non-visitor respondents to the Santee Cooper survey.

Do you normally fish from...?	Visitors only (N=228)		Non-visitors only (N=157)	
	%	Mean Age	%	Mean Age
Shore	9.7	48.5 ^b	11.5	45.4 ^c
Boat	55.7	56.0 ^{b,a}	42.7	57.0 ^c
Shore and boat	34.9	50.8 ^a	45.9	53.1

^{a,c}Significant difference at $p < 0.01$ exists between items labeled with the same letter.

^bSignificant difference at $p < 0.05$ between items labeled with the same letter

In general, the results suggest that older fishermen are more likely to fish from a boat. Possible reasons could be that older fishermen are fishing from boats due to their physical condition/health or having greater financial means for purchasing or renting a boat. For visitors only, there is a significant relationship between age and income, where mean age is higher for visitors whose income is below \$50,000 (Table 23).

Table 23. Relationship between age and income for visitor and non-visitor respondents to the Santee Cooper survey.

Income below or above 50K*	Visitors only (N=217)		Non-visitors (N=142)	
	%	Mean Age	%	Mean Age
Below 50K	42.9	55.6 ^a	45.1	53.2
50K or higher	57.1	51.4 ^a	54.9	53.6

*50K is just below the 4-person family median income (\$56K) for South Carolina and North Carolina residents in 2003 (see: <http://www.census.gov/hhes/income/4person.html>), and just above the median income (\$44K) for all US households in 2003 and 2004 (see: <http://www.census.gov/prod/2005pubs/p60-229.pdf>)

^aSignificant difference at p<0.05 between items labeled with the same letter

Results showed a significant relationship between income (above or below \$50K) and boat ownership for non-visitors [$X^2=(1,N=149)=4.60, p<0.05$] but no significant relationship for visitors (Table 24). There is no significant relationship for age and boat ownership (Table 25) for visitors or non-visitors. Therefore, boat ownership and use preferences among fishermen at Santee Cooper are likely related to other factors besides income or age.

Table 24. Percentage of Santee Cooper survey respondents (visitors and non-visitors) who own or do not own a fishing boat relative to income group (above or below 50K).

Income Level		Visitors		Non-visitors ^a	
		below 50K*	50K or higher	below 50K	50K or higher
Do you own a fishing boat?	N	91	119	68	81
	%Yes	76.9	74.8	58.8	75.3
	%No	23.1	25.2	41.2	24.7

*50K is just below the 4-person family median income (\$56K) for South Carolina and North Carolina residents in 2003 (see: <http://www.census.gov/hhes/income/4person.html>), and just above the median income (\$44K) for all US households in 2003 and 2004 (see: <http://www.census.gov/prod/2005pubs/p60-229.pdf>)

^aSignificant difference between below 50K and 50K or higher at p<0.05

Table 25. Relationship between age and boat ownership for visitor and non-visitor respondents to the Santee Cooper survey.

Do you own a fishing boat?	Visitors (N=232)		Non-visitors (N=160)	
	%	Mean age	%	Mean age
Yes	77.2	54.4	69.4	54.2
No	22.8	50.6	30.6	53.9

Summary of differences between Santee Cooper visitors and non-visitors

- Visitors and non-visitors are generally freshwater fishermen; visitors are also more likely to go saltwater fishing than non-visitors.
- Non-visitors fish in freshwater during the summer season for a significantly higher number of days than visitors.
- Non-visitors who fish in tournaments do so at a much higher rate than visitors who fish in tournaments.
- Visitors are more likely than non-visitors to own a fishing boat and to fish from the shore and a boat. Visitors are less likely than non-visitors to fish exclusively from a boat or from shore.
- Only half of all respondents subscribe to a fishing magazine. Among respondents who subscribe to a fishing magazine, the most common magazines are Bassmasters, In-Fisherman, and North American Fishing Club. One-fourth of respondents subscribe to some type of southeast regional fishing magazine (with SC Game and Fish being the most common).
- In general, respondents are more interested in the experience of fishing than keeping their catch; however, visitors are slightly more interested than non-visitors in actually catching fish and keeping their catch.
- Involvement in fishing is more important to visitors than for non-visitors with regard to “how others see me”.
- Visitors are more motivated than non-visitors by the anticipation of the catch.
- Testing one’s equipment is more important to non-visitors than visitors.
- There is a significant relationship between whether someone visited and the type of fish they prefer. In particular, non-visitors are more likely than visitors to prefer bass (striped, largemouth) and visitors are more likely than non-visitors to prefer catfish. However, the most preferred fish type is bass.
- The average age for boat only fishermen is significantly higher than for those who fish from shore or from shore and boat. For non-visitors, the mean age of boat fishermen is significantly higher than for shore fishermen.
- Older respondents who visited Santee Cooper are more likely to have an income below \$50,000. Among non-visitors, those with income that is below \$50,000 are less likely to own a boat than those with income that is \$50,000 or higher. However, among visitors, there is not a significant relationship between boat ownership and income level or age.

3.3 Visitor characteristics

Frequency of visits since first visit

Nearly one-half of the respondents (47.9%; n=234) made their first visit to Santee Cooper Country in the 1991 to 2000 period and the average number of total visits following the first visit is higher for those who visited prior to the 1991-2000 time period (Table 26). This makes sense because respondents who visited in earlier years would have had a longer time period during which to make additional visits.

Table 26. Survey respondents' first visit to Santee Cooper Country and average number of total visits after the first visit.

Year of 1st visit	% 1st visit (n=234)	Average # visits/respondent
Before 1970	6.8	98.8
1971 to 1980	9.4	15.1
1981 to 1990	14.1	18.4
1991 to 2000	47.9	4.5
2001 to 2004	18.4	1.2

Visitation relative to inquiry

Since the survey population was drawn from those who inquired about fishing in the Santee Cooper region during the 1997-2003 time period, it is possible to determine when visitation occurred in relation to inquiry date. Almost half (45.3%) of those respondents who inquired about Santee Cooper during 1997-2003 period actually visited Santee Cooper by the time they responded to the 2004 survey (Table 27). Also, about one-fifth of those who did not visit after their 1997-2003 inquiry, had visited prior to their most recent inquiry. Also, one-third of respondents who visited Santee Cooper took their first trip after their most recent inquiry (Table 28).

Table 27. Survey respondents' most recent visit to Santee Cooper Country relative to year of inquiry (i.e., did respondent visit after their 1997-2003 inquiry

Most recent visit year was...	N	%
After 97-03 inquiry	195	45.3
Before 97-03 but not after	46	10.7
Never visited	189	44.0
Total	430	100

Table 28. Survey respondents' first visit to Santee Cooper Country relative to year of inquiry (i.e., did respondent visit for the first time before or after their 1997-2003 inquiry?).

Was first trip before or after most recent inquiry?	N	%
Before	155	65.1
After	83	34.9
Total	238	100

Most recent visit

A majority of respondents' made their most recent visit during April thru May (Figure 3). Eighty-nine percent of the respondents who have visited Santee Cooper, made their most recent visit during the 1997 to 2004 period; this makes sense given

the survey sample was inquirers from 1997 to 2003. Also, one-third of all respondents who visited made their most recent trip in 2004 (the same year of the survey; Figure 4). While survey results for visitors are biased toward people who visited in 2004, they are also reflective of the conditions at the time of the survey.

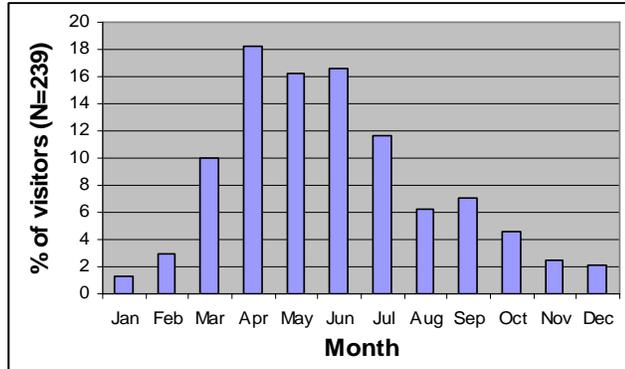


Figure 3. Month of survey respondents' most recent visit to Santee Cooper Country.

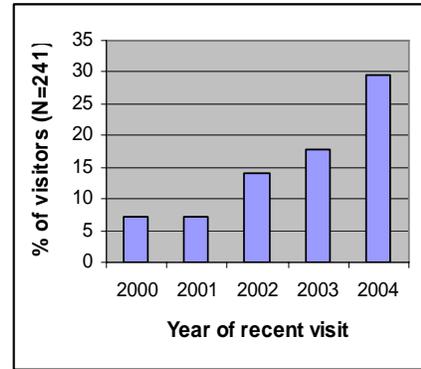


Figure 4. Year of survey respondents' most recent visit to Santee Cooper.

Trip length during recent visit

For those who have visited, the average number of days of the most recent visit is 4.6 (see Figure 5). During the sample period, the average number of days for most recent visit has remained stable (Figure 6).

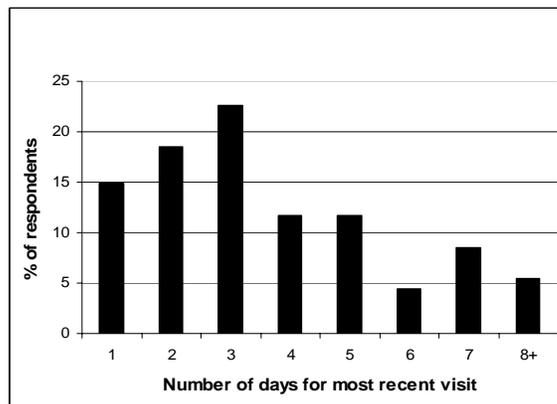


Figure 5. Number of days for most recent visit to Santee Cooper Country? (N = 241; Average = 4.6 days)

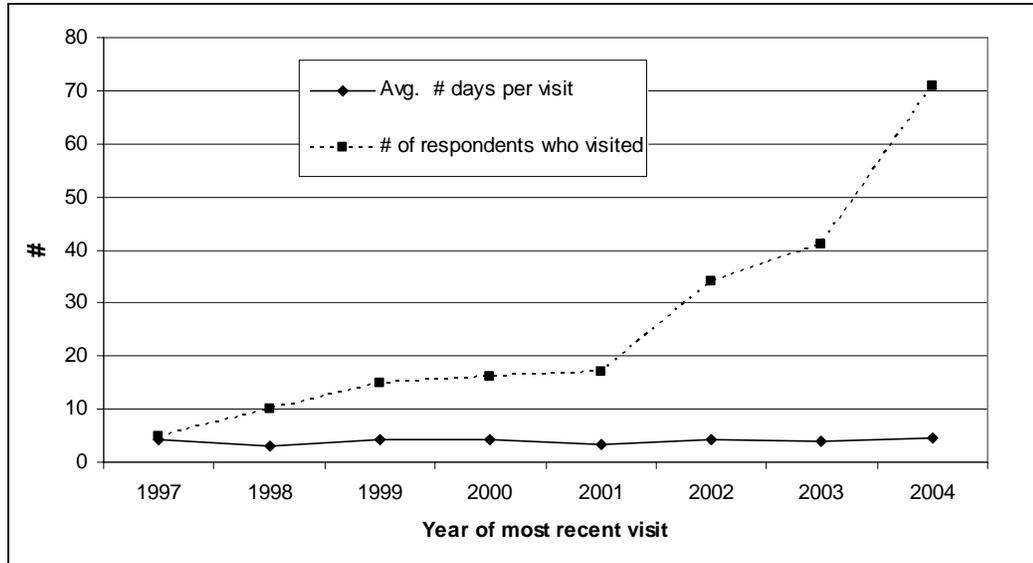


Figure 6. Average trip length (number of days) for respondents whose most recent visit to Santee Cooper Country occurred since the beginning of the 1997-2003 inquiry period survey.

Accommodations

A majority (43%) of the respondents who visited overnight (n=198) stayed in a hotel, motel, inn or lodge, 29% camped out, and 20% stayed in a house, cabin or condo. The remainder used a variety of other accommodations including house boat or resort.

Group composition

Among visitors (n=232), the average group size was 4.1 people; at least one-third of visitors traveled in a group of two, while almost 40% traveled in a group of four or more people. Groups were primarily composed of family (59%) and/or friends (49%). A few groups included business associates (under 4%) or members of a senior, church or fishing group (under 2%). Which of the following best describes the composition of your group on your most recent visit?

Trip planning

Three-quarters of respondents who visited (n=218) were responsible for deciding on Santee Cooper Country as the travel destination. The second most prevalent decision-makers were friends (11%) associated with the survey respondent. Over 80% of respondents took the overall lead in trip planning, while spouse (14.6%) and friend (13.0%) were the second and third most common trip planners.

The primary sources of travel information for Santee Cooper Country were brochures (14.2%), word-of-mouth (13.7%), internet (12.7%), magazine (9.8%) and past experience (9.8%). Word-of-mouth and past experience may serve as potential indicators of how the quality of the on-site experience may be affecting retention and/or recruitment of visitors.

For respondents who visited Santee Cooper Country (n = 242), 81.8% indicated that fishing was the primary reason for their visit; 5.8% indicated fishing was not the primary reason for their visit, but they planned to fish; and 0.8% did not plan to fish on their trip, but did go fishing. The remainder (11.6%) did not plan to fish and did not fish.

Activity during most recent trip to the Santee Cooper Country

A total of 211 respondents who visited confirmed that they actually participated in fishing during their most recent trip to Santee Cooper (see Table 29). The next most common activities were recreational/motor boating, watching wildlife, and walking. This focus on fishing as an activity is expected given the survey sample was originally selected from those who inquired about fishing in Santee Cooper region. For ALL of the activities that show participation in Table 29, participants included people who also fished. This means people who fish, are also willing to engage in other activities while visiting Santee Cooper. Activities specified for the “other” category included—attending a barbecue, cooking, business, attending oyster roast, going to the bar, dining, looking a real estate, and visiting friends/family nearby.

Table 29. Activities in which respondents engaged during their most recent trip to Santee Cooper Country (respondents could check more than one activity). (n=241)

ACTIVITY	%	ACTIVITY	%
fishing	86.9	visiting an unusual natural feature	2.5
recreational boating	28.6	canoeing, kayaking	2.5
watching wildlife	21.2	purchasing local works of art	2.5
walking for pleasure/exercise	19.9	attending outdoor sporting event	1.6
motor boating	19.3	off road vehicle riding	1.7
pleasure driving	15.3	hunting	1.6
camping	15.0	recreational sport	1.6
gift shopping	10.7	attending a live theater/music show	1.2
beach swimming/sunbathing	9.6	guided nature tour	1.2
visiting historical sites	8.6	guided historical tour	1.2
purchasing local crafts	8.7	visiting an aquarium	0.8
golfing	6.6	carriage tour	0.8
picnicking	6.6	visiting an amusement park	0.4
bird watching	6.2	horseback riding	0.4
visiting a farmer’s market	6.2	jet skiing	0.4
visiting local cultural sites	4.9	waterskiing	0.0
pool swimming	4.6	sail boarding/windsurfing	0.0
hiking	3.3	sailing	0.0
visiting a museum	2.9	other (<i>please specify</i>)	7.3
visiting historical homes	2.9		

Table 30 indicates whether those who planned fishing as a reason for their trip to Santee Cooper actually fished at the destination. The majority of those who planned to fish as a primary activity at Santee Cooper actually did fish. Also, two-thirds of those who of those who planned to fish as a secondary activity actually did fish. Interestingly, the majority of those who did not plan to fish, ended up fishing. A few people who did not plan to fish, did go fishing. This suggests the existence of a “don’t plan to fish” target segment for marketing about fishing.

Table 30. Comparison of fishing intentions during trip planning and actual fishing activity at Santee Cooper Country.

Which of the following best describes your most recent visit to Santee Cooper Country?	Went fishing at SCC on most recent trip	
	% Yes	% No
Fishing was the primary reason for visiting Santee Cooper. (n=198)	99.0	1.0
Fishing was not the primary reason for visiting Santee Cooper, but I did plan on fishing there before I left home. (n=14)	71.4	28.6
Did not plan to fish on my trip to Santee Cooper before I left home (n=29)	17.2	82.8

3.4 Fishing at Santee Cooper Country

This section summarizes results for the 211 respondents who visited Santee Cooper Country and actually fished on their most recent visit. Not all respondents answered every question (i.e., the total number of respondents for each question may be lower than 211).

Fishing location

Of those respondents who visited Santee Cooper Country and who fished (n=209), 92.9 % indicated that Santee Cooper Country was their primary destination, while the remainder (5.7%) stopped in the area on their way to another destination in the region (e.g., Myrtle Beach, Florida, Lake Murray, Charleston).

Among these respondents who fished during their most recent trip to Santee Cooper Country, Lake Marion was the most popular area (Table 31). Lake Moultrie is a more open water area that is easier to navigate. However, Lake Marion has tree stumps that remain underwater and provide habitat suitable for attracting certain preferred types of fish.

Table 31. Fishing locations of survey respondents who fished on their most recent trip to Santee Cooper area (n=203)

Fishing areas	%
Lake Marion	75.9
Lake Moultrie	44.8
Diversion Canal	34.0
Other (Goat island, Private lake, Santee river, State park)	3.4

The same fish site selection data was used to better understand the preference groups among those who fished (Table 32). Results indicate that a majority of respondents (58.5%) prefer a certain water body (Marion, Moultrie, Diversion canal or other spots) when fishing. For example, 39.1% of respondents who fished, used Lake Marion exclusively. However, 41.3% are willing to fish more than one water body and are therefore more flexible in their preferences. Table 33 shows patterns for fishing site selection according to season. These patterns should inform planning of tournaments and other events as well as efforts to reduce fishing pressure in capacity limited areas during certain seasons.

Table 32. Fishing site preferences among survey respondents who fished on their most recent trip to Santee Cooper area (n=203).

Fishing site preference groups	%
Marion only	39.4
Moultrie, Marion and Diversion canal	16.7
Moultrie and Marion only	12.3
Moultrie only	10.8
Marion and Diversion canal only	7.4
Moultrie and Diversion canal only	4.9
Diversion Canal only	4.9
Other spots only	3.4

Table 33. Frequency of fishing in the Santee Cooper region in the last 12 months for survey respondents who fished in the region during their most recent visit.

Location	I do not fish there	Average number of visits per season			
		Spring	Summer	Fall	Winter
Lake Marion (N=141)	58.9%	2.3	2.2	1.8	2.9
Lake Moultrie (N=133)	73.7%	1.6	2.5	1.5	1.4
Diversion Canal (N=130)	73.8%	2.3	2.0	1.7	1.8

Time spent fishing

Respondents who fished estimated that they spent an average of 3.4 days and an average of 24.2 total hours fishing during their most recent trip. This is equivalent to an average of seven hours fishing each day.

Catch

Respondents who fished indicated that their fishing group caught an average of 25.1 fish. They also indicated that they personally caught an average of 9.9 fish and kept an average of 5.4 fish —i.e., just over one-half (55%) of fish caught were kept.

The majority of respondents who fished caught catfish (72.8%). The second most common catch was bass (32.2%). Additional analysis revealed that 32.2% of respondents caught more than one type of fish (Table 34).

Table 34. Type of fish caught by survey respondents who fished during their most recent trip to Santee Cooper (n=202).

Fish type	%
Catfish ¹	72.8
Bass ²	32.2
Crappie	16.8
Bream	9.4
Others ³	8.5

¹Catfish species include blue, channel and flathead catfish

² Bass species are primarily largemouth and striped.

³ Other species include—American Shad, Artic Charr, Blue Gill, Bluefish, Dolphin, Flounder, Grouper, Kings, Muskey, Northern Pike, Panfish, Pike, Red Fish, Rockfish, Salmon, Shovel Heads, Snook, Spots, Trout, Tuna, Walleye.

Satisfaction with trip experience

An open ended question was used to ask survey respondents who visited what they most enjoyed about their most recent trip to Santee Cooper (Table 35). Over one-half of the respondents indicated that the fishing was the most enjoyable aspect of the trip. Respondents also enjoyed the setting and scenery, particularly being on the lake and appreciated the opportunity to rest and relax. Interestingly, few respondents mentioned time with friends and family as the most enjoyable aspect.

Table 35. Survey Respondents most enjoyed aspects of their most recent trip to Santee Cooper (n=194).

Most enjoyed...	%
Fishing	56.2
Setting/scenery	12.4
Relaxation	6.2
Accommodation	2.6
Friends	2.6
Viewing nature	2.6
Services (food)	2.6
Time away from home	2.6
Weather	2.6
Hospitality	2.1
Family	2.1
Boating	1.5
Water	1.5
Everything	1.0
Nothing/leaving	1.0
Golf	0.5

One-third (29.4%) of visitors who fished used a fishing guide or charter during their recent trip to Santee Cooper Country. Of those who used a guide and provided the name of their guide (n= 38), the most common guide mentioned was Captain Bill (15.8%), others mentioned include—Big Cats, Billy Spearin, Buster Rush, Brad Browder, Carroll Tanner, Casey Guide Service, Craig’s Guide Service, Don Wiles, Eddie Covington, Hawk ?, Herman Newitt, Hill Guide Services, J.P. Clark, Jackie Jones, Jerry Jones, Joe/Ricky Drose, John Ham, John Sellers, Norman ?, Pete Hilliard, Ken Ellis, and Pete Pritchard. These visitors were asked to rank guides on a scale of 1=strongly disagree to 5=strongly agree. In general, guides were ranked highly (Table 36).

Table 36. Rating of guide service by survey respondents who fished with a guide during their most recent trip to Santee Cooper.

Guide rating	n	Mean ¹	%					
			strongly disagree	disagree	neutral	agree	strongly agree	not applicable
My guide was knowledgeable	62	4.7	0.0	0.0	4.8	27.4	64.5	3.2
My guide was helpful	62	4.6	0.0	1.6	3.2	33.9	58.1	3.2
My guide provided a fun, pleasurable experience	62	4.5	0.0	1.6	9.7	25.8	59.7	3.2
My guide worked hard to find fish	62	4.5	1.6	3.2	8.1	17.7	66.1	3.2
My guide was rude and/or inconsiderate	60	1.5	73.3	18.3	1.7	0.0	1.7	5.0

¹Scale: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Visitors were asked to rate their fishing experience on a scale of 1=strongly disagree to 5=strongly agree. Table 37 shows the mean response for those who used a guide and those who did not. Overall ratings were positive. There was no significant difference between guide and non-guide users, except for the statement “There were too many people fishing where I was fishing,” meaning those who fished with a guide were less likely to feel there were too many people fishing.

Table 37. Rating of fishing experience by survey respondents who fished with a guide and without a guide during their most recent trip to Santee Cooper.

Santee Cooper Fishing Experience	with guide			without guide			all visitors who fished		
	n	Mean ¹	SD	n	Mean ¹	SD	n	Mean ¹	SD
I enjoyed spending time with my family	57	4.8	0.9	100	4.8	1.0	157	4.8	1.0
I enjoyed fishing with the people I fished with	59	4.7	0.5	101	4.5	0.9	160	4.6	0.8
It was good to be outdoors	58	4.6	0.6	103	4.5	0.8	161	4.5	0.7
I was able to get away from the usual demands of life	57	4.6	0.6	103	4.4	0.9	160	4.5	0.8
I would have liked to hav caught	59	4.4	1.0	101	4.4	0.9	160	4.4	0.9

Santee Cooper Fishing Experience	with guide			without guide			all visitors who fished		
	n	Mean ¹	SD	n	Mean ¹	SD	n	Mean ¹	SD
bigger fish									
I enjoyed eating the fish I caught	59	4.3	1.6	101	4.4	1.6	160	4.4	1.6
I wish I had caught more fish	59	4.2	1.1	102	4.4	1.0	161	4.3	1.0
I enjoyed the challenge and the sport	58	4.4	0.8	101	4.2	0.9	159	4.3	0.9
I thoroughly enjoyed the fishing trip	59	4.2	1.0	103	4.0	1.1	162	4.1	1.1
The fishing trip was well worth the money I spent to take it	59	4.0	1.2	102	3.9	1.2	161	4.0	1.2
I learned how to become a better angler	58	3.5	1.2	102	3.2	1.3	160	3.3	1.3
I cannot imagine a better fishing trip	58	3.2	1.4	101	3.0	1.3	159	3.1	1.3
I did not catch the kinds of fish I had hoped to	58	2.5	1.6	100	3.0	1.5	158	2.8	1.5
The fishing trip was not as enjoyable as I expected it to be	59	2.3	1.5	101	2.7	1.5	160	2.6	1.5
I do not want to go on any more fishing trips like that one	58	2.0	1.4	102	2.3	1.6	160	2.2	1.5
I was not able to experience peace and solitude	58	2.2	1.5	101	2.1	1.3	159	2.2	1.4
There were too many people fishing where I was fishing*	57	1.8	1.1	102	2.3	1.3	159	2.1	1.3
I had problems with my fishing equipment	58	1.8	1.2	102	2.1	1.4	160	2.0	1.4

¹ Measured along a scale where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

*=significant difference between the means at the .01 level

Visitors were asked to evaluate several lake attributes based on their previous experiences in the region (Table 38). Ratings of all attributes were positive. The lowest rank attributes included 1) other activities taking place on the lakes, 2) number of fish in the lake, 3) restrooms/toilets, 4) weeds in the lake, 5) submerged obstacles in the lake, and 6) too few rangers/management staff.

Table 38. Respondents' evaluation of lake attributes in the Santee Cooper region.

Lake Attributes	N	Mean ¹
<i>Lake and ramp access</i>		
Ramp hours of operation	197	4.2
Lake access by foot	196	4.1
Parking near the ramps	198	4.1
Ramp ease of use	199	4.1
Lake access by vehicle	199	4.1
Number of ramps	198	4.1
Ramp surface	197	4.1
<i>Impact of other users</i>		
Other anglers' pets	196	4.1
Opportunities for solitude	198	4.0

Lake Attributes	N	Mean ¹
Safety and security of the area	196	4.0
The cleanliness of the lake	196	4.0
The number of other anglers on the lake	195	4.0
The manners or etiquette of other anglers	199	3.9
The behavior of other anglers	199	3.9
The number of other anglers along the shore	197	3.9
The number of other ramp-users at the lake	196	3.9
The size of other groups encountered	195	3.9
Other activities taking place on the lakes	196	3.8
<i>Lake and area conditions</i>		
Fish habitat	193	4.2
Species of fish	194	4.1
Fresh water points at the lake	196	4.0
Size of fish	195	3.9
Fishing information available to anglers	197	3.9
Safety instructions	194	3.9
Number of fish in the lake	197	3.8
Restrooms/portable toilets at the lake	197	3.8
Weeds in the lake	197	3.8
Submerged obstacles	195	3.5
<i>Management actions</i>		
Number of rangers/management staff at the lake	196	4.0
Visibility of rules and regulations	197	3.9
Clarity of rules and regulations	197	3.9
Number of rules and regulations	197	3.9
Too few rangers/management staff at the lake	195	3.7
<i>Services</i>		
Marinas	193	4.1
Availability of support services	192	4.1
Lodging	193	4.0
Fishing supply stores	194	4.0

¹Scale: 1=Extremely Negative, 2=Negative, 3=Neutral, 4=Positive, 5=Extremely Positive

Overall, respondents who fished (n=194) were somewhat satisfied with their fishing experience on the lake they like most in the Santee Cooper region. The mean satisfaction rating was 3.6 on a scale of 1=Poor (5.9%); 2=Fair (13.8%); 3=Good (29.6%); 4=Very Good (27.1%); 5=Excellent (17.2%); 6=Perfect (6.4%).

An open ended question was used to ask survey respondents who visited what they least enjoyed about their most recent trip to Santee Cooper (Table 39). The greatest number of complaints focused on the fishing conditions—lack of fish or fish not biting. The second greatest number of complaints focused on the weather. The most prevalent complaints that could be addressed by Santee Cooper Country included area services and accommodations. Problems with area services include—park

bathroom facilities, availability of bait, lack of shopping area, lack of trash facilities, lack of good restaurants, availability of rental boats, and difficulty finding a guide. Problems with accommodations include—lodging conditions and quality, lodging availability near the lakes, quality of camping area, condition of house boat. Respondents also noted poor boating conditions, including—the number of stumps in the water, high wakes, boat ramp conditions, and number of weeds in the lake. Some complained about the travel to and from the area was also an issue, including—trip distance and time, and traffic. Other complaints that were mentioned include—annoying buglife, trip cost, crowding, water quality, lack of wildlife officers, and problems related to having small children on the trip.

Table 39. Survey Respondents least liked aspects of their most recent trip to Santee Cooper (N=175).

Least liked...	%
Fishing conditions	21.7
Weather	20.0
Area services	9.7
<i>Trip too short</i>	9.1
<i>Nothing</i>	8.6
Accommodation	7.4
Travel	7.4
Boating conditions	4.6
Wildlife	4.0
Cost	2.9
Crowds	1.1
Water quality	1.1
Management	0.6
Children	0.6

Visitors were also asked what things they would like management to improve about the fishing at the lake they fished most frequently in Santee Cooper Country. Respondents focused on both natural resource management solutions and area facilities and services (Table 40). Many of the comments were similar to responses to what respondents indicated they least liked about their trip to Santee Cooper.

Table 40. Respondents’ suggestions for improvement related to the lake they fish most frequently in the Santee Cooper region. (n=98).

Suggested improvement area	%
<i>Natural resource management</i>	
Information	18.4
Habitat	12.2
Stop commercial fishing	11.2
More fish	8.2
Fishing regulations	7.1
Clean up	5.1
Safety	4.1

Suggested improvement area	%
Other	3.0
<i>Area facilities and services</i>	
Facilities	9.2
Services	5.1
Accommodations	4.1
Bait	2.0
Other (access, cost)	2.0
<i>Nothing</i>	8.2

Suggestions for natural resource management improvements included:

- Provide more information on lake access, good fishing areas, advice on bait, navigation—Most of the comments in this category focused on the navigation problems—obstacles, open channels, and safe areas. This may be because low lake levels, caused by the extended drought, increased encounters with underwater obstacles such as tree stumps.
- Improve fish habitat—Comments primarily focused on aquatic vegetation (too little, too much) and water levels.
- Stop commercial fishing—Respondents suggested banning or limiting commercial fishing on the lake.
- More fish—Anglers would like to see more bass and catfish (including trophy sized) in the lake.
- Fishing regulations—Respondents suggested stricter catch limits (size and number) for catfish, catch and release, and opening the lakes to fishing 24/7.
- Improve lake cleanliness—Comments focused on the water condition and need for litter reduction.
- Boating safety—Respondents suggested teaching boating etiquette, regulations that improved safety conditions for fishing boats on the lake, and zoning of area use.
- Enforcement—One respondent suggested the need for more wildlife officers.
- Other—Other comments included the need for more wildlife officers, reduction of the number of tournaments on the lake, and reduction of the number of birds (e.g., geese?).

Suggestions for improvements in area facilities and services included:

- Facilities—Comments focused on the need for maintenance of boat ramps, more boat ramps, more parking associated with ramps/docking areas, fishing pier improvements, and accessibility of bathroom facilities.

- Services—Respondents would like more rental boats, improved guide service, more good restaurants, more variety in travel packages, and a disposal system for fish carcasses.
- Accommodations—Respondents would like more nice lodging, particularly close to the lake.
- Bait—Comments focused on availability of more bait.
- Other—Respondents also noted the need to open the entire area to fishermen and to lower costs.

In general, visitor response was positive to the question “How likely is it that you will visit Santee Cooper Country within the next 12 months?” (n=218). The mean response was 2.1 on a scale of 1=Very Likely (38.1%), 2=Likely (28.4%), 3=Unlikely (21.6%), 4=Very Unlikely (8.7%), and 5=No Chance (3.2%). There was no significant difference between guide users and nonusers. For those who answered “unlikely” or “no chance”, the most common reasons were no time, no plans, and poor fishing (Table 41).

Table 41. Respondents reasons for “unlikely” or “no chance” response to “How likely is it that you will visit Santee Cooper Country within the next 12 months?” (n=54)

Reason	%
Poor fishing conditions	25.9
No time	22.2
No plans	22.2
Site (location, quality)	11.1
Health/age	7.4
Depends on others	5.6
Cost	5.6
Unsure	1.9

Spending while visiting

Respondents who visited Santee Cooper were asked to describe their spending and estimate their expenses during their most recent trip to Santee Cooper. The following information that is provided is based on visitors who fished.

Visitors were asked about responsibility for expenses. More than half (63.3%) of respondents who fished paid their own expenses or their own expenses and those of other people (Table 42).

Table 42. Expense responsibility of respondents who fished during their most recent visit to Santee Cooper (n=185)

Responsibility for expenses	%
I paid all my expenses and the expenses of other people (mean = 1.7 people)	38.4
I paid all of my own expenses	24.9
I shared expenses	34.6
Someone else paid my expenses.	2.2

Visitors were also asked to estimate their expenses. Table 43 summarizes results for visitors who fished and had some responsibility for their expenses during their most recent trip to Santee Cooper.

Table 43. Estimated expense summary for respondents who fished and paid their own expenses, their own expenses and those of others, or shared expenses during their most recent trip to Santee Cooper Country. (n=181)

Type of Expense	Where Expenditures Were Made by Respondent (n=181) (Mean per respondent)		
	At home or in your home community	During your travel to Santee Cooper Country	Within Santee Cooper Country
Restaurant (including fast food, sit down, etc.)	\$1.66	\$13.25	\$56.89
Packaged food and beverages	\$11.57	\$5.17	\$21.90
Personal items (film, souvenirs, etc.)	\$5.56	\$0.64	\$9.06
Equipment for your trip (fishing rods, reels, lures, bait, camping equipment)	\$253.28	\$3.69	\$13.07
Lodging Expenses	\$1.19	\$10.91	\$104.02
Transportation	\$11.27	\$28.93	\$19.75
Permits or user fees	\$0.74	\$1.24	\$13.50
Guide or outfitter fees	\$0.00	\$6.91	\$55.36
Boat rental	\$0.00	\$0.00	\$19.83
Fees at other attractions/entertainment	\$0.66	\$0.99	\$5.28
All other expenses for this trip: Baits, gas, and other rental charges	\$1.38	\$3.13	\$11.38
MEAN TOTAL per respondent	\$287.31	\$74.86	\$330.04

MEAN TOTAL Trip spending per respondent: \$692.21 (47.7% spent in Santee Cooper Country)

3.5 Feelings About Santee Cooper Country

This section addresses personal feelings about and satisfaction with the Santee Cooper region and area attributes. The analysis in this section focuses on those who fished during their most recent visit. Table 44 summarizes respondents' feelings about the Santee Cooper region, based on a scale of 1=Strongly Disagree to 5=Strongly Agree. Please note that the last two statements, which have the lowest mean, are the only negative statements about Santee Cooper.

Table 44. Feelings that respondents who fished while visiting have about the Santee Cooper area (n=211).

FEELINGS	N	Mean ¹
I feel that I can be myself when I visit Santee Cooper Country	210	4.2
I have a lot of fond memories of past experiences with family and friends in Santee Cooper Country	210	4.1
Visiting the Santee Cooper Country allows me to spend time with my family and friends	211	3.8
The time spent on the Santee Cooper Country lakes allows me to bond with my family and friends	211	3.7
I am very attached to the Santee Cooper Country	207	3.6

FEELINGS	N	Mean¹
The Santee Cooper Country means a lot to me	209	3.5
I can't imagine a better place for what I like to do	209	3.4
I associate special people in my life with Santee Cooper Country	211	3.3
I enjoy visiting the Santee Cooper Country more than any other lake area	212	3.3
I have a special connection to the anglers who visit Santee Cooper Country	210	3.3
My attachment to Santee Cooper Country provides a glimpse of the kind of person I am	208	3.3
Many of my friends/family prefer the Santee Cooper Country over other lakes	211	3.2
I identify strongly with the Santee Cooper Country	210	3.2
Visiting the Santee Cooper Country says a lot about who I am	211	3.2
I feel a strong sense of belonging to Santee Cooper Country	208	3.2
Compared to the Santee Cooper Country, there are few satisfactory alternatives	210	3.1
I feel the Santee Cooper Country is a part of me	208	3.0
I feel that my identity is reflected in the Santee Cooper Country	207	3.0
I have little, if any, emotional attachment to the Santee Cooper Country	210	2.8
I feel that a lot of other fishing spots could substitute for the Santee Cooper Country	210	2.8

¹Scale: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Familiarity/Attachment

Respondents who fished during their most recent trip were asked to rank their familiarity with and attachment to the Santee Cooper region on a scale of 1 (Not at all) to 9 (Extremely) (Table 45). In both cases the mean ranking was below the mid-point on the scale. This indicates that visitors were moderately familiar and attached to Santee Cooper Country.

Table 45. Respondents' rating of their familiarity with and attachment to Santee Cooper Country.

Scale	%	
	Familiarity¹ (n=202)	Attached² (n=203)
1	5.4	9.4
2	8.4	13.8
3	14.4	14.8
4	16.8	12.8
5	17.3	18.7
6	12.9	9.9
7	11.9	8.9
8	6.9	5.9
9	5.9	5.9
MEAN	4.9	4.5

¹1= not at all familiar, 9 = extremely familiar

²1= not at all attached, 9 = extremely attached

3.6 Market segmentation analysis

Market segmentation analysis provides a valuable method for identifying target markets. This section uses market segmentation to define segments relative to respondent's attachment to the Santee Cooper region and their orientation regarding the consumption of fish.

Attachment to Santee Cooper Country

Distinct market segments were identified based on respondents' attachment to the Santee Cooper Country (SCC). The rationale for this approach was the need to characterize respondents relative to potential for repeat visits to the region. Attachment was measured using 17 items that were designed to capture four dimensions of consumers' attachment to the SCC (see Table 46; also see section C.2 of the survey provided in Appendix A). These four dimensions are:

1. *Place Identity* – Examines the extent to which consumers' identities are reflected in the SCC region;
2. *Place Dependence* – Examines the extent to which consumers' are dependent on the SCC for their angling and recreational pursuits;
3. *Affective Attachment* – Examines the extent to which consumers' are emotionally attached to the SCC; and
4. *Social Bonding* – Examines the degree to which consumers' attachment to the SCC is a function of the ties to friends and family in the SCC.

First, respondents were requested to read each of the items concerning their feelings related to the SCC and indicate their level of agreement on a scale where 1=Strongly Disagree through 5=Strongly Agree. Only respondents that had previously visited the SCC were instructed to complete this section of the survey instrument ($n=211$).

Table 46. Place Attachment item descriptives for respondents who were visitors to Santee Cooper Country ($n=211$)

Place Attachment	Mean ¹	SD
<i>Place Identity</i>	3.12	0.78
My attachment to Santee Cooper Country provides a glimpse of the kind of person I am	3.25	0.91
I identify strongly with the Santee Cooper Country	3.22	0.94
I feel Santee Cooper Country is a part of me	3.02	0.94
I feel that my identity is reflected in the Santee Cooper Country	2.98	0.89
<i>Place Dependence</i>	3.21	0.87
I can't imagine a better place for what I like to do	3.40	1.04
I feel that a lot of other fishing spots could substitute for the Santee Cooper Country ²	3.17	1.05
Compared to the Santee Cooper Country, there are few satisfactory alternatives	3.05	1.04
<i>Affective Attachment</i>	3.36	0.83

Place Attachment	Mean ¹	SD
I am very attached to the Santee Cooper Country	3.60	1.00
The Santee Cooper Country means a lot to me	3.53	0.91
I enjoy visiting the Santee Cooper Country more than any other area	3.32	1.04
I feel a strong sense of belonging to Santee Cooper Country	3.18	0.93
I have little, if any, emotional attachment to the Santee Cooper Country ²	3.18	1.06
<i>Social Bonding</i>	3.52	0.72
I have a lot of fond memories of past experiences with family and friends in Santee Cooper Country	4.09	0.90
The time spent on the Santee Cooper Country lakes allows me to bond with my family and friends	3.74	0.86
I associate special people in my life with Santee Cooper Country	3.32	0.98
I have a special connection to anglers who visit Santee Cooper Country	3.28	0.93
Visiting Santee Cooper Country allows me to spend time with my family and friends	3.20	0.91

¹Scale was 1=Strongly Disagree through 5=Strongly Agree.

²Item is reverse coded for use in scale summary (e.g., 1=5, 2=4...)

Note: See Appendix C for results of confirmatory factor analysis used to define the four place attachment dimensions..

As shown in Table 46, respondents tended to most strongly agree with the items related to *Social Bonding* (grand $M=3.52$). Alternately, respondents were less inclined to indicate that the SCC was part of their own identities (i.e., *Place Identity*; grand $M=3.12$). Overall, their responses to the other place items tended to fall slightly above “neutral,” indicating moderate levels of attachment to the SCC.

Segmenting Respondents into Homogenous Groups

Respondents were then grouped into three homogenous segments based on their scores on the dimensions of attachment to the SCC¹. The decision criteria that we used to segment respondents reflected the following concerns; (a) distinctiveness of the emergent segments – segments need to be substantively different from one another, and (b) size of the segments – segments need to be of sufficient size to be considered viable (Morrison, 1996).

The segmentation procedures illustrated that a three segment solution best fit our decision criteria. We titled these segments *Moderates*, *Indifferents*, and *Loyalists*. The pattern of the attachment scores for these segments reflected a linear pattern of low to high (illustrated in Table 47).

¹ We used the K-means cluster procedure provided in SPSS.

Table 47. Place attachment segmentation for respondents who were visitors to Santee Cooper Country (N=211).

Dimension	Segment (M')		
	Indifferents	Moderates	Loyalists
Place Identity	1.97	3.08	3.76
Place Dependence	2.20	2.96	4.06
Affective Attachment	2.18	3.20	4.19
Social Bonding	2.66	3.59	4.20
<i>n</i> (%)	36 (17.06%)	103 (48.82%)	72 (34.12%)

¹Scale was 1=Strongly Disagree through 5=Strongly Agree.

Indifferents scored lowest on all dimensions of attachment, followed by *Moderates* scoring slightly above “neutral,” and then *Loyalists* who scored highest on all dimensions of attachment. *Moderates* were the largest segment consisting of just under half of the sample (48.82%), followed by *Loyalists* (34.12%), and then *Indifferents* (17.06%). A conceptual summary of the segments is provided in Table 48.

Table 48. Summary of place segmentation for respondents who were visitors to Santee Cooper Country.

Dimension	Segment (M)		
	Indifferents	Moderates	Loyalists
Place Identity	low	medium	medium/high
Place Dependence	low	medium	high
Affective Attachment	low	medium	high
Social Bonding	low	medium/high	high
<i>n</i> (%)	36 (17.06%)	103 (48.82%)	72 (34.12%)

The following narrative and tables depict a profile contrasting the characteristics of the identified market segments.

Socio-demographic

Table 49 below illustrates the socio-demographic characteristics of each market segment. These results illustrate that little significant variation (only household income was significant at $p \leq 0.05$) was observed among the segments in terms of respondents' socio-demographic characteristics. These results support recent evidence suggesting that socio-demographic characteristics are a poor segmentation base given that leisure preferences often transcend demographics (Morrison, 1996; O'Sullivan & Spangler, 1998).

Visit history

Table 50 presents findings related to comparisons among segments with regard to their previous visitation to the SCC and their group composition. As reflected in Table 50, the only notable variation among segments in past use history was

reflected in consumers' subsequent visitation following their first visit ($p \leq 0.001$). *Loyalists* were the most frequent visitors (28% had more than 20 visits and another 17% had between 11 and 20 visits since their first visit) followed by *Moderates* (40% had 1-3 visits) and then *Indifferents* (49% were making their first visit). Significant variation ($p \leq 0.05$) was also observed among segments with regard to the composition of respondents' groups on their last visit. While the group composition of *Moderates* and *Indifferents* were relatively similar (i.e., between two to four people), *Loyalists* were slightly more inclined to indicate visiting on their own (11.76%) or visiting in a large group of more than six people (14.71%).

Use Pattern

Tables 51 and 52 depict segments' use of the SCC in terms of preferred angling locations, angling duration, and seasonal use. As shown in Table 51, there was little variation across segments with regard to their choice of angling locations based on where they fished in the SCC. Consistent with the finding that segments do not substantively differ in terms of their choice of angling locations (see Table 51), segments also did not differ in their seasonal use of the lakes and diversion canal (Table 52).

Evaluation of Fishing Experience and Service Elements

Respondents were requested to evaluate their experience on their most recent visit to the SCC. The statements listed in Table 53, explored a variety of issues related to their angling experience along with their intentions to return to the SCC. For the three segments, *Loyalists* rated the overall experience highest, followed by *Moderates* and then *Indifferents*. *Loyalists* are the most likely to return to the SCC followed by *Moderates* and then *Indifferents*. Given that almost half of the *Indifferents* were answering the survey after their first visit, the relatively lower rating by *Indifferents* may be an indicator that the first few visits are not resulting in a satisfactory rating for the Santee Cooper experience or convincing them to return to the region.

Table 49. Socio-demographic profile for Place attachment segments

Variable		Segments (%) ¹			χ^2	Cramér's V	df
		Indifferents	Moderates	Loyalists			
Sex ¹	Female	8.57	7.84	6.94	0.098	.098	2
	Male	91.43	92.16	93.06			
Age	18 – 25 years	0.00	1.96	0.00	18.018	.208	12
	26 – 35 years	5.56	5.88	11.27			
	36 – 45 years	30.56	13.73	19.72			
	46 – 55 years	19.44	33.33	28.17			
	56 – 65 years	25.00	22.55	26.76			
	66 – 75 years	13.89	20.59	7.04			
	76 years and older	5.56	1.96	7.04			
Education ¹	Never attended or kindergarten?	97.2	92.2	95.8	21.893	.23	14
	Elementary/Middle school	2.94	2.04	0.00			
	High School	44.12	46.94	32.84			
	One year of college	2.94	20.41	17.91			
	Associate degree in college/two years of college	5.88	13.27	16.42			
	Three years of college	5.88	1.02	5.97			
	Four or more years of college/Bachelor's degree	29.41	10.20	13.43			
	Some graduate or professional school, but no degree	2.94	3.06	2.99			
	Graduate or professional degree	5.88	3.06	10.45			

¹ Percentages are based on column totals within each segment.

Table 49, continued.

Variable		Segments (%) ¹			χ^2	Cramér's V	df
		Indifferents	Moderates	Loyalists			
Household Income ¹	Under \$10,000	.00	1.08	.00	23.376*	.246	22
	\$10,000 to \$19,999	.00	3.23	4.23			
	\$20,000 to \$24,999	3.45	6.45	2.82			
	\$25,000 to \$29,999	6.90	6.45	5.63			
	\$30,000 to \$34,999	6.90	7.53	9.86			
	\$35,000 to \$39,999	3.45	8.60	4.23			
	\$40,000 to \$49,999	10.34	16.13	12.68			
	\$50,000 to \$74,999	20.69	26.88	30.99			
	\$75,000 to \$99,999	20.69	17.20	21.13			
	\$100,000 to \$124,999	6.90	3.23	5.63			
	\$125,000 to \$149,999	6.90	2.15	1.41			
	\$150,000 or more	13.79	1.08	1.41			
Employment ¹	Employed outside the home	63.16	58.51	56.34	8.296	.112	10
	Unemployed	.00	.00	4.23			
	Retired	34.21	39.36	35.21			
	Full-time homemaker	.00	.00	.00			
	Student	2.63	2.13	4.33			
Race/Ethnicity ¹	Hispanic or Latino	2.78	.99	.00	4.123	.096	8
	White	94.44	94.06	97.22			
	Asian American	.00	1.98	.00			
	Black or African American	2.78	1.98	2.78			
	American Indian or Alaskan Native	.00	.99	.00			
	Native Hawaiian or other Pacific Islander	.00	.00	.00			
Type of Community ¹	On a farm or ranch	8.82	11.88	15.71	18.356	.212	12
	Rural or small town (under 1,000 people)	20.59	33.66	14.29			
	Town (1,000 – 4,999 people)	8.82	16.83	18.57			
	Small city (5,000 – 49,999 people)	38.24	21.78	22.86			
	Medium city (50,000 – 249,999 people)	17.65	6.93	14.29			
	Large city (250,000 – 999,999 people)	5.88	4.95	10.00			
	In a major city or metropolitan area (> 1 million people)	.00	3.96	4.29			

¹ Percentages are based on column totals within each segment., * $p \leq 0.05$

Table 50. Evaluation of place attachment segments relative to visit history for Santee Cooper Country.

Variable		Segments (%) ¹			χ^2	Cramér's V	df
		Indifferents	Moderates	Loyalists			
Year of 1 st Visit	2000 to 2004	38.89	30.61	30.43	11.557	.169	6
	1990 to 1999	38.89	47.96	28.99			
	1980 to 1989	16.67	11.22	20.29			
	Before 1980	5.56	10.20	20.29			
Number of visits since first visit	This is my first visit	48.57	33.33	8.70	51.744***	.360	10
	1 – 3 visits	20.00	39.58	18.84			
	4 – 6 visits	11.43	7.29	17.39			
	7 – 10 visits	8.57	8.33	10.14			
	11 – 20 visits	8.57	7.29	17.39			
	More than 20 visits	2.86	4.17	27.54			
Days spent on most recent visit	1 day	5.71	11.88	12.68	5.411	.114	6
	2 days	22.86	21.78	14.08			
	Between 3 to 5	57.14	47.52	46.48			
	More than 6	14.29	18.81	26.76			
How many in group (including self)	Self	3.13	3.03	11.76	17.438*	.209	8
	1 other	40.63	46.46	27.94			
	3 – 4 people	37.50	37.37	36.76			
	5 – 6 people	15.63	9.09	8.82			
	More than 6 people	3.13	4.04	14.71			
Decision maker	Self	76.67	73.12	80.30	11.719	.176	14
	Spouse	6.67	8.60	3.03			
	Children	0.00	2.15	.00			
	Parent	3.33	.00	3.03			
	Sibling	0.00	.00	1.52			
	Friend	13.33	10.75	9.09			
	Business associate	0.00	1.08	.00			
	Other	0.00	4.30	3.03			

¹ Percentages are based on column totals with each segment, * $p < 0.05$, *** $p < 0.001$

Table 51. Evaluation of place attachment segments relative to visit characteristics for Santee Cooper Country.

Variable		Segments (%) ¹			χ^2	Cramér's V	df
		Indifferents	Moderates	Loyalists			
Fishing location on most recent visit (yes) ²	Lake Moultrie	32.86	30.71	22.86	1.551	.077	2
	Lake Marion	33.8	34.64	38.57			
	Diversion Canal	33.8	34.64	34.29			
Days Spent Fishing	1 day	17.65	18.56	22.54	10.383	.160	6
	2 days	23.53	25.77	22.54			
	Between 3 to 5	52.94	44.33	30.99			
	More than 6	5.88	11.34	23.94			
Primary Destination - Santee Cooper Country		91.43	93	98.61	3.508	.130	2

¹ Percentages are based on column totals with each segment.

² Respondents were permitted to check more than one location

Table 52. Evaluation of place attachment segments relative to Santee Cooper seasonal use pattern (number of visits) over the last 12 months.

Fishing location		Segments ¹ (M, SD)						F	η^2	df
		Indifferents		Moderates		Loyalists				
Lake Marion	Spring	1.17	0.41	1.59	1.37	3.00	3.99	1.551	.07	2,44
	Summer	0.00	0.00	2.20	1.69	2.32	1.70	0.885	.06	2,30
	Fall	0.75	0.50	1.31	1.25	2.31	2.33	1.722	.10	2,30
	Winter	2.50	3.54	4.57	7.07	1.00	0.89	0.885	.06	2,30
Lake Moultrie	Spring	1.25	0.50	1.50	1.35	1.77	1.01	0.390	.03	2,27
	Summer	0.00	0.00	1.57	1.72	3.38	2.39	2.741	.17	1,15
	Fall	1.00	0.00	1.11	0.93	2.20	0.84	2.505	.29	2,15
	Winter	2.00	0.00	0.25	0.50	1.00	1.00	3.750	.35	2,8
Diversion Canal	Spring	1.00	0.00	3.22	6.32	2.20	1.81	0.487	.04	2,24
	Summer	0.00	0.00	2.29	3.50	1.82	1.54	0.154	.01	1,18
	Fall	1.00	0.00	1.88	1.89	1.75	.96	0.245	.04	2,14
	Winter	1.00	0.00	1.40	1.95	2.67	2.08	0.464	.13	2,9

¹ # of visits

Table 53. Evaluation of place attachment segments relative to satisfaction with Santee Cooper Country Fishing Experience

Experience satisfaction	Segments (<i>M, SD</i>) ²						<i>F</i>	η^2	df
	Indifferents		Moderates		Loyalists				
a. I thoroughly enjoyed the fishing trip ²	3.09 ^b	(1.16)	4.17 ^a	(.93)	4.63 ^c	(.56)	25.49***	.26	2, 144
b. It was good to be outdoors	4.09 ^a	(1.00)	4.49	(.69)	4.73 ^b	(.66)	6.17**	.08	2, 144
c. I was able to get away from the usual demands of life	4.00 ^b	(.85)	4.46 ^a	(.79)	4.67 ^a	(.73)	5.96*	.08	2, 144
d. The fishing trip was not as enjoyable as I expected it to be	3.43 ^b	(1.44)	2.54 ^a	(1.52)	2.06 ^a	(1.30)	7.38**	.09	2, 144
e. I did not catch the kinds of fish I had hoped to	3.57 ^a	(1.41)	2.90	(1.53)	2.42 ^b	(1.50)	4.75*	.06	2, 144
f. I cannot imagine a better fishing trip	2.17 ^b	(1.07)	2.92 ^a	(1.25)	3.67 ^c	(1.15)	13.77***	.16	2, 144
g. I enjoyed fishing with the people I fished with	4.30 ^a	(1.11)	4.57	(.78)	4.77 ^b	(.51)	3.07*	.04	2, 144
h. I wish I had caught more fish	4.57	(1.16)	4.21	(1.03)	4.13	(1.12)	1.31	.02	2, 144
i. I do not want to go on any more fishing trips like that one	3.22 ^b	(1.48)	2.01 ^a	(1.37)	1.67 ^a	(1.20)	10.95**	.13	2, 144
j. I enjoyed eating the fish I caught	4.00	(1.98)	4.78	(1.26)	4.54	(1.28)	2.72	.04	2, 144
k. I enjoyed spending time with my family	4.48	(1.44)	4.96	(.85)	4.77	(.98)	2.07	.03	2, 144
λ. The fishing trip was well worth the money I spent to take it	3.17 ^b	(1.40)	4.00 ^a	(1.10)	4.54 ^c	(.67)	14.29***	.17	2, 144
m. I enjoyed the challenge and the sport	3.74 ^b	(1.05)	4.28 ^a	(.92)	4.62 ^a	(.53)	9.01***	.11	2, 144
n. I would have liked to have caught bigger fish	4.74	(1.01)	4.26	(.92)	4.31	(1.04)	2.15	.03	2, 144
o. I was not able to experience peace and solitude	2.74 ^a	(1.51)	2.22	(1.32)	1.85 ^b	(1.32)	3.58*	.05	2, 144
p. I had problems with my fishing equipment	2.26	(1.39)	2.06	(1.33)	1.73	(1.17)	1.65	.02	2, 144
q. There were too many people fishing where I was fishing	2.43 ^a	(1.34)	2.26	(1.24)	1.75 ^b	(1.12)	3.67*	.05	2, 144
r. I learned how to become a better angler	2.48 ^b	1.38	3.22 ^a	(1.13)	3.81 ^c	(.93)	11.99***	.14	2, 144
s. Rating of overall experience ³	2.42 ^b	(1.12)	3.38 ^a	(1.11)	4.35 ^c	(1.06)	37.00***	.27	2, 196
t. Likelihood of return ⁴	2.83 ^b	(1.00)	2.22 ^a	(1.10)	1.51 ^c	(1.10)	22.06***	.18	2, 205

Note: Opposing superscripts indicate significant difference, * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$

¹ Percentages refer to number of respondents indicating that they had fished the location

² Items a thru r Measured on a scale where 1=Strongly Disagree and 5=Strongly Agree

³ Measured along a scale where 1=Poor, 2=Fair, 3=Good, 4=Very Good, 5=Excellent, and 6=Perfect

⁴ measured along a scale where 1=Very Likely, 2=Likely, 3=Unlikely, 4=Very Unlikely, and 5=No Chance

As reflected in Table 53, overall, *Loyalists* were the most satisfied with their experience in the SCC, followed by *Moderates*, and then *Indifferents*. Of the 19 items exploring various experience elements, variations were observed on 14 items. These findings illustrated that *Loyalists*:

- Most enjoyed their fishing trip and experience in the SCC (a, d, f, i, & s),
- Were happier to be outdoors and escaping the usual demands of life (b, c),
- Were most content with the type of fish caught (e),
- Where happiest with members of their group and those around them (g, o, q),
- Considered their trip to the SCC to be well worth the money they spent (l),
- Were more focused on their angling experience (m, r), and
- Were most likely to return.

Respondents were also asked to evaluate the effect of various service attributes on their experience for their last visit to the SCC (Table 54). We used 35 items to explore five areas of service delivery; *Lake and Ramp Access*, *Impact of Other Users*, *Lake Area and Conditions*, *Management Actions*, and *Services*.

Table 54. Evaluation of place attachment segments relative to satisfaction with Santee Cooper Country Fishing Service and Setting Attributes

Attribute	Segments (<i>M, SD</i>) ¹						<i>F</i>	η^2	df
	Indifferents		Moderates		Loyalists				
<i>Lake and ramp access</i>									
a. Lake access by vehicle	3.42 ^b	1.07	3.91 ^a	.65	4.10 ^a	.79	5.33**	.07	2, 132
b. Lake access by foot	3.42	1.07	3.41 ^a	.78	3.80 ^b	.88	3.18*	.05	2, 132
c. Number of ramps	3.37 ^a	1.21	3.64	.80	3.94 ^b	.91	3.17*	.05	2, 132
d. Ramp ease of use	3.58	1.02	3.73	.81	4.02	.87	2.45	.04	2, 132
e. Ramp surface	3.42	.90	3.68	.77	3.90	.86	2.52	.04	2, 132
f. Parking near the ramps	3.63 ^a	.96	3.73 ^a	.78	4.14 ^b	.70	5.04**	.07	2, 132
g. Ramp hours of operation	3.79	.92	3.71 ^a	.72	4.14 ^b	.83	4.31*	.06	2, 132
<i>Impact of other users</i>									
h. Other activities taking place on the lakes	3.00	1.00	3.20	.55	3.40	.82	1.96	.03	2, 137
i. The number of other anglers along the shore	3.18 ^a	.88	3.25 ^a	.58	3.70 ^b	.89	5.30**	.08	2, 137
j. The number of other ramp-users at the lake	3.29	.77	3.25	.58	3.51	.94	1.52	.03	2, 137
k. The size of other groups encountered	3.41	.80	3.22 ^a	.49	3.67 ^b	.81	5.75**	.09	2, 137
l. The manners or etiquette of other anglers	3.59	.71	3.47	.68	3.86	.97	2.93	.05	2, 137
m. The number of other anglers on the lake	3.41	.80	3.37 ^a	.55	3.84 ^b	.72	6.67**	.10	2, 137
n. Other anglers' pets	3.12	.70	3.14	.63	3.35	.95	1.10	.02	2, 137
o. The behavior of other anglers	3.41	.71	3.44 ^a	.62	3.79 ^b	.86	3.29*	.05	2, 137
p. Opportunities for solitude	3.29 ^a	.85	3.66	.63	3.98 ^b	.74	6.15**	.10	2, 137
q. Lake cleanliness	3.24 ^a	1.15	3.68 ^a	.73	4.09 ^b	.78	7.36**	.11	2, 137
r. Area safety and security	3.24 ^a	1.09	3.71 ^a	.70	4.12 ^b	.76	8.24***	.12	2, 137

Note: Opposing superscripts indicate significant difference.

¹ Measured along a scale where 1=Extremely negative through 5=Extremely positive

Table 54, continued

Attribute	Segments (<i>M, SD</i>) ¹						<i>F</i>	η^2	df
	Indifferents		Moderates		Loyalists				
<i>Lake and area conditions</i>									
s. Restrooms/portable toilets at the lake	2.90	1.00	3.14	.91	3.29	1.15	1.12	.02	2, 135
t. Fresh water points at the lake	3.05	1.02	3.24	.80	3.51	.97	2.33	.03	2, 135
u. Weeds in the lake	3.38	.97	3.21 ^a	.71	3.65 ^b	.84	4.20*	.06	2, 135
v. Submerged obstacles	2.76	1.26	3.03	1.07	3.29	1.25	1.69	.02	2, 135
w. Fish habitat	3.57 ^a	1.08	3.77 ^a	.74	4.22 ^b	.64	7.16***	.10	2, 135
x. Number of fish in the lake	2.52 ^b	1.47	3.59 ^a	.94	4.14 ^c	.80	19.72** *	.23	2, 135
y. Size of fish	2.76 ^b	1.34	3.70 ^a	.84	4.22 ^c	.73	19.77** *	.23	2, 135
z. Species of fish	3.19 ^b	.93	3.80 ^a	.75	4.35 ^c	.52	21.69** *	.24	2, 135
aa. Fishing information available to anglers	3.10 ^b	1.18	3.65 ^a	.79	4.14 ^c	.75	12.05** *	.15	2, 135
bb. Safety instructions	2.90 ^b	1.00	3.64 ^a	.74	4.06 ^c	.81	15.41** *	.19	2, 135
<i>Management actions</i>									
cc. Visibility of rules and regulations	3.35 ^a	1.112	3.57 ^a	.84	4.04 ^b	.92	6.27**	.08	2, 151
dd. Number of rules and regulations	3.35 ^a	1.027	3.42 ^a	.72	3.96 ^b	.84	8.46***	.10	2, 151
ee. Clarity of rules and regulations	3.35 ^a	1.071	3.58	.77	3.87 ^b	.90	3.46*	.04	2, 151
ff. Number of rangers/management staff at the lake	3.04 ^a	1.147	3.28 ^a	.78	3.84 ^b	.88	9.33***	.11	2, 151
gg. Too few rangers/management staff at the lake	3.17	.984	2.80	.77	3.11	1.03	2.55	.03	2, 151
<i>Services</i>									
hh. Marinas	3.74	.75	3.85	.63	4.02	.83	1.49	.02	2, 156
ii. Lodging	3.17 ^b	.94	3.79 ^a	.72	4.13 ^c	.87	11.81** *	.13	2, 156
jj. Fishing supply stores	3.83	.78	3.76	.75	4.03	.93	1.87	.02	2, 156
kk. Availability of support services	3.43 ^a	.79	3.57 ^a	.72	3.90 ^b	.79	4.57*	.06	2, 156

Note: Opposing superscripts indicate significant difference.

¹ Measured along a scale where 1=Extremely negative through 5=Extremely positive

Findings in Table 54 are consistent with the findings reflected in Table 53. That is, *Loyalists* were most inclined to indicate that the various service attributes positively impacted their experience, whereas *Indifferents* tended to be less satisfied. Of the 35 items listed in Table 54, significant variations were observed on 25 attributes. The most substantial variation among segments was observed in the *Lake Area and*

Conditions domain. *Loyalists* were substantially more inclined than *Moderates* and *Indifferents* to indicate that the “number of fish in the lake” ($M=4.14$), “size of fish” ($M=4.22$), “species of fish” ($M=4.35$), “fishing information available to anglers” ($M=4.14$), and “safety instructions” ($M=4.06$) each positively influenced their experience in the SCC.

Summary for place attachment segments

Three market segments were identified that varied in their level of attachment to the SCC. These segments were titled *Indifferents*, *Moderates*, and *Loyalists*. *Indifferents* were the smallest segment and least attached to the SCC, followed by *Moderates* who displayed moderates level of attachment but were the largest segment. *Loyalists* were the most attached segment and constituted approximately a third of the sample. Little substantive variation was observed among the market segments with regard to their socio-demographic characteristics and decisions related to the timing (e.g., season) and choice of fishing location within the SCC. The most pronounced variation among the segments was reflected in their; (a) past use of the SCC, (b) evaluations of their experience, (c) thoughts and behaviors related to angling, and (d) evaluations of various service elements. *Loyalists* were generally the most satisfied consumers and indicated a stronger propensity to return to the SCC. This information is summarized in Table 55.

Additional statistical analysis of Santee Cooper data (see Appendix D) indicated that respondents' perceptions of the physical attributes were a significant contributor to their attachment to the lake system. Most attributes had a positive influence on respondents' attachment to the area with the exception of the item “restroom/portable toilets at the lake” which was a negative predictor of affective attachment.

Table 55. Summary of differences between place attachment segments for respondents who visited Santee Cooper region.

Variable	Segment (M)		
	Indifferents	Moderates	Loyalists
Socio-demographics	little difference	little difference	little difference
Visit frequency since first visit	lowest (49% making first visit; 20% 1-3 visits)	medium/low (33% first visit; 40% 1-3 visits)	highest (28% more than 20 visits; 17% between 11 and 20 visits)
Group composition	2-4 people	2-4 people	Similar, more likely to be self or more than 6 people
Use pattern for lakes	little difference	little difference	little difference
Overall satisfaction rating for experience	lowest (fair)	medium (good)	highest (very good)
1. Being outdoors and escaping the usual demands of life	lowest (agree)	high (agree/strongly agree)	highest (agree/strongly agree)
2. Content with the type of fish caught	lowest (disagree)	medium high (neutral)	highest (neutral/agree)
3. Happy with members of group and those around them	lowest (neutral/agree)	high (agree/strongly agree)	highest (strongly agree)
4. Trip to the SCC well worth the money	lowest (neutral)	medium (agree)	highest (agree/strongly agree)
5. Focused on angling experience	lowest (neutral/agree)	medium (agree/strongly agree)	highest (agree/strongly agree)
Overall satisfaction rating for lake attributes	lowest (most critical)	medium	highest (especially lake area and conditions)
Likelihood of return to area	low (unlikely/likely)	medium (likely)	high (likely/very likely)

Consumptive orientation segments

Consumptive orientation for recreational angling refers to “the degree to which an angler values the catch-related outcomes of the angling experience” (Sutton and Ditton, 2001, p. 52). The concept of consumptive orientation “recognizes that anglers have an array of motives for fishing and that they probably utilize different strategies for attaining preferred outcomes” (Aas & Kaltenborn, 1995, p. 752). Kyle, Norman, Jodice, Graefe and Marsinko (in review) analyzed consumptive orientation among the Santee Cooper survey respondents. Their analysis is summarized here to demonstrate potential target markets.

The analysis began with confirmatory factor analysis (Appendix E) of all responses to the consumptive orientation items (survey question D.11, see Appendix A). This confirmed existence of the four consumptive orientation dimensions originally defined by Graefe (1980):

- a. Catch Big Fish – reflecting anglers' desire to catch large fish (three items)
- b. No Catch – reflecting anglers' need to catch fish to attain experiential goals (three items)
- c. Catch Many Fish – reflecting anglers' desire to catch many fish (two items)
- d. Keep Catch – reflecting anglers' need to keep the fish they catch (two items)

Respondents were then sorted into groups or clusters that represent similar responses to survey items associated with the four consumptive orientation dimensions. The results demonstrate the existence of four angler groups (see Table 56 and 57) among Santee Cooper respondents. These groups essentially reflect high preference for one of the consumptive orientation dimensions described above.

1. *Lots of Fish*—Members of this group are distinguished by their strong preference for catching many fish. They also prefer catching large fish but indicated that fishing trips where no fish were caught are enjoyable. Lastly, they indicated that keeping their catch was not important (31.4% of respondents)
2. *Big Fish*—Members of this group expressed the strongest preference for catching big fish. They were ambivalent about not catching fish and catching many fish. Keeping their catch was not important (19.9% of respondents).
3. *Fun Time*—Members of this group strongly agreed with statements indicating that not catching fish was okay and has little impact on their angling experience. They also indicated that catching big fish, catching many fish, and keeping their catch were relatively unimportant in terms of their angling experience (28.2% of respondents).
4. *Keepers*—Members of this group have the strongest need to keep the fish caught. They also expressed a desire to catch big fish and catch many fish. They were indifferent concerning the possibility of not catching fish (20.6% of respondents).

Table 56. Consumptive orientation clusters for Santee Cooper survey. (Kyle , Norman, Jodice, Graefe, & Marsinko, in review).

Clusters (M^1 , SD)									
	1 Lots of Fish		2 Big Fish		3 Fun Time		4 Keepers		F
Catch Big Fish	3.66 ^a	.78	4.30 ^a	.58	2.81 ^a	.74	3.50 ^a	.89	63.38***
No Catch	3.58 ^a	.67	2.95 ^a	.73	4.18 ^a	.60	2.88 ^a	.69	82.22***
Catch Many Fish	4.24 ^a	.50	3.21 ^a	.68	2.54 ^a	.73	3.92 ^a	.71	156.50***
Keep Catch	1.54 ^a	.50	1.69 ^a	.60	1.56 ^a	.55	3.29 ^a	.65	204.06***
<i>n</i>	128		81		115		84		

Note. Like superscripts indicate significant difference.

¹Scale: 1= Strongly Disagree; 5 = Strongly Agree

*** $p < .001$

Table 57. Summary of consumptive orientation clusters for Santee Cooper survey.

Clusters				
	1 Lots of Fish	2 Big Fish	3 Fun Time	4 Keepers
<i>n</i>	128	81	115	84
Catch Big Fish	+	++	0	+
No Catch	+	0	++	0
Catch Many Fish	++	0	0	+
Keep Catch	-	-	-	++

¹Key: ++ = strong preference relative to other groups, + = preference, 0 = neutral, - = not important

Additional variables were evaluated relative to these consumptive orientation clusters and are summarized in Table 58. (Readers interested in the full description of the statistical analysis for these variables are referred to Kyle , Norman, Jodice, Graefe, & Marsinko, in review.)

- *Socio-demographics*

There was little variation across segments for the socio-demographic indicators measured by the survey. The only significant difference was for gender. Although the sample was predominantly male, *Keepers* had a slightly higher proportion of women than the other three segments.

- *Motivation*

Motivation was evaluated using a 25 of the items included in survey question D.15 (Appendix A). Items were evaluated using factor analysis which identified 5 major categories of motivations defined as follows:

- 1) *Escape*—desire to escape routine, relax, and enjoy nature;
- 2) *Experience*—activity-specific motives related to challenge, skill development, and angling success
- 3) *Privacy*—desire for solitude and isolation;
- 4) *Family*—desire to be with family; and
- 5) *Social*—desire to meet and socialize with others.

The consumptive orientation clusters can be further characterized using these dimensions (Table 58). *Lots of Fish* placed the greatest importance on *escape* and differed significantly from *Keepers* which placed the least importance on this dimension. *Lots of Fish* and *Big Fish* both placed significantly greater importance on *experience* than the *Fun Time* cluster which placed the lowest importance on experience. The *Lots of Fish* cluster also scored highest on the *privacy* dimension and was significantly higher than the *Keepers* cluster. The *Lots of Fish* cluster also scored highest on the *family* dimension and was significantly higher than the *Fun Time* cluster. Lastly, the *Fun Time* cluster scored highest on the *social* dimension and was significantly higher than the *Big Fish* cluster.

In summary, *Lot of Fish* was distinguished by placing the greatest importance on all motivations except for *social*. *Big Fish* were relatively similar to *Lots of Fish*, but are distinguished from by placing more importance on *experience* and less importance on *social* than *Fun Time*. *Keepers* is distinguished by placing less importance on *escape* and *privacy* than *Lots of Fish*, and more importance on *experience* than *Fun Time*.

- *Psychological Involvement*

Social-psychological involvement was evaluated using items in survey question D.12 (Appendix A) which used a modified involvement scale used by Kyle, Absher, Hammitt, and Cavin (2004 and adapted from McIntyre and Pigram (1992). Confirmatory factor analysis indicated existence of five involvement dimensions:

- 1) *Attraction*—refers to fishing as enjoyable, important and satisfying as an activity
- 2) *Centrality*—refers to fishing as playing a central role in one's life
- 3) *Social bonding*—extent to which social ties bond someone to fishing
- 4) *Identity affirmation*—the degree to which fishing provides opportunities to affirm the self to the self
- 5) *Identity expression*—the degree to which fishing provides opportunities to express the self to others

Both the *Lots of Fish* and *Keepers* clusters scored significantly higher than the *Fun Time* cluster for *centrality* and *identity expression*. The *Lots of Fish* cluster scored significantly higher than the *Keepers* cluster on *identity affirmation*.

- *Behavioral Involvement*

Behavioral involvement was measured by looking at days spent fishing in the last 12 months (freshwater, saltwater), years fishing, and respondents' self rating of their level of experience (survey questions D.1.a, D.1.b, D.3 and D.10—see Appendix A). The results are summarized in Table 58. In terms of respondents' behavioral involvement with angling, we observed variation between clusters on measures of their participation in freshwater angling over the past 12 months and their self-rated experience. On both measures, the *Lots of Fish*, *Big Fish*, and *Fun Time* clusters were significantly higher than the *Keepers* cluster. Although not statistically significant, *Big Fish* rated themselves as being the most experienced and spending the most days saltwater fishing; while *Fun Time* appears to have the most freshwater fishing days and years fishing.

- *Place Attachment and use history*

The consumptive clusters were examined for attachment to and experience with the Santee Cooper region. Evaluation included response to survey questions on place attachment. Attachment was measured using the 17 items designed to capture four dimensions (*place identity*, *place dependence*, *affective attachment*, *social bonding*) of consumers' attachment to the SCC (survey section C.2 ; see Appendix A). These are the same items used to identify the place attachment related market segments defined as *Indifferents*, *Moderates*, and *Loyalists*. Evaluation of consumptive clusters also included previous experience with Santee Cooper lakes (year of first visit, number of visits since first visit, number of days during last visit, and satisfaction with fishing during last visit). For place attachment dimensions, significant differences were observed for consumptive clusters on only the *place identity* and *affective attachment* dimensions. Specifically, the *Fun Time* cluster expressed stronger attachment than the *Big Fish* cluster. For the indicators of past experience, a similar pattern emerged. The *Fun Time* cluster expressed significantly higher satisfaction with their fishing experience compared to the *Big Fish* and *Keepers* clusters. The *Fun Time* cluster also expressed stronger intentions of returning than did the *Big Fish* and *Keepers* clusters. This pattern makes sense given the *Fun Time* cluster is less focused on actually catching fish when fishing, so they are less likely to be dissatisfied with the lower number of fish available during the extended drought period preceding the survey year.

Table 58. Summary comparison of variables for Santee Cooper survey consumptive orientation groups.

	Consumptive Clusters (Mean)			
	1 Lots of Fish	2 Big Fish	3 Fun Time	4 Keepers
% (N = 408)	31.4	19.9	28.2	20.6
Gender				Slightly higher proportion of women
<i>Motivation</i>				
Escape	Highest very important (4.07 ^a)	- very important (3.87)	- very important (3.99)	Lowest very important (3.78 ^a)
Experience	Highest moderately/ very important (3.51 ^a)	High moderately important (3.46 ^b)	Lowest moderately important (2.97 ^{ab})	Medium moderately important (3.14 ^a)
Privacy	Highest moderately important (3.28 ^a)	- moderately important (2.92)	- moderately important (3.16)	Lowest moderately important (2.81 ^a)
Family	Highest moderately important (3.06 ^a)	- moderately important (2.77)	Lowest moderately important (2.64 ^a)	- moderately important (2.89)
Social	- moderately important (3.33)	Lowest moderately important (3.17 ^a)	Highest moderately/ very important (3.68 ^a)	- moderately important (3.27)
<i>Involvement</i>				
Attraction	- agree (3.81)	- agree (3.71)	- agree (3.76)	- agree (3.60)
Centrality	Highest neutral (3.26 ^a)	- neutral (3.12)	Lowest neutral (2.96 ^{ab})	High neutral (3.23 ^b)
Social Bonding	- neutral (3.48)	- neutral (3.44)	- neutral (3.29)	- neutral (3.35)
Identity Affirmation	Highest neutral (3.49 ^a)	- neutral (3.45)	- neutral (3.39)	Lowest neutral (3.30 ^a)
Identity Expression	Highest agree (3.54 ^{ab})	- neutral (3.45)	Low neutral (3.20 ^a)	Lowest neutral (3.16 ^b)
<i>Behavior</i>				
Freshwater days (D.1.a)	More days than Keepers (53.03 ^a)	More days than Keepers (52.19 ^b)	Highest # days (55.24 ^c)	Least # days (26.64 ^{abc})
Saltwater days (D.1.b)	- (9.48)	Most days (13.00)	- (5.20)	- (5.62)

Consumptive Clusters (Mean)				
	1 Lots of Fish	2 Big Fish	3 Fun Time	4 Keepers
Years spent fishing (D.3)	- (38.51)	- (40.34)	Most years (42.38)	- (38.57)
Self-rated experience ¹ (D.10)	More expert than Keepers (3.46 ^a)	Most expert (3.71 ^b)	More expert than Keepers (3.45 ^c)	Least expert (3.14 ^{abc})
<i>Place Attachment</i>				
Place Identity	(3.14)	Weakest (2.87 ^a)	Strongest (3.30 ^a)	(3.20)
Place Dependence	(3.16)	(3.10)	(3.38)	(3.21)
Affective Attachment	(3.27)	Weakest attachment (3.21 ^a)	Strongest attachment (3.61 ^a)	3.40
Social Bonding	(3.57)	(3.63)	(3.89)	(3.57)
<i>Place experience*</i>				
% of cluster that previously visited SCC? (A.1) "yes"=248)	58.27%	64.56%	50.89%	65.06%
Year of first visit (A.4)	(1994)	(1991)	Earliest visit (1990)	(1992)
Number of visits since first visit (A.3)	(12.18)	(10.76)	Most visits (21.80)	(9.55)
Number of days at SCC most recent visit (A.5)	(3.67)	(3.98)	Most days (6.02)	(4.65)
Satisfaction with fishing experience at SCC (C.7)	- very good (3.62)	Least satisfied good (3.09 ^a)	Most satisfied very good (4.06 ^{ab})	Less satisfied good (3.35 ^b)
Likelihood of return (B.12)	Likely to return (2.12)	Likely to return (2.27 ^a)	Most likely to return (1.67 ^{ab})	<i>Least</i> likely to return (2.32 ^b)

Note. Like superscripts indicate statistically significant difference (at least $p < 0.05$)

*These items were only presented to those who had indicated previously visiting Santee Cooper Country.

Summary

In conclusion, we observed virtually no variation among clusters with regard to their socio-demographic characteristics. This finding indicates that prospective anglers' desire to catch, release, and consume fish is not related to their age, education, income, or place of residence. As noted earlier, these findings are consistent with earlier work across the nation. We also observed little variation in respondents' attachment to the study area and their previous experience with the

resource. Given that past work has shown that setting attachment is often driven by activity involvement and participation rates, we anticipated that the clusters' use and attachment to the Santee Cooper lakes system would follow a similar pattern to that observed for our indicators of behavioral and social-psychological involvement. These data illustrated this not to be so.

Overall, respondents' attachment to the setting was somewhat modest (i.e., means falling slightly above "neutral") with very little variation among clusters. Respondents' use history of the area, a variable that has previously been shown to influence place attachment, also varied little among the clusters. While the Santee Cooper lakes system supports a range of fish species along with services to cater for a variety of experience types (e.g., guides, charter vessels, accommodation styles), we anticipated that styles of angling would be more closely tied to types of attachment. For example, if the Santee Cooper lakes were an excellent setting for catching large fish or many fish, then we'd expect to see higher place dependence scores for these clusters.

With regard to observed variations among the identified clusters, the following is a summary profile for each cluster.

- *Lots of Fish*—Members distinguished themselves by their strong preference for catching many fish. With regard to this cluster's motivation for angling, respondents' also scored highest on four of the five motivation dimensions. These included the *escape*, *experience*, *privacy*, and *family* dimensions. Consistent with their motivation scores, the *Lots of Fish* cluster reported the strongest social-psychological involvement with angling – also scoring highest on all dimensions. While they reported relatively high participation rates and rated themselves as somewhat "experienced," their scores on these indicators were not significantly higher than most of the other clusters. Similarly, while their score on our indicator of satisfaction suggests that they were content and would likely return, these means were not significantly higher or lower than other clusters.
- *Big Fish*—Members were most concerned with catching large fish. Like the *Lots of Fish* cluster, they also scored comparatively high on the *experience* dimension of motivation which included items that focus on activity-specific elements. They were also the least concerned of all the segments with regard to *social* elements (i.e., to share their angling experience with others). In terms of their social-psychological involvement with angling, the *Big Fish* cluster scored comparatively high on each of the dimensions – second to the *Lots of Fish* cluster. The *Big Fish* cluster did, however, score highest on our subjective indicator of experience. Lastly, they scored lowest on the *affective attachment* and *place identity* dimensions of place attachment, reported the lowest satisfaction score of all clusters, and were somewhat ambivalent about returning.

- *Fun Time*—These individuals were the least concerned. in comparison to those in all other clusters, with catching and consuming fish. As reflected in their scores on the motivation dimensions, elements not specific to angling were of most importance. They indicated that the *escape, privacy, and social* elements were comparatively important factors that drove their engagement with angling. Alternately, they scored lowest of all the clusters on the *experience* dimension. Compared to the other dimensions, their scores on the social-psychological involvement dimensions were also comparatively low. The *Fun Time* cluster, however, did score highest on the *affective attachment* and *place identity* dimensions of place attachment. Lastly, they expressed the strongest level of satisfaction with their fishing experience of all the clusters and were the most likely to return.
- *Keepers*—Members were most concerned with keeping their catch. While their scores on the dimensions of motivation were the lowest of all the clusters, their scores on the dimensions social-psychological involvement and place attachment were comparatively moderate. This segment, however, did indicate fishing least often and rated themselves the least experienced anglers. They were moderately satisfied with their angling experience but, of the four clusters, they indicated being least likely to return to the Santee Cooper lakes system.

3.7 Comparison to other SC state level data

Comparison of Figures 7 and 8 demonstrates a similar pattern between angling hours of Santee Cooper 2004 survey respondents and results from 2001/2002 SCDNR creel survey (White and Lamprecht, 2002).

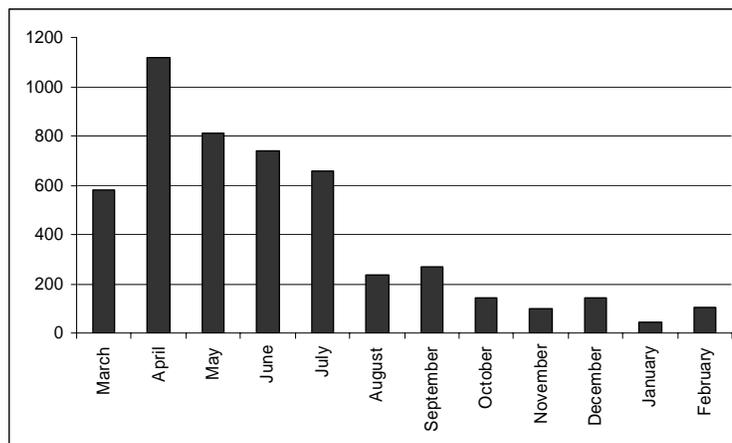


Figure 7. Our Santee Cooper 2004 survey respondents—total angling hours in month of most recent visit to lakes Marion and Moultrie.

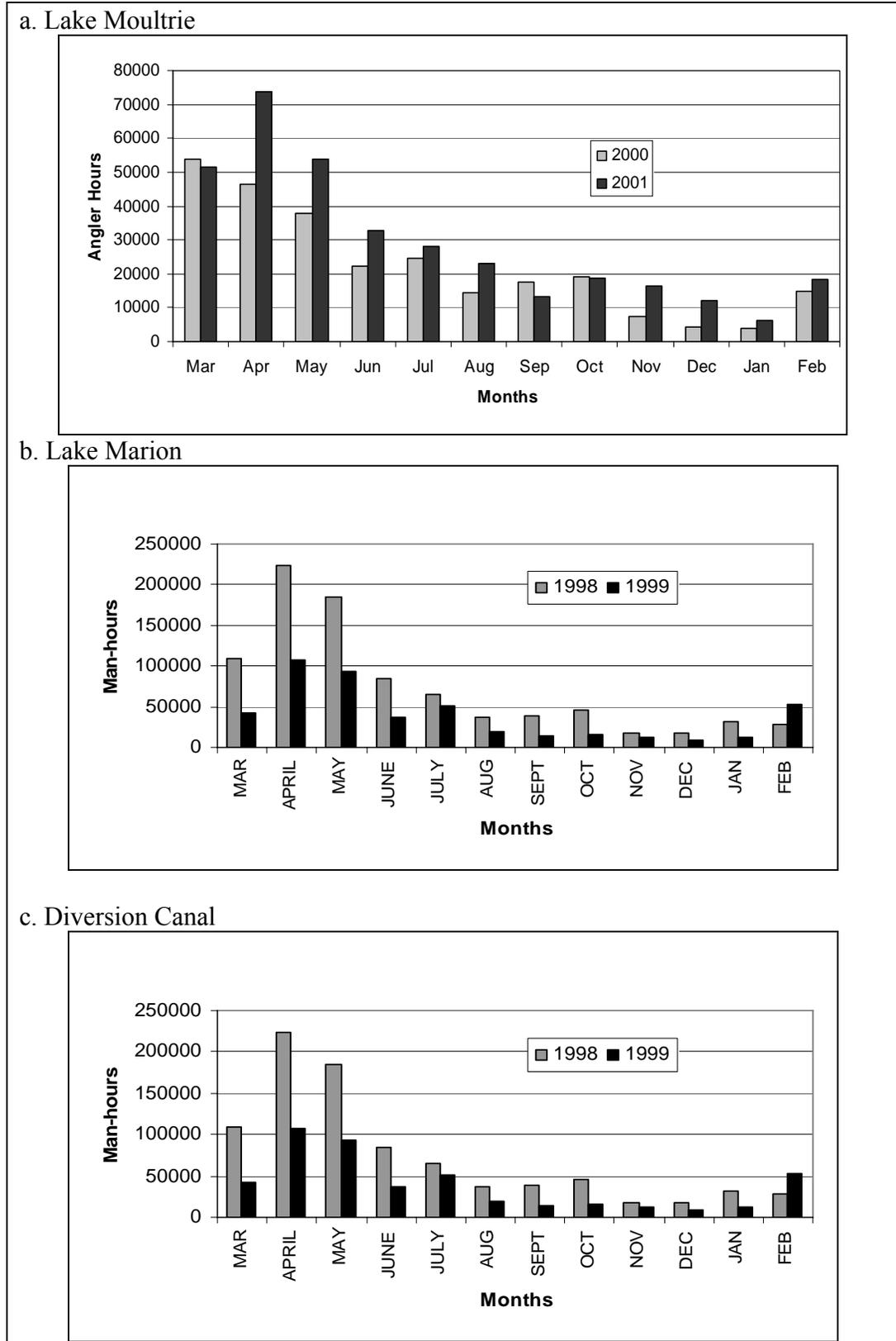


Figure 8. Monthly fishing effort estimates for Santee Cooper lakes expressed in angler hours (source: White and Lamprecht 2002).

4. Marketing Recommendations

Consistent with the Santee Cooper Country's (SCC) mission, this project was designed to improve the region's ability to attract repeat and new angling tourists and their families, specifically, non-resident anglers from out-of-state and resident anglers from outside the Santee Cooper region. In the long term, a well informed promotional strategy will assure that marketing efforts contribute to strengthening the resilience of the Santee Cooper regional recreational fishing and boating economy.

To efficiently and effectively target potential visitors to the Santee Cooper region, it is important to first understand visitor attitudes and behaviors related to boating and fishing in addition their media consumption. Therefore, marketing recommendations (noted in *italics*) were developed from the survey data and are based on the characteristics of visitors, a comparison of visitors with non-visitors, and results of segmentation analysis with regard to place attachment and consumptive orientation.

4.1 Santee Cooper Country Visitors

This section focuses on those 248 survey respondents (59.0%) who indicated that they have visited Santee Cooper Country. It is important to remember that the survey sample was drawn from inquirers and South Carolina residents are less likely to request information from Santee Cooper Country because they are likely more familiar with the region.

Non-Residents

Nearly 84.0% of visitors to Santee Cooper Country did not reside in South Carolina. One-third of all visitors were from states adjacent to South Carolina, with the highest portion of visitors coming from North Carolina (23% of all visitors). *The primary focus of out-of-state marketing should be in North Carolina followed by Pennsylvania, Virginia, Georgia, Ohio and West Virginia.*

Season

The majority of visitors visit Santee Cooper Country March through July. *The shoulder seasons August, September and October should be targeted to extend the season.*

Family Destination

Visitors to Santee Cooper stayed on average five days, were in a group of four people consisting of family and friends, stayed in a hotel, motel, camp ground or cabin/condo and fishing was their primary purpose for visiting. Over one-half of the visitors reported that the most enjoyable aspect of their visit to Santee Cooper Country was the fishing, followed by the setting/scenery and the opportunity to relax. *The marketing of the Santee Cooper Country should include the portrayal of a family friendly fishing vacation destination in tourist promotional media.*

Information sources

The most popular sources of information was word-of-mouth and past experience, brochures, the Internet, and magazines. *Providing high levels of customer service is important to increasing positive word-of-mouth advertising. This can be accomplished through employee training programs run in collaboration with Santee Cooper Country's county partners.*

Non-Anglers

In addition to fishing and boating, visitors to Santee Cooper Country also participated in watching wildlife, pleasure driving, shopping for gifts, swimming and sunbathing and visiting historical sites. *As a result, recreational, shopping and historical opportunities for non-anglers should be included in marketing materials.*

Anglers

Lake Marion was the most popular site within Santee Cooper Country and catfish, bass and crappie were the three most popular species caught by visitors. A portion of the fishermen are flexible in their fishing location preferences. *Marketing of the fishing opportunities and experiences at Lake Moultrie and the Diversion Canal could be emphasized during the heavy fishing periods during the summer. It may be necessary to determine how important access, navigation issues, quality of fishing, or provision of services are to location preferences for fishing and other aquatic recreation activities.*

People who fish are also willing to engage in other activities at Santee Cooper. *Santee Cooper should consider or continue marketing alternative activities to fishermen while at the same time marketing fishing opportunities to other recreationists (such as golfers).*

Trip planning

The majority of visitors who planned to fish as a primary or secondary activity at Santee Cooper, actually fished. That is a good sign. However, few visitors who did not plan to fish at Santee Cooper actually fished (that is, they did not change their mind once they were at the destination). Given that the survey sample was drawn from those who inquired about fishing at Santee Cooper, it is perhaps surprising that some individuals did not plan to fish or that not all visitors fished.

Santee Cooper promotion should include enhancement of information about recreational fishing opportunities in trip planning literature and on the website (improvements have occurred since 2004). Area guides and marinas should also be sure to provide services and information suitable to enticing first time visitors or repeat visitors (who usually engage in golf and other regional activities) to fishing activities once they are at the destination. Examples include providing fishing gear and boat rentals or placing discounted guide trip coupons in information packets mailed to those who inquire about non-fishing activities.

Services

The least liked aspects of the visit were the fishing conditions and weather. This was followed by the area services. *Educational information about the lakes and seasonal weather information should be provided by Santee Cooper Country and its partners. In addition, because of the importance of word-of-mouth and past experiences, a conscientious effort to assess the opportunities for rental boats, restaurants, and guide services should be addressed.*

Guides

One out of three Santee Cooper Country visitors used a fishing guide or charter on their most recent trip to the region. Overall, the rating of the guide service was very good and visitors that used a guide felt less crowded than those visitors who did not.

Future marketing endeavors should highlight the positive reputation of guides in the region and Santee Cooper Country and their partners should make an extra effort to communicate the guide and charter opportunities in the region. The Guide Association may want to establish a quality assurance certification for guides in the region. More and more guides are developing websites to advertise their services. These individuals might benefit from training in website design and related marketing techniques. Because of the importance of word-of-mouth and past experience, websites should include customer reviews when possible.

Lake attributes

Respondents were asked to evaluate several lake attributes based on their previous experiences in the region. Ratings of all attributes were positive. The lowest ranked attributes included 1) other activities taking place on the lakes, 2) number of fish in the lake, 3) restrooms/toilets, 4) weeds in the lake, 5) submerged obstacles in the lake, and 6) too few rangers/management staff.

In an effort to maximize word-of-mouth, these issues have to be addressed through improved information and communication about events going on the lakes, where to find restrooms and toilets and the presence of underwater obstructions. Improved and continued dialogue with the South Carolina Department of Natural Resources is also encouraged to address the fish stocking and weeds as well as the visibility issues.

Satisfaction assessment

On an overall satisfaction scale of 1=poor, 2=fair, 3=good, 4=very good, 5=excellent and 6=perfect, visitors rated the Santee Cooper Country region 3.6. *This figure should be treated as a baseline and incorporated into all future research to determine the direction of the visitor's satisfaction with their visit to the region. Satisfaction items (Table 10-14) could also be used as performance indicators.*

Repeat visitors

On a scale of 1=very likely, 2=likely, 3=unlikely, 4=very unlikely, and 5=no chance, visitors to Santee Cooper Country were asked about their likelihood of

visiting the area in the next 12 months. Visitors' average score was 2.1, indicating that they are generally likely to return in 12 months. *However, it is recommended that Santee Cooper Country, its partners and members develop a "relationship" with these visitors to ensure their return. This could be done through the development of a detailed data base and corresponding promotional email and mailing campaign. These visitors should also be targeted for shoulder season and off-season when the fishing success is good and pressure is low.*

Respondents who fished during their most recent trip were asked to rank their familiarity with and attachment to the Santee Cooper region on a scale of 1 (Not at all) to 9 (Extremely). The mean was slightly below the neutral point on the scale for both familiarity (4.9) and attachment (4.5). *The marketing implications of this finding is that Santee Cooper Country needs to improve the quality of its information to help the customer with their lack of familiarity with the region, and thereby reduce the risks associated with returning.*

With respect to attachment, further market segmentation analysis is presented below.

4.2 Visitors vs. Non-visitors

This section summarizes fishing related behavior and preferences for all survey respondents (visitors and non-visitors to Santee Cooper Country). This information can be useful in comparing visitors and non-visitors, with the objective that Santee Cooper Country and its partners may develop marketing strategies targeted at attracting non-visitors and retaining and increasing visitors.

Freshwater fishing

The survey sample was selected based on inquiry about freshwater fishing in the Santee Cooper lakes. Both visitors and non-visitors are generally freshwater fishermen. However, visitors are more likely to participate in saltwater angling than non-visitors. This interesting finding indicates that those inquirers who focus on freshwater fishing may not be selecting Santee Cooper for their freshwater fishing trip. *Marketing recommendations based on this finding are two-fold. Santee Cooper Country needs to target freshwater fishing media to encourage non-visitors to visit as well as media that targets both freshwater and saltwater anglers to attract more of their current customers.*

Number of fishing days

The study also found that non-visitors fish in freshwater during the summer season for a significantly higher number of days than visitors. *Marketing should focus on increasing the awareness of Santee Cooper Country as a summer destination and getting the area included in the "decision set" (i.e., those possible places that anglers consider for a fishing trip) of freshwater anglers.*

Experience level

Visitors and Non-visitors to Santee Cooper Country were similar in their level of fishing experience (i.e., a mean of 3.5 on a scale of 1=novice to 5=expert) and the number of years they have been fishing (i.e., mean of 39.7 years). *Marketing the area as a family destination assures that early fishing experiences of youth and adult novices are associated with the Santee Cooper region. Developing fishing specialized learning opportunities (e.g., through guide service) for novices may be useful to attracting less-experienced anglers.*

Club membership

While not significant, non-visitors (30.2%) were more likely to be a member of a fishing club than visitors (21.9%). *Fishing clubs may be an opportunity for direct marketing.*

Magazine subscription

Survey results revealed that over one-half of visitors (50.9%) and non-visitors (55.9%) subscribed to fishing magazines. However, non-visitors subscribe to more magazines. *BASS/Bassmasters* and *IN-Fisherman* were the two most popular magazines for both groups. While non-visitors also subscribed to *North American Fishing Club* and *Bassin'* magazines at a higher proportion than visitors. *It is our recommendation that Santee Cooper Country focus on these four magazines with a combination of placing advertisements as well as getting stories written in the magazines. Other research at Clemson University has found that the placement of an advertisement after the appearance of a press release or story significantly increases the impact of an ad only. It is recommended that Santee Cooper Country hire a writer to do a series of articles on the region and have them placed in these in these magazines along with advertising that reflects the Santee Cooper region as described by respondents in this survey.*

Tournament anglers

Interestingly, non-visitors who fish in tournaments do so at a much higher rate than visitors. *Santee Cooper Country and current and future partners may want to develop additional tournament opportunities to attract those non-visitors to the region. However, because current fisherman indicated that they felt that there was a lot going on at the lakes, timing of tournaments is critical to prevent alienation of current non-tournament customers.*

Boat use

There is a significant relationship between whether someone visited and whether they fish from boat or shore. Visitors were more likely than non-visitors to own a boat and to fish from shore and a boat. *These findings suggest that additional information and communications about boat rental and guide service opportunities, as well as places to fish from shore, should be provided.*

Catch motives

In general, the top motives for fishing among all respondents are relaxation, getting away from the regular routine and to be outdoors. This finding is similar to results from comparable studies for recreational anglers. For Santee Cooper Country, visitors are more motivated by anticipation of the catch than non-visitors. However, research also found that visitors were slightly more interested than non-visitors in keeping their catch. In addition, testing one's equipment is less important to visitors than it is to non-visitors. *The marketing focus for Santee Cooper Country should be on maintaining and enhancing the travel experience for visitors. To attract non-visitors, the marketing strategy should focus less on catching fish to keep and more on the combined experience of catching fish and spending time on the water. To market Santee Cooper Country as a fishing destination, the message and corresponding images must strike the proper balance between the "experience", "the catch" and "the challenge."*

While the most preferred type of fish to catch was bass for all respondents, there was a significant relationship between whether someone visited and the type of fish they prefer to target. In particular, non-visitors were more likely than visitors to prefer bass (striped, largemouth) and visitors are more likely than non-visitors to prefer catfish. *The communication about opportunities to catch both catfish and bass is critical in maintaining and enhancing the current visitor market. However, if the goal is to increase non-visitors, the focus should either be on bass or on persuading bass fishermen to develop their interest in catfish.*

Demographics

Among survey respondents, there was no significant difference between visitors and non-visitors with regard to gender, age, race, and education level. Most visitors are white. Average age of visitors is 53.9 and for non-visitors was 54.1. Over one-half of visitors and non-visitors have an average household income above \$50,000. Regarding the number of weeks of vacation taken in 2003, there is no significant difference between visitors (n=214; mean = 6.2 weeks) and non-visitors (n=140; mean = 8.0 weeks). While demographic information is important in profiling and understanding your customer, they are typically poor predictors in behavior. It was not surprising that visitors did not differ from non-visitors.

However, there were a few interesting findings with respect to demographics and fishing. For non-visitors, the mean age for those who prefer "catfish" is significantly lower than for those who prefer "other" fish. Otherwise, there is no significant difference in the mean age of respondents between fish preference groups within the visitor or non-visitor segments.

The study also showed a significant relationship between income (above or below \$50K) and boat ownership for non-visitors but no significant relationship for visitors. There is no significant relationship for age and boat ownership for visitors or non-visitors. Therefore, boat ownership and use preferences among fishermen at Santee Cooper are likely related to other factors besides income or age.

Because demographics indicate that respondents are primarily in their 50s, marketing should target both younger (recruiting visitors) and older (retaining visitors) age groups relative to fishing preferences and needs. The RBF "Take me fishing" marketing campaign, which encourages older generations to introduce younger generations to recreational fishing and boating, is an appropriate approach for the Santee Cooper region. Santee Cooper should consider developing a similar marketing campaign in association with the shore and boat-based fishing and other boating opportunities available in the region relative to the habitats and conditions of Lake Marion, Lake Moultrie and the Diversion Canal.

4.3 Market Segmentation

Market segmentation analysis provides a valuable means for identifying target markets. This section uses market segmentation to define segments relative to respondent's attachment to the Santee Cooper Country region and their orientation regarding the consumption of fish.

Recommendations related to attachment to Santee Cooper Country

Marketing recommendations in this section are based on findings regarding distinct market segments that were identified based on respondents' attachment to the Santee Cooper Country. The rationale for this approach was the need to characterize respondents relative to potential for repeat visits to the region. As a reminder, respondents were grouped into three homogenous segments based on their scores on four dimensions of attachment to the Santee Cooper Country (*place identity, place dependence, affective attachment and social bonding*). The three segment solution that best fit our decision criteria resulted in the following segments *Moderates, Indifferents, and Loyalists*. The pattern of the attachment scores for these segments reflected a linear pattern of low to high. *Indifferents* scored lowest on all dimensions of attachment, followed by *Moderates* scoring slightly above "neutral," and then *Loyalists* who scored highest on all dimensions of attachment. *Moderates* were the largest segment consisting of just under half of the sample (48.8%), followed by *Loyalists* (34.3%), and then *Indifferents* (17.1%).

- *Demographics*
Little significant variation was observed among the segments in terms of respondents' socio-demographic characteristics. These results support recent evidence suggesting that socio-demographic characteristics are a poor segmentation base given that leisure preferences often transcend leisure preferences.
- *Past use history*
The only notable variation among segments in past use history was reflected in consumers' subsequent visitation following their first visit to Santee Cooper. *Loyalists* were the most frequent visitors (28% had more than 20 visits and another 17% had between 11 and 20 visits since their first visit) followed by *Moderates* (40% had 1-3 visits) and then *Indifferents* (49% were making their

first visit). *This finding indicates the importance of targeting the Santee Cooper Country's loyal customers through a combination of relationship building and excellent customer service. It also represents the challenge of converting Moderates to Loyalists due to the large size of the Moderates segment.*

- *Group composition*

Significant variation was observed among segments with regard to the composition of respondents' groups on their last visit. While the group composition of *Moderates* and *Indifferents* were relatively similar (i.e., between two to four people), *Loyalists* were slightly more inclined to indicate visiting on their own (11.76%) or visiting in a large group of more than six people (14.71%). *The promotion of accommodations that can handle larger groups is needed to reach the Loyalists.*

- *Fishing location*

In terms of preferred angling locations, angling duration, and seasonal use, there was little variation across segments with regard to their choice of angling locations based on where they fished in the Santee Cooper Country. Consistent with the finding that segments do not substantively differ in terms of their choice of angling locations, segments also did not differ in their seasonal use of the lakes and diversion canal.

- *Recent visit evaluation*

Respondents were requested to evaluate their experience on their most recent visit to the Santee Cooper Country. For the three segments, *Loyalists* rated the overall experience highest, followed by *Moderates* and then *Indifferents*. *Loyalists* are the most likely to return to the Santee Cooper Country followed by *Moderates* and then *Indifferents*. Of the 19 items exploring various experience elements, variations were observed on 14 items. These findings illustrated that *Loyalists*:

- Most enjoyed their fishing trip and experience in the Santee Cooper Country.
- Were happier to be outdoors and escaping the usual demands of life.
- Were most content with the type of fish caught.
- Were happiest with members of their group and those around them.
- Considered their trip to the Santee Cooper Country to be well worth the money they spent.
- Were more focused on their angling experience.
- Were most likely to return.

Given that almost half of the *Indifferents* were answering the survey after their first visit, the relatively lower rating by *Indifferents* may be an important indicator that the first few visits are not resulting in a satisfactory rating for the Santee Cooper experience. This finding reflects that marketing is more than just getting people to visit. *Santee Cooper should place emphasis on ensuring that*

the visitor has a high quality experience. This can be addressed through improved service quality and employee training.

- *Service attributes*

Respondents were also asked to evaluate the effect of various service attributes on their experience for their last visit to the Santee Cooper Country. We used 35 items to explore five areas of service delivery; *Lake and Ramp Access, Impact of Other Users, Lake Area and Conditions, Management Actions, and Services*. *Loyalists* were most inclined to indicate that the various service attributes positively impacted their experience, whereas *Indifferents* tended to be more critical. Of the 35 items, significant variations were observed on 25 attributes. The most substantial variation among segments was observed in the *Lake Area and Conditions* domain. *Loyalists* were substantially more inclined than *Moderates* and *Indifferents* to indicate that the “number of fish in the lake” ($M=4.1$), “size of fish” ($M=4.2$), “species of fish” ($M=4.4$), “fishing information available to anglers” ($M=4.1$), and “safety instructions” ($M=4.1$) each positively influenced their experience in the Santee Cooper Country.

These findings reveal the challenge that Santee Cooper Country has in reaching new markets such as the *Indifferents* who have fished at many other places and are comparing the attributes of Santee Cooper Country with other locations. *A tourism communication strategy is needed for visitors once they arrive in addition to a marketing campaign to get them to visit Santee Cooper Country. It is also recommended that a team of tourism professionals from Santee Cooper Country visit other well known freshwater fishing destinations to compare the attributes of that region with Santee Cooper Country. We then recommend that a series of focus groups be held with first time visitors to Santee Cooper Country to identify how the area could be improved.*

- *Importance of physical attributes*

Place attachment segmentation data indicated that physical attributes were a contributor to place bonding with the Santee Cooper lake system (Appendix D). In general, the physical attributes that comprise recreation settings have the potential to contribute to the bonds recreationists share with the setting. Although there is also social influence on informants' perceptions of the attributes and their experience, it is clear that the physical characteristics of the setting need also to be considered. Other work has shown that meanings change in congruence with changes in the physical setting. For example, Relph (1976) noted that a place identity is maintained only as long as it plausible. It may become implausible if changing conditions make it inadequate for its primary purpose. For example, change can make the environment inadequate if it is no longer able to support customary ways of socializing and interacting (Milligan 1998).

Although ratings of all attributes were positive when averaged for all Santee Cooper respondents who were visitors (Table 38), the lowest rank attributes included

- Other activities taking place on the lakes
- Number of fish in the lake
- Restrooms/toilets
- Weeds in the lake
- Submerged obstacles in the lake,
- Too few rangers/management staff

In addition, *Indifferents* rated the following lake attributes significantly more negatively than *Loyalists*:

- Parking near the ramps
- Lake access by vehicle
- Number of ramps
- Opportunities for solitude
- Safety and security of the area
- The cleanliness of the lake
- The number of other anglers along the shore
- Fish habitat
- Species of fish
- Fishing information available to anglers
- Safety instructions
- *Number of fish in the lake (most negative rating)*
- *Too few rangers/management staff at the lake*
- Availability of support services
- Lodging

Given that *Indifferents* had the lowest visit frequency (49% making first visit; 20% 1-3 visits), their ratings represent some of the first impressions that visitors have of the region.

Given that attached recreationists are more likely to be advocates for resource preservation, the cultivation of place bonds could also be considered a positive for managers of recreation resources. These findings suggest that attention to the agency's resources can be an important element supporting the development of these bonds. Therefore, if Santee Cooper and area resource managers want to increase the number of Loyalists, one strategy would be to maintain attributes Loyalists ranked high and enhance attributes that received low ratings, particularly by Indifferents.

Consumptive Orientation Segmentation

Marketing recommendations in this section are based on segmenting of Santee Cooper respondents based on responses to survey items associated with the four consumptive orientation dimensions—*Catch Big Fish, No Catch, Catch Many Fish*

and *Keep Catch*. The results demonstrate the existence of four angler groups among Santee Cooper respondents—*Lots of Fish* (31.4%), *Big Fish* (19.9%), *Fun Time* (28.2%), and *Keepers* (20.6%).

- *Demographics*

There was little variation across segments for the demographic indicators measured by the survey. The only significant difference was for gender. Although the sample was predominantly male, *Keepers* had a slightly higher proportion of women than the other three segments. Once again, demographic variables were poor predictors of a market. *The advantage of this finding is that Santee Cooper Country does not have to focus on different media based on demographic differences of the readership or viewing.*

- *Motivation*

Factor analysis of 25 motivation items revealed five major categories of motivations—*Escape, Experience, Privacy, Family, and Social*. The consumptive orientation clusters were further characterized using these dimensions. This analysis reveals the importance of motives for traveling and that not all visitors have are seeking the similar benefits. For example, *Lots of Fish* was distinguished by placing the greatest importance on all motivations except for *social*. *Big Fish* were relatively similar to *Lots of Fish*, but are distinguished from by placing more importance on *experience* and less importance on *social* than *Fun Time*. *Keepers* were distinguished by placing less importance on *escape* and *privacy* than *Lots of Fish*, and more importance on *experience* than *Fun Time*. *The appropriate motivations for the respective market segments must be incorporated into the images and text of the marketing media.*

- *Involvement*

There are some differences between segments regarding social-psychological and behavioral involvement. Social-psychological involvement was evaluated using items in a modified involvement scale, and analysis identified five involvement dimensions—*Attraction, Centrality, Social bonding, Identity affirmation, and Identity expression*. Both the *Lots of Fish* and *Keepers* clusters scored significantly higher than the *Fun Time* cluster for *centrality* and *identity expression*. The *Lots of Fish* cluster scored significantly higher than the *Keepers* cluster on *identity affirmation*. Behavioral involvement was measured by looking at days spent fishing in the last 12 months (freshwater, saltwater), years fishing, and respondents' self rating of their level of experience. With regard to participation in freshwater angling over the past 12 months and their self-rated experience, the *Lots of Fish, Big Fish, and Fun Time* clusters were significantly higher than the *Keepers* cluster.

How involved the consumer is with an activity has become a central tenant of leisure travel marketing. Santee Cooper Country needs to develop a differentiated marketing strategy that targets three markets: Lots of Fish, Big

Fish, and Fun Time clusters. It is up to Santee Cooper Country to communicate in its marketing materials the appropriate level of involvement for the target market. For example, the message for the Lots of Fish segment should emphasize the importance of fishing to the individual and how that catching lots of fish can be accomplished if they visit Santee Cooper Country (particularly for individuals interested in catfish).

- *Place attachment*

The consumptive clusters were examined for 1) attachment to based on 17 items designed to capture four dimensions (*place identity, place dependence, affective attachment, social bonding*) of consumers' attachment to the Santee Cooper Country and 2) previous experience with Santee Cooper lakes (year of first visit, number of visits since first visit, number of days during last visit, and satisfaction with fishing during last visit). Significant differences were observed for consumptive clusters on only the *place identity* and *affective attachment* dimensions. The emerging pattern suggested that the *Fun Time* cluster has the strongest level of place attachment, is less focused on actually catching fish when fishing and less likely to be dissatisfied with the lower number of fish available during the extended drought period proceeding the survey year. *This suggests there is a target market that enjoys aspects of the Santee Cooper fishing and recreational experience beyond actually catching fish.*

Conclusions

These findings have utility for both resource managers and those working to market angling destinations. In the context of the Santee Cooper lakes system, the SCDNR manages the fishery to accommodate a broad range of angling interests. This is evidenced in the variety of species available and their efforts to maintain a suitable habitat (e.g., fallen tress, live cypress trees). Their efforts have ensured that the Santee Cooper lakes system will appeal to a diverse group of anglers; from those who hope to catch a "trophy" fish through to those who seek other non-angling experience elements. The variations observed with regard to anglers' motivation, social-psychological involvement, and place attachment, also suggest that anglers seek different things from the activity. The benefits offered through angling participation, however, are not uniform. For some, these benefits support a lifelong interest, whereas for others angling is simply a passive interest. As we noted earlier, past research has shown that the intensity and type of social-psychological involvement often shapes how recreationists' feel about the resource and their preferences related to the management of the resource.

With regard to these findings' implications for destination marketing, we suggest that anglers' consumptive orientation and other motives can also provide a platform for developing media to market angling destinations to prospective tourists. Ditton, Holland, and Anderson (2002) recently documented the significance of angling tourism in terms of its economic impact and number of anglers traveling interstate to angling destinations. The Santee Cooper lake system is an exemplar of the extent to which anglers will travel to enjoy world class fishing. Within our sample, less than 14 percent (13.7%) of anglers

were from South Carolina. Opportunities to catch trophy fish, share time with family, and enjoy nature are all tangible benefits that will appeal to anglers. As destinations compete for angling tourists, communities dependent on angling-based industries will need to more aggressively promote their destinations. The attributes reflected in consumptive orientation and recreation experience preference scales reflect identifiable benefits which appeal to a variety of market segments.

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APPENDIX A: 2004 Santee Cooper Country Survey

santee cooper country Visitor survey

Conducted by Clemson University

in cooperation with

The Recreational Boating and Fishing Foundation and
Santee Cooper Country

SECTION A: VISITATION TO SANTEE COOPER COUNTRY

Santee Cooper Country in South Carolina refers to the five counties (i.e., Berkeley, Calhoun, Clarendon, Orangeburg, Sumter) surrounding Lake Marion and Lake Moultrie including the Diversion Canal connecting the two lakes.

1. Have you ever visited the Santee Cooper Country in South Carolina? *(Please check the appropriate box)*
 Yes No *(If "No," skip to Section D on page 8)*

2. In what year did you make your first visit? _____

3. How many visits to Santee Cooper Country have you made since your first visit? _____

4. What was the month and year of your most recent visit to Santee Cooper Country?

Month: _____ Year: _____

Please answer questions 5 through 12 in terms of YOUR MOST RECENT to Santee Cooper Country.

5. How many days did you stay on your most recent visit to Santee Cooper Country? _____ Days

a. If an overnight visit, what type of accommodations did you use? (Please describe below)

6. Including yourself, how many people were in your group on your most recent visit? _____

7. Which of the following best describes the composition of your group on your most recent visit? (Please check all that apply)

- Alone Family Friends Business associates
 Other, please specify _____

8. Who, among your group, decided on Santee Cooper Country as a destination? (Check only one)

- Self Spouse Children Parent(s)
 Sibling Friend Business associate Employer
 Other (please specify) _____

9. Who planned the trip? (Please check all that apply)

- Self Spouse Children Parent(s)
 Sibling Friend Business associate Employer
 Employee Travel agent
 Other (please specify) _____

10. What was your primary source of travel information for Santee Cooper Country?

11. Which of the following activities did you participate in on your most recent trip to the Santee Cooper Country? (Please check all that apply)

- | | | |
|--------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------|
| <input type="checkbox"/> Walking for pleasure/exercise | <input type="checkbox"/> Beach swimming/sunbathing | <input type="checkbox"/> Attending a live theater/music show |
| <input type="checkbox"/> Hiking | <input type="checkbox"/> Pool swimming | <input type="checkbox"/> Visiting an amusement park |
| <input type="checkbox"/> Horseback riding | <input type="checkbox"/> Waterskiing | <input type="checkbox"/> Visiting an aquarium |
| <input type="checkbox"/> Watching wildlife | <input type="checkbox"/> Attending outdoor sporting event | <input type="checkbox"/> Visiting a museum |
| <input type="checkbox"/> Bird watching | <input type="checkbox"/> Motor boating | <input type="checkbox"/> Visiting an unusual natural feature |
| <input type="checkbox"/> Golfing | <input type="checkbox"/> Gift shopping | <input type="checkbox"/> Visiting historical sites |
| <input type="checkbox"/> Camping | <input type="checkbox"/> Jet skiing | <input type="checkbox"/> Visiting historical homes |
| <input type="checkbox"/> Purchasing local crafts | <input type="checkbox"/> Canoeing, kayaking, | <input type="checkbox"/> Visiting local cultural sites |
| <input type="checkbox"/> Purchasing local works of art | <input type="checkbox"/> Sail boarding/windsurfing | <input type="checkbox"/> Guided nature tour |
| <input type="checkbox"/> Visiting a farmer's market | <input type="checkbox"/> Sailing | <input type="checkbox"/> Guided historical tour |
| <input type="checkbox"/> Pleasure driving | <input type="checkbox"/> Picnicking | <input type="checkbox"/> Carriage tour |
| <input type="checkbox"/> Offroad vehicle riding | <input type="checkbox"/> Hunting | <input type="checkbox"/> Recreational sport (e.g., tennis, baseball, soccer) |
| <input type="checkbox"/> Recreational boating | <input type="checkbox"/> Fishing | |

Other (Please specify) _____

12. Which of the following best describes your most recent visit to Santee Cooper Country? (Please check one)

- Fishing was the primary reason visiting the Santee Cooper Country.
- Fishing was **not** my primary reason for visiting Santee Cooper Country, but I **did** plan on fishing there before I left home.
- I did **not** plan fishing on my trip to Santee Cooper Country before I left home, but once there, I **did** go fishing.
- I did **not** plan on fishing on my trip to Santee Cooper Country before I left home, and once there, I did **not** go fishing. (Please skip to Section D on page 8)

SECTION B: FISHING AT SANTEE COOPER COUNTRY

1. Where did you fish on your most recent visit to Santee Cooper Country? (Please check all that apply)

- Lake Moultrie Lake Marion Diversion Canal
- Other, Please describe: _____

2. How many days did you spend fishing? _____ Days

3. About how many hours did you spend fishing on your most recent visit? _____ Hours

4. About how many fish were caught by everyone in the group? _____

5. How many fish of legal size did you catch personally? _____
a. Of these, how many did you keep? _____

6. Was this trip to Santee Cooper Country: (Check one)

- The primary destination of your trip?
- A stop en route to another destinations? If so, where? _____

7. What type of fish did your group catch? (Please list below)

8. What did you enjoy **most** about your most recent trip to Santee Cooper Country?

9. What did you enjoy **least** about your most recent trip to Santee Cooper Country?

10. Did you use a fishing guide or charter? Yes No (Skip to Question 21 below)

a. What was the name of the guide or company? _____

If yes, please respond to the following questions about your experience with the guide.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Applicable
a. My guide was knowledgeable.....	1	2	3	4	5	6
b. My guide was helpful.....	1	2	3	4	5	6
c. My guide was rude and/or inconsiderate	1	2	3	4	5	6
d. My guide worked hard to find fish.....	1	2	3	4	5	6
e. My guide provided a fun, pleasurable experience	1	2	3	4	5	6

11. Please answer the following questions with regard to your most recent visit to Santee Cooper Country. How well does each of the following statements describe your feelings about your fishing experience?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Applicable
a. I thoroughly enjoyed the fishing trip.....	1	2	3	4	5	6
b. It was good to be outdoors	1	2	3	4	5	6
c. I was able to get away from the usual demands of life	1	2	3	4	5	6
d. The fishing trip was not as enjoyable as I expected it to be ...	1	2	3	4	5	6
e. I did not catch the kinds of fish I had hoped to	1	2	3	4	5	6
f. I cannot imagine a better fishing trip	1	2	3	4	5	6
g. I enjoyed fishing with the people I fished with.....	1	2	3	4	5	6
h. I wish I had caught more fish.....	1	2	3	4	5	6
i. I do not want to go on any more fishing trips like that one....	1	2	3	4	5	6
j. I enjoyed eating the fish I caught	1	2	3	4	5	6
k. I enjoyed spending time with my family.....	1	2	3	4	5	6
l. The fishing trip was well worth the money I spent to take it .	1	2	3	4	5	6
m. I enjoyed the challenge and the sport.....	1	2	3	4	5	6
n. I would have liked to have caught bigger fish.....	1	2	3	4	5	6
o. I was not able to experience peace and solitude.....	1	2	3	4	5	6
p. I had problems with my fishing equipment.....	1	2	3	4	5	6
q. There were too many people fishing where I was fishing.....	1	2	3	4	5	6
r. I learned how to become a better angler.....	1	2	3	4	5	6

12. How likely is it that you will visit Santee Cooper Country within the next 12 months?

Very Likely Likely Unlikely Very Unlikely No chance

a. If you answered “unlikely” or “no chance” above, why? (Please describe) _____

13. Which of the following best describes how you handled your expenses for your last visit to Santee Cooper Country? *(Please check one).*

- I paid all my expenses and the expenses of ____ other people. *(Please indicate the number of people. In question 13 below, please report all of these expenses).*
- I paid all of my own expenses. *(Please report all of these expenses in question 13 below).*
- I shared expenses. *(In question 13 below, please indicate your personal expenses & your portion of the shared expenses).*
- Someone else paid my expenses. *(Please skip to question Section D below).*

In the spaces provided, please list your estimated expenses for your trip to Santee Cooper Country. For each type of expense, please indicate the amount you spent (a) in preparation for your trip before leaving home, (b) during your travel to Santee Cooper Country, and (c) within Santee Cooper Country. If you did not spend any money in that category, please enter "0."

Type of Expense	Where Expenditures Were Made		
	At home or in your home community	During your travel to Santee Cooper Country	Within Santee Cooper Country
Restaurant (including fast food, sit down, etc.)			
Packaged food and beverages			
Personal items (film, souvenirs, etc.)			
Equipment for your trip (fishing rods, reels, lures, bait, camping equipment)			
Lodging Expenses			
Transportation			
Permits or user fees			
Guide or outfitter fees			
Boat rental			
Fees at other attractions/entertainment			
All other expenses for this trip <i>(please specify)</i>			

SECTION C: FEELINGS ABOUT SANTEE COOPER COUNTRY

1. In the last 12 months, how often did you fish the following Santee Cooper Country lakes, if at all?

	I do not fish there	Average number of visits per season			
		Spring	Summer	Fall	Winter
Lake Marion					
Lake Moultrie					
Diversion Canal					

2. Please indicate how you feel about Santee Cooper Country by responding to each of the statements below.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a. I feel that I can be myself when I visit Santee Cooper Country	1	2	3	4	5
b. I feel that a lot of other fishing spots could substitute for the Santee Cooper Country	1	2	3	4	5
c. Compared to the Santee Cooper Country, there are few satisfactory alternatives.....	1	2	3	4	5
d. I have a lot of fond memories of past experiences with family and friends in Santee Cooper Country.....	1	2	3	4	5
e. I am very attached to the Santee Cooper Country.....	1	2	3	4	5
f. I can't imagine a better place for what I like to do.....	1	2	3	4	5
g. I enjoy visiting the Santee Cooper Country more than any other lake area	1	2	3	4	5
h. I feel a strong sense of belonging to Santee Cooper Country	1	2	3	4	5
i. I feel the Santee Cooper Country is a part of me.....	1	2	3	4	5
j. I have little, if any, emotional attachment to the Santee Cooper Country.....	1	2	3	4	5
k. I identify strongly with the Santee Cooper Country.....	1	2	3	4	5
l. I feel that my identity is reflected in the Santee Cooper Country	1	2	3	4	5
m. I have a special connection to the anglers who visit Santee Cooper Country ...	1	2	3	4	5
n. Many of my friends/family prefer the Santee Cooper Country over other lakes.....	1	2	3	4	5
o. The Santee Cooper Country means a lot to me	1	2	3	4	5
p. Visiting the Santee Cooper Country says a lot about who I am	1	2	3	4	5
q. The time spent on the Santee Cooper Country lakes allows me to bond with my family and friends.....	1	2	3	4	5
r. I associate special people in my life with Santee Cooper Country	1	2	3	4	5
s. My attachment to Santee Cooper Country provides a glimpse of the kind of person I am	1	2	3	4	5
t. Visiting Santee Cooper Country allows me to spend time with my family and friends	1	2	3	4	5

4. On the scale below, please indicate how familiar you are with Santee Cooper Country. (*Circle one number*)

1	2	3	4	5	6	7	8	9
Not at all familiar							Extremely familiar	

5. On the scale below, please indicate how attached you are with Santee Cooper Country. (*Circle one number*)

1	2	3	4	5	6	7	8	9
Not at all attached							Extremely attached	

6. Based on your previous experiences on Lake Moultrie, Lake Marion and the Diversion Canal, please evaluate the following lake attributes by circling the number that most strongly corresponds with your experience.

	Extremely Negative	Negative	Neutral	Positive	Extremely Positive	Unable to Evaluate
LAKE AND RAMP ACCESS						
Lake access by vehicle	1	2	3	4	5	6
Lake access by foot	1	2	3	4	5	6
Number of ramps	1	2	3	4	5	6
Ramp ease of use	1	2	3	4	5	6
Ramp surface	1	2	3	4	5	6
Parking near the ramps	1	2	3	4	5	6
Ramp hours of operation	1	2	3	4	5	6
IMPACT OF OTHER USERS						
Other activities taking place on the lakes	1	2	3	4	5	6
The number of other anglers along the shore	1	2	3	4	5	6
The number of other ramp-users at the lake	1	2	3	4	5	6
The size of other groups encountered	1	2	3	4	5	6
The manners or etiquette of other anglers	1	2	3	4	5	6
The number of other anglers on the lake	1	2	3	4	5	6
Other anglers' pets	1	2	3	4	5	6
The behavior of other anglers	1	2	3	4	5	6
Opportunities for solitude	1	2	3	4	5	6
The cleanliness of the lake	1	2	3	4	5	6
Safety and security of the area	1	2	3	4	5	6
LAKE AND AREA CONDITIONS						
Restrooms/portable toilets at the lake	1	2	3	4	5	6
Fresh water points at the lake	1	2	3	4	5	6
Weeds in the lake	1	2	3	4	5	6
Submerged obstacles	1	2	3	4	5	6
Fish habitat	1	2	3	4	5	6
Number of fish in the lake	1	2	3	4	5	6
Size of fish	1	2	3	4	5	6

	Extremely Negative	Negative	Neutral	Positive	Extremely Positive	Unable to Evaluate
Species of fish.....	1	2	3	4	5	6
Fishing information available to anglers	1	2	3	4	5	6
Safety instructions	1	2	3	4	5	6
MANAGEMENT ACTIONS						
Visibility of rules and regulations	1	2	3	4	5	6
Number of rules and regulations	1	2	3	4	5	6
Clarity of rules and regulations	1	2	3	4	5	6
Number of rangers/management staff at the lake.....	1	2	3	4	5	6
Too few rangers/management staff at the lake.....	1	2	3	4	5	6
Continued.../						
SERVICES						
Marinas	1	2	3	4	5	6
Lodging	1	2	3	4	5	6
Fishing supply stores	1	2	3	4	5	6
Availability of support services.....	1	2	3	4	5	6

7. We would like to know how satisfied you are with fishing at the lake you fish most often in Santee Cooper Country. On the scale below, please rate your most experience. (*Circle one*)

- Poor Fair Good Very Good Excellent Perfect

8. If you could ask managers to improve some things about the fishing at the lake you fish most frequently in Santee Cooper Country, what would you ask them to do?

SECTION D: GENERAL FISHING INFORMATION

1. About how many days have you spent fishing in the last 12 months?

a. Freshwater _____ days

b. Saltwater _____ days

2. Please indicate the number of days you went fishing by season over the last 12 months.

Number of days fished per season:				
	Spring	Summer	Fall	Winter
Freshwater				
Saltwater				

3. How many years have you been fishing? ____ Total Years

4. Do you belong to any fishing clubs? Yes No

If yes, what are they? (i) _____
 (ii) _____
 (iii) _____

5. Have you ever fished in a tournament? Yes No

a. If yes, how many tournaments did you fish in during the past 12 months? _____

6. Do you own a fishing boat? Yes No

7. Do you normally fish: from shore from a boat from shore and boat

8. Do you subscribe to any fishing magazines? Yes No

a. If yes, what are they?
 (i) _____
 (ii) _____
 (iii) _____

9. Please name the fish you most prefer to catch.

First Choice: _____
 Second Choice: _____
 Third Choice: _____
 I have no preference: (please check)

10. Please rate your level of fishing experience on the following scale: (Please circle one)

Novice				Expert
1	2	3	4	5

11. Please indicate the extent to which you agree or disagree with each of the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a. The more fish I catch the happier I am.....	1	2	3	4	5
b. A fishing trip can be enjoyable even if no fish are caught.....	1	2	3	4	5
c. A successful fishing trip is one in which many fish are caught.....	1	2	3	4	5
d. I would rather catch one or two big fish than five smaller fish.....	1	2	3	4	5
e. I would rather catch one or two big fish than ten smaller fish.....	1	2	3	4	5
f. I must keep the fish I catch for the trip to be successful.....	1	2	3	4	5
g. When I go fishing, I'm just as happy if I don't catch a fish.....	1	2	3	4	5
h. I'm just as happy if I release the fish I catch.....	1	2	3	4	5
i. It doesn't matter to me what type of fish I catch.....	1	2	3	4	5
j. The bigger the fish I catch, the better the fishing trip.....	1	2	3	4	5
k. I must catch fish for the fishing trip to be enjoyable.....	1	2	3	4	5

12. Below is a list of statements that address your feelings about fishing. Please indicate your level of agreement by circling one number for each statement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a. Most of my friends are in some way connected with fishing.....	1	2	3	4	5
b. At times, I become overly self-conscious when I'm fishing.....	1	2	3	4	5
c. Fishing is one of the most enjoyable things I do.....	1	2	3	4	5
d. When I participate in fishing others see me the way I want them to see me.....	1	2	3	4	5
e. Participating in fishing provides me with opportunity to be with friends.....	1	2	3	4	5
f. Fishing is one of the things in life that I'm actually good at.....	1	2	3	4	5
g. Fishing is one of the most satisfying things I do.....	1	2	3	4	5
h. When I'm fishing, I'm less self-conscious.....	1	2	3	4	5
i. Participating in fishing says a lot about who I am.....	1	2	3	4	5
j. Fishing provides me with an opportunity to spend time with my family.....	1	2	3	4	5
k. Fishing occupies a central role in my life.....	1	2	3	4	5
l. I have little or no interest in fishing.....	1	2	3	4	5
m. When I'm fishing, I can really be myself.....	1	2	3	4	5
n. To change my preference for fishing to another leisure activity would require major rethinking.....	1	2	3	4	5
o. You can tell a lot about a person by seeing them fishing.....	1	2	3	4	5
p. I enjoy discussing fishing with my friends.....	1	2	3	4	5
q. Fishing is very important to me.....	1	2	3	4	5
r. When I participate in fishing, I can really be myself.....	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
s. I find a lot of my life is organized around fishing.....	1	2	3	4	5
t. I identify with the image associated with fishing.....	1	2	3	4	5

13. How many overnight fishing trips have you taken in the last 12 months? _____

14. How many overnight fishing trips do you expect to take in the next 12 months? _____

15. Below is a list of reasons some people go freshwater fishing. Please circle the number that indicates how important each item is to you as a reason for freshwater fishing.

	Not at all Important	Somewhat Important	Moderately Important	Very Important	Extremely Important
a. To be outdoors.....	1	2	3	4	5
b. For relaxation.....	1	2	3	4	5
c. To get away from the regular routine.....	1	2	3	4	5
d. For the challenge or sport.....	1	2	3	4	5
e. For family recreation.....	1	2	3	4	5
f. To catch fish for eating.....	1	2	3	4	5
g. For physical exercise.....	1	2	3	4	5
h. To be with my friends.....	1	2	3	4	5
i. For the experience of the catch.....	1	2	3	4	5
j. To obtain a trophy fish.....	1	2	3	4	5
k. To experience natural surroundings.....	1	2	3	4	5
l. To be on the water.....	1	2	3	4	5
m. To test my equipment.....	1	2	3	4	5
n. For the anticipation of the catch.....	1	2	3	4	5
o. To be with my family.....	1	2	3	4	5
p. To develop my fishing skills and abilities.....	1	2	3	4	5
q. To be on my own.....	1	2	3	4	5
r. To bring our family closer together.....	1	2	3	4	5
s. To be alone.....	1	2	3	4	5
t. To be with others who share my enthusiasm for fishing.....	1	2	3	4	5
u. To teach others what I have learned about fishing.....	1	2	3	4	5
v. To be away from crowds of people.....	1	2	3	4	5
w. To develop my knowledge of fishing.....	1	2	3	4	5
x. To meet other anglers in the area.....	1	2	3	4	5
y. To be my own boss.....	1	2	3	4	5
z. To learn more about fishing the Santee Cooper Country lakes.....	1	2	3	4	5
aa. To get away from the usual demands of life.....	1	2	3	4	5
bb. To feel isolated.....	1	2	3	4	5
cc. To share what I have learned about fishing with others.....	1	2	3	4	5

SECTION E: INFORMATION ABOUT YOU

1. What is your gender? Female Male
2. What is your age? ____ Years
3. What is the highest grade (or years) of regular school you ever attended? (*Check one of the following*)

- Never attended or kindergarten?
- Elementary/Middle school
- High School
- One year of college
- Associate degree in college/two years of college
- Three years of college
- Four or more years of college/Bachelor's degree
- Some graduate or professional school, but no degree
- Graduate or professional degree

4. How many weeks of vacation did you take last year? _____ Weeks

5. What was your total household income (before taxes) in 2003? (*Check one of the following*)

- Under \$10,000
- \$10,000 to \$19,999
- \$20,000 to \$24,999
- \$25,000 to \$29,999
- \$30,000 to \$34,999
- \$35,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,000
- \$100,000 to \$124,999
- \$125,000 to \$149,999
- \$150,000 or more

6. Are you presently:

- Employed outside the home → full time part time
→ Occupation: _____
- Unemployed
- Retired → Previous occupation: _____
- Full-time homemaker
- Student → full time part time

7. In what race or ethnic group would you place yourself?

Ethnicity (Select one):

- Hispanic or Latino
- Not Hispanic or Latino

Race (Select one or more):

- White
- Black or African American
- Asian American
- American Indian or Alaskan Native
- Native Hawaiian or other Pacific Islander

8. In which of the following kinds of places did you live while growing up (to age 18)?
(*Please mark only one*)

- On a Farm or Ranch
- Rural or Small Town (under 1,000 People)
- Town (1,000 – 4,999 people)
- Small City (5,000 – 49,999 people)
- Medium City (50,000 – 249,999 people)
- Large City (250,000 – 999,999 people)
- In a Major City or Metropolitan Area (more than 1,000,000 people)

9. In which of the following kinds of places do you live now? (*Please mark only one*)

- On a Farm or Ranch
- Rural or Small Town (Under 1,000 people)
- Town (1,000 – 4,999 people)
- Small City (5,000 – 49,999 people)
- Medium City (50,000 – 249,999 people)
- Large City (250,000 – 999,999 people)
- In a Major City or Metropolitan Area (more than 1,000,000 people)

10. How many children (18 and under) reside in your household? _____

Thank you for your assistance!
Please use the postage paid reply envelope
to return your completed questionnaire

APPENDIX B: Magazine subscriptions for Santee Cooper Country - 2004 survey respondents

Fish Magazine?	Visitor (N=131)	%	Non- visitor (N=77)	%	Total (N=208)	%
TOP EIGHT						
BASS/Bassmasters	46	35.1	42	54.5	88	42.3
IN-Fisherman	36	27.5	37	48.1	73	35.1
North American Fishing Club	12	9.2	14	18.2	26	12.5
Field and Stream	13	9.9	7	9.1	20	9.6
Bassin' Magazine	3	2.3	12	15.6	15	7.2
Outdoor Life	9	6.9	5	6.5	14	6.7
SC Game & Fish	7	5.3	3	3.9	10	4.8
Crappie	7	5.3	2	2.6	9	4.3
Other Southeast	26	19.8	18	23.4	44	21.2
Northeast	7	5.3	7	9.1	14	6.7
Midwest	4	3.1	13	16.9	17	8.2
West	0	0.0	2	2.6	2	1.0
Canada	0	0.0	1	1.3	1	0.5
Other National	32	24.4	22	28.6	54	26.0
SOUTHEAST						
Carolina Game & Fish	1		1		2	
FLA. Fish&Game	2		0		2	
Florida Sportsman	3		1		4	
GA outdoor news	1		2		3	
GA sportsman	1		0		1	
Georgia Fish&Game	0		1		1	
Kentucky Fish&Game	1		2		3	
KY Fishing&Hunting	1		0		1	
NC Fishing	1		0		1	
NC Game & Fish	5		2		7	
NC Sportman	3		1		4	
NC wildlife	0		1		1	
S.C. Wild Life	2		0		2	
Santee Chasse & Peche	0		1		1	
Southern fishing	0		1		1	
Tennessee Sportsman	0		1		1	
Tennessee Valley Outdoors	2		0		2	
VA Wildlife	0		1		1	
Virginia Game	0		2		2	
W.V. Outdoor's	1		0		1	
Wildlife In North Carolina	0		1		1	
WV Game & Fish	2		0		2	
	26		18		44	

Fish Magazine?	Visitor (N=131)	%	Non- visitor (N=77)	%	Total (N=208)	%
NORTHEAST						
New Jersey Angler	0		1		1	
NY Fisherman	1		0		1	
PA Angler + Boater	0		1		1	
PA Boating & Fishing	0		1		1	
PA, NY, & OH Game + Fish	1		0		1	
Penna. Angler	0		1		1	
Pennsylvania	1		0		1	
Pennsylvania fishing game	1		0		1	
Pennsylvania Outdoor Times	1		0		1	
The Fisherman NJ/DEL	1		0		1	
The fisherman(mid atlantic)	0		1		1	
The fisherman (NJ)	0		2		2	
Tran Valley Outdoor	1		0		1	
	7		7		14	
MIDWEST						
Mid West Outdoors	1		3		4	
Illinois game+fish	1		0		1	
Ind. Game&Fish	0		3		3	
IOWA Game&Fish	0		2		2	
Michigan Outdoors	0		1		1	
River Hills Traveler (MO)	0		1		1	
Ohio Fishing	0		1		1	
Ohio Game&Fish	1		1		2	
MISS. Game&Fish	0		1		1	
MO fish and game	1		0		1	
	4		13		17	
WEST						
Western Outdoor News	0		2		2	
CANADA						
Ontario Outdoors	0		1		1	
OTHER NATIONAL						
Bass Pro Shops	1		0		1	
Bass time	4		3		7	
Bass&walleye boats	2		2		4	
Honey Hole	0		1		1	
Striped bass	1		0		1	
Striper magazine	0		1		1	
Muskey Hunter	2		0		2	
Walleye	1		0		1	
Walleye Insider	0		3		3	
Catfish insider	0		1		1	

Fish Magazine?	Visitor (N=131)	%	Non- visitor (N=77)	%	Total (N=208)	%
Crappie Journal	1		0		1	
Crappie World	0		1		1	
Field & Fisherman	1		0		1	
Fishing Facts	2		0		2	
FLW Outdoors	6		1		7	
North American Anglers	0		1		1	
Outdoor man	1		0		1	
Outdoor Notebook	1		0		1	
Salt water angler	1		0		1	
Saltwater	1		0		1	
Saltwater Fisherman	1		0		1	
Saltwater Sportsman	4		3		7	
Sport Fishing	0		2		2	
Sports a Field	1		1		2	
The Fisherman	0		2		2	
Trout Unlimited	1		0		1	
	32		22		54	

APPENDIX C. Confirmatory factor solution for place attachment segmentation of visitors to Santee Cooper region (survey question C.2)

Place Attachment	α	λ	<i>t</i> -value
<i>Place Identity</i>	.86		
I feel Santee Cooper Country is a part of me	.84	-	
I identify strongly with the Santee Cooper Country	.73	11.43	
I feel that my identity is reflected in the Santee Cooper Country	.72	11.16	
My attachment to Santee Cooper Country provides a glimpse of the kind of person I am	.76	12.13	
<i>Place Dependence</i>	.78		
I fee that a lot of other fishing spots could substitute for the Santee Cooper Country	.67	-	
Compared to the Santee Cooper Country, there are few satisfactory alternatives	.65	7.85	
I can't imagine a better place for what I like to do	.85	9.59	
<i>Affective Attachment</i>	.89		
I am very attached to the Santee Cooper Country	.83	-	
I enjoy visiting the Santee Cooper Country more than any other area	.80	13.14	
I feel a strong sense of belonging to Santee Cooper Country	.79	12.93	
The Santee Cooper Country means a lot to me	.82	13.57	
I have little, if any, emotional attachment to the Santee Cooper Country	.65	9.94	
<i>Social Bonding</i>	.85		
I have a lot of fond memories of past experiences with family and friends in Santee Cooper Country	.68	-	
I have a special connection to anglers who visit Santee Cooper Country	.64	7.85	
The time spent on the Santee Cooper Country lakes allows me to bond with my family and friends	.76	9.17	
I associate special people in my life with Santee Cooper Country	.80	9.57	
Visiting Santee Cooper Country allows me to spend time with my family and friends	.73	8.85	

APPENDIX D

Assessing the Contribution of the Physical Environment to Place Bonding
Paper submitted for the 2006 Annual NRPA Congress & Exposition, October 11-13,
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Assessing the Contribution of the Physical Environment to Place Bonding

Introduction

For the most part, researchers studying place attachment and related constructs (e.g., sense of place, place bonding, place identity) have adopted social constructionist perspectives which consider landscapes repositories of symbolic meaning rather than solely reflecting a collection of universally defined physical attributes (Brandenberg & Carroll, 1995; Greider & Garkovich, 1994; Stedman, Beckley, Wallace & Ambard, 2004). In the context of leisure places, these meanings most often emerge and are shaped through experience; experiences that occur within socio-cultural contexts. By acknowledging that place meaning is the product of complex interactive processes emanating from shared experience, the perspective allows for the attribution of multiple place meanings conferred to the same setting. Key to understanding variation in these meanings lies in understanding the socio-cultural orientations of those who use or reside within the setting (Eisenhauer, Krannich & Blahna, 2000; Greider & Garkovich, 1994).

In spite of predominance of the socio-cultural perspective, a number of authors have suggested and/or shown that the physical environment also contributes to the nature of the meanings people associate with place and their attachments to these settings. For example, Shumaker and Taylor (1983) suggested that the physical attributes of a setting satisfy certain human needs. Kemmis (1990) suggested that community attachment is based on the attributes contained within the natural environment. More recently, Stedman (2002) illustrated that residents' attachment to their properties situated in a lake district in northern Wisconsin were, in large part, attributable to the unique attributes of the physical environment surrounding their properties.

Thus, while an abundance of conceptual and empirical work has illustrated the influence of social worlds and culture on recreationists' sentiment toward place, questions remain concerning the extent to which the physical environment contributes to the nature and intensity of their attachment. To address this paradox, we explored the influence of recreationists' evaluations of the physical attributes contained within the setting on their attachments to the setting. In so doing, we do not propose determinism, but rather, we seek to understand how elements within the setting influence their bonds to the setting. Given that the physical attributes within a given landscape, to a large part, regulate the behaviors and subsequent experiences possible within the setting, it is reasonable to assume that these features will have some bearing on the sentiments recreationists' express toward the landscape.

Methods

Data Collection

Data for this investigation were collected from two recreation areas situated in the Southeastern U.S.; (a) the Chattahoochee National Forest (CNF) in northeastern Georgia, and (b) members of a database who had enquired about angling opportunities on the Santee Cooper (SC) lakes system. For the CNF data, following an onsite contact ($N=1,342$), respondents were sent a mailback survey instrument to be completed at home. The mailback survey was administered using a modified Dillman (2000) approach which yielded a final sample of 562 completed survey instruments (42% response rate). For the SC data, we extracted names and addresses from the Santee Cooper Tourism Commission's database dating back to 1998 ($N=5,500$). From this, we systematically

selected 2,750 names and addresses (every 2nd name) to be sent a survey instrument. Survey instruments were also distributed using a modified Dillman (2000) procedure. This procedure yielded 430 usable survey instruments. The database contained 581 addresses that were no longer valid and 15 incomplete surveys. Our final response rate for this sample was 19.96 percent.

Measures

Setting Attributes

For the CNF survey, 29 items assessed on a 5 point scale (1=extremely negative through 5=extremely positive) the effect of setting attributes on their forest experience when contacted to participate in this study. These items explored a variety of characteristics that could potentially impact their forest experience (e.g., “roadside signs and directions,” “parking,” “forest development,” and “# of other visitors”). Similarly, for the SC data, 37 items assessed the effect of various lake attributes (using the same rating scale) on their experience during their most recent visit to the Santee Cooper lake system. These items also explored a variety of characteristics that could potentially impact their visit (e.g., “ramp surface,” “the cleanliness of the lake,” “size of fish,” and “fish habitat”).

Place Attachment

Place attachment was measured using 17 items hypothesized to measure four dimensions; place identity, place dependence, affective attachment, and social bonding. Items were measured on a 5 point scale where 1=strongly disagree through 5=strongly agree. The scale is an adaptation of Williams and Roggenbuck’s (1989) measure of place attachment and has received previous empirical support (see Kyle, Mowen & Tarrant, 2004). For each site, the attitude object reflected in the scale items was the specific setting in question; i.e., the CNF and the Santee Cooper lake system. Consistent with Proshansky (1978), place identity examined the components of the self that are reflected in the settings in which respondents’ interact. Place dependence examined the degree to which the setting was able to support their preferred activities (Shumaker & Taylor, 1983). Affective attachment examined respondents’ emotional attachment to the setting, and social bonding examined respondents’ attachment to the setting that was a product of their social ties.

Analyses & Findings

Confirmatory factor analysis (CFA) in LISREL was used to validate the factor structure of our place measure across each of the settings. Results of the procedure illustrated that the scale performed adequately across each of the settings (i.e., all goodness-of-fit indices were within acceptable ranges – RMSEA <.08; NFI, CFI & IFI >.95). Following this, four new variables were computed from the means of the place attachment items measuring each dimension in SPSS (i.e., place identity, place dependence, affective attachment, and social bonding). These new variables were then individually regressed onto the items measuring each setting’s physical attributes. Tables 1 and 2 below provide a summary of the analyses for the two settings.

Table 1.
Chattahoochee National Forest Environmental Attributes’ Effect on Place Attachment

Dependent Variable	Predictor	<i>B</i>	<i>SE B</i>	β	F	df	<i>R</i> ²
--------------------	-----------	----------	-------------	---------	---	----	-----------------------

Place Dependence	Safety and security of the area	.239	.062	.255***	9.538	3,255	.101
	Parking	.154	.053	.189**			
	Roadside signs and directions	-.170	.062	-.187**			
Affective Attachment	Extent of campsite impact	.206	.050	.251***	17.220	1,257	.063
Place Identity	Extent of campsite impact	.194	.050	.237***	15.239	1,256	.056
Social Bonding	Parking	.214	.051	.255***	17.693	1,255	.065

** $p < .01$, *** $p < .001$

For the CNF sample (see Table 1), the physical attributes accounted for a relatively minor proportion of the variance in the place attachment dimensions ranging from 5.6% for place identity through 10.1% for place dependence. All significant attributes had a positive effect on place bonding with the exception of the item “roadside signs and directions” which had a negative effect on place dependence.

Table 2.
Santee Cooper Lake System Environmental Attributes' Effect on Place Attachment

Dependent variable	Predictor	<i>B</i>	<i>SE B</i>	β	F	df	R^2
Place Dependence	Size of Fish	.424	.077	.472***	30.354	1,106	.223
Affective Attachment	Number of fish in the lake	.323	.065	.440***	14.838	3,104	.300
	Restrooms/portable toilets at the lake	-.284	.081	-.335**			
	Number of ramps	.264	.089	.292**			
Place Identity	Number of fish in the lake	.289	.061	.418***	22.489	1,106	.175
Social Bonding	Fish habitat	.301	.078	.347***	16.134	2,105	.235
	Restrooms/portable toilets at the lake	.214	.079	.244**			

** $p < .01$, *** $p < .001$

For the SC sample (see Table 2), the physical attributes accounted for substantially greater proportion of the variance in each of the place attachment dimensions ranging from 17.5% for place identity through 30% for affective attachment. Again, most dimensions had a positive influence on respondents' attachment to the area with the exception of the item “restroom/portable toilets at the lake” which was a negative predictor of affective attachment.

Discussion and Conclusion

These findings illustrate that the physical attributes that comprise recreation settings have the potential to contribute to the bonds recreationists share with the setting. While we do not disregard the social influence on informants' perceptions of the attributes and their experience, it is clear that the physical characteristics of the setting need also to be considered. These findings support other work that has shown that meanings change in congruence with changes in the physical setting. For example, Relph (1976) noted that a place identity is maintained only as long as it plausible. It may become implausible if changing conditions make it inadequate for its primary purpose. Milligan (1998) also noted the distortion in place meaning and an erosion of place bonds among her informants who were employees of a campus coffee shop that was relocated. The new environment was considered inadequate because of its inability to support their accustomed ways socializing and interacting.

The difference between the two sites in the variance accounted among the dimensions of place attachment by the physical attribute indicators is also worth noting. This finding

implies that the role of the setting attributes may vary by context. For the SC sample, respondents' perceptions of the physical attributes were a significant contributor to their attachment to the lake system. Alternately, for the CNF sample, the association between setting attributes and place attachment was considerably weaker. Clearly, additional research is warranted for us to begin to understand under which conditions the physical setting plays a critical role in shaping the nature and intensity of recreationists' attachment to place.

Given that attached recreationists are more likely to be advocates for resource preservation, the cultivation of place bonds could also be considered a positive for managers of recreation resources. These findings suggest that attention to the agency's resources can be an important element supporting the development of these bonds.

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APPENDIX E. Confirmatory factor solution for consumptive orientation among Santee Cooper survey respondents (survey question D.11) (Kyle et al. 2007)

	<i>M</i>	<i>SD</i>	Factor Loadings	<i>t</i> -value
<i>Catch Big Fish</i> ($\alpha=.80$)	3.52	.92		
I would rather catch one or two big fish than five smaller fish	3.69	1.04	.94	-
I would rather catch one or two big fish than ten smaller fish	3.45	1.09	.86	14.95
The bigger the fish I catch, the better the fishing trip	3.41	1.13	.52	8.59
<i>No Catch</i> ($\alpha=.73$)	3.48	.85		
When I go fishing, I'm just as happy if I don't catch fish	3.00	1.12	.62	-
A fishing trip can be enjoyable even if no fish are caught	3.99	.95	.67	9.74
I must catch fish for the fishing trip to be enjoyable*	3.45	1.06	.78	10.20
<i>Catch Many Fish</i> ($\alpha=.70$)	3.49	.95		
A successful fishing trip is one in which many fish are caught	3.24	1.08	.78	-
The more fish I catch the happier I am	3.73	1.07	.66	9.93
<i>Keep Catch</i> ($\alpha=.70$)	1.93	.89		
I must keep the fish I catch for the trip to be successful	1.91	1.04	.89	-
I'm just as happy if I release the fish I catch*	1.96	1.00	.62	6.15

Note. Items measured along a 5-point scale where 1=Strongly disagree and 5=Strongly agree.

* Reverse coded

CFA fit indices: $\chi^2=59.72$, $df=27$, $RMSEA=.052$, $NFI=.96$, $CFI=.98$, $IFI=.98$, $SRMR=.036$

APPENDIX F. Socio-Demographic Profile for consumptive orientation among Santee Cooper survey respondents (Kyle et al., 2007)

Characteristic		Clusters				
		1	2	3	4	
Gender ¹	Female	6.40	3.70	2.68	12.35	$\chi^2_{(3)}=8.75^*$ Cramérs V=.148
	Male	93.60	96.30	97.32	87.65	
Education	Never attended or kindergarten	0	0	0	0	$\chi^2_{(21)}=17.66$ Cramérs V=.125
	Elementary/Middle school	.82	1.39	.94	1.33	
	High school	40.98	30.56	42.45	44.00	
	One year of college	13.93	19.44	11.32	17.33	
	Associate degree in college/two years of college	12.30	13.89	15.09	13.33	
	Three years of college	4.92	2.78	4.72	1.33	
	Four or more years of college/Bachelor's degree	18.03	18.06	19.81	9.33	
	Some graduate or professional school, but no degree	3.28	2.78	.94	6.67	
	Graduate or professional degree	5.74	11.11	4.72	6.67	
	Ethnicity/Race	Hispanic	.79	0	.88	
White		93.70	96.25	94.74	96.34	
Asian American		.79	1.25	0	0	
Black or African American		4.72	2.50	3.53	2.44	
American Indian or Alaska Native		0	0	.88	1.22	
Native Hawaiian or Pacific Islander		0	0	0	0	
Household Income	Under \$20,000	4.24	1.39	5.10	14.10	$\chi^2_{(24)}=31.01$ Cramérs V=.168
	\$20,000 to \$29,999	10.17	9.72	10.20	10.26	
	\$30,000 to \$39,999	11.86	13.89	23.47	14.10	
	\$40,000 to \$49,999	13.56	11.11	10.20	16.67	
	\$50,000 to \$74,999	25.42	34.72	27.55	21.79	
	\$75,000 to \$99,999	22.88	15.28	16.33	11.54	
	\$100,000 to \$124,999	3.39	6.94	3.06	6.41	
	\$125,000 to \$149,999	1.69	2.78	2.04	2.56	
	\$150,000 or more	6.78	4.17	2.04	2.56	
Employment	Employed outside the home	56.92	62.20	52.73	57.47	$\chi^2_{(9)}=13.97$ Cramérs V=.182
	Unemployed	1.54	1.22	2.73	4.60	
	Retired	38.46	34.15	44.55	35.63	
	Full-time homemaker	.77	0	0	2.30	
	Student	2.31	2.44	0	0	

Appendix F, continued

		Clusters				
		1	2	3	4	
Type of Residence	On a farm or ranch	5.47	14.10	10.71	14.81	$\chi^2_{(18)}=21.49$ Cramér's $V=.182$
	Rural or small town (under 1,000 people)	17.97	24.36	19.64	24.69	
	Town (1,000 – 4,999 people)	22.66	10.26	18.75	19.75	
	Small city (5,000 – 49,999 people)	26.56	33.33	25.00	17.28	
	Medium city (50,000 – 249,999 people)	18.75	8.97	13.39	12.35	
	Large city (250,000 – 999,999 people)	6.25	6.41	7.14	8.64	
	In a major city to metropolitan area (more than 1,000,000 people)	2.34	2.56	5.36	2.47	
Age	<i>M (SD)</i>	51.76 (13.52)	54.60 (13.92)	55.36 (12.31)	53.26 (13.24)	$F=1.62$, $df=3,394$, $\eta^2=.012$

¹ Cell percentage are based on column totals.

* $p < .05$

1=*Lots 'o Fish*, 2=*Bigguns*, 3=*Nothin'*, and 4=*Keepers*.