

Progress Report

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SHRIMP AND TOURISM IN SOUTH CAROLINA

Recreation, Travel & Tourism Institute, Clemson University

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This project refers to section **2.4.b.** in the South Carolina Shrimp Fishery Assistance proposal prepared by Clemson University—Research to support the development of a marketing plan for the S.C. shrimp industry to promote a stable market with fair prices. This portion of the project is to assist the South Carolina Shrimp Industry through research that examines the potential of marketing locally harvested shrimp to coastal visitors in partnership with the state’s travel and tourism industry.

Interviews/case studies

- Bill Norman will be taking a group of graduate students to the Gulf Coast this March (Biloxi, Pensacola, Gulf Shores) to complete case study work. These locations have been selected as regions, communities, businesses, and festivals where the tourism and shrimp industry partnership is more mature than in South Carolina. Following this trip we will compile a report on case studies.

Shrimp & Tourism survey

Survey data collection reported here involved 3 versions of our coastal tourism survey designed to identify tourist preferences regarding locally harvested shrimp product.

- South Carolina Coastal Tourism (mail survey)—(July through October, 2004); intercepted South Carolina coastal visitors to four of the six counties of coastal South Carolina. Sampling proportion was based on visitor spending data for each of the counties. Addresses were collected at 21 sites.
- Beaufort Shrimp Festival (mail survey) —Tourists (non-residents) at the Beaufort Shrimp Festival; these received the same shrimp survey with some added questions specific to the festival.
- Daniel Island Park Festival (1 page onsite survey)—Any attendees (locals and non-locals) were eligible for the survey; the survey included a set of questions from mail survey regarding shrimp selection preferences. The focus here was to allow comparison between locals/residents and coastal visitors on some survey items.

Table 1. SC Coastal Tourism Survey data collection summary.

	# of addresses	# of surveys mailed	Bad add	Good add	Total response	Total usable surveys	Resp Rate %
SC Coastal Tourism Shrimp Mail Survey (visitors)							
Region 1	487					239	
Region 2	186					76	
Region 3	158					75	
TOTAL	831	831	28	802	414	390	48.63
Beaufort Festival Survey (visitors)	429	429	24	405	249	248	61.23
Daniel Island Festival Survey (locals)					246	239	

SOME HIGHLIGHTS FROM SURVEY FINDINGS

SC Coastal Tourists

- Less than 10% purchased fresh locally harvested shrimp to take home.
- 30% of survey respondents are “culinary tourists”, meaning they are more interested in local food and drink and quality dining, and less interested in “familiarity” of restaurants (TABLE 4)
- Coastal tourists in general are relatively uninformed about shrimp. However, the “culinary” subgroup was the most knowledgeable about shrimp. (TABLE 5)
- The “culinary” tourist subgroup has a greater desire to 1) eat shrimp in traditional southern recipes and 2) time their visit when fresh locally harvested shrimp is available. (TABLE 6)

Beaufort Shrimp Festival Tourists(TABLE 3 & 7)

- Almost half (41%) of Beaufort Festival survey respondents are likely or extremely likely to attend next year.
- 70% of Beaufort Festival survey respondents are likely or extremely to recommend the Festival to others.
- 83.8% of Beaufort Festival survey respondents were satisfied or extremely satisfied with the Festival.
- The average amount spent on shrimp at the Festival was \$27.88.
- During their coastal visit, almost half of Beaufort Festival tourists believed the shrimp they ate was locally harvested, while less than 1/5 of SC Coastal tourists believed the shrimp they ate was local.
- During their entire coastal visit, Beaufort Festival tourists spent on average \$13 more than SC Coastal tourists on purchasing shrimp to bring home.

Daniel Park Festival

- Most (86%) of Daniel Park Festival survey respondents were locals (from county area)
- The top three reasons for attending were: spend time with family (28.7%), children’s activities (24.3%), and participation in Komen Charleston Race for the Cure (13.8%); only 2% attended primarily to eat fresh shrimp.
- 29.1 % of survey respondents had already purchased shrimp at the SC Shrimpers’ association booth and 37.2 % planned to purchase shrimp at the booth.

“Eat local shrimp” Advertising

- Fewer than 5% of tourists picked up information about South Carolina shrimp at the welcome center.
- Almost a third of Beaufort Festival tourists had heard advertising about eating local seafood, while less than 1/5 of SC Coastal tourists heard this advertising.
- Nearly 9 out of 10 (86%) of Daniel Island Festival respondents (primarily locals) had heard recent advertising about eating local seafood

Comparison of groups on shrimp selection preferences (TABLE 8 and 9):

- Taste, quality, and safety was most important for all three survey groups. USA caught was more important than a regional brand of shrimp. Regional brand names should be tied to taste, quality and safety.
- The Daniel Island Festival goers (primarily locals) placed more importance on “Support Local Fishermen” than the other survey groups.

PRELIMINARY RESULTS

1) Some preliminary information about each survey group.

SC Coastal Tourists

- Less than 10% purchased fresh locally harvested shrimp to take home. This contradicts the shrimp heavy segment’s intentions which suggests the producers could make transportation of shrimp less burdensome.
- Survey respondents who eat shrimp (n=314) fit into three segments based on frequency of shrimp consumption year round.

Table 2: SC coastal tourist segmentation by shrimp consumption pattern (n = 314).

Group	%	Travel planning and activities
“shrimp consistent” (once a month)	55.2%	Importance on memory of eating shrimp after return home
“shrimp heavy” (once every two weeks)	30.9%	Greater intention to return home with shrimp purchased while on vacation
“shrimp enthusiasts” (once a week)	14.1%	Roadside signs detailing where to purchase shrimp were important; higher demand for quality restaurants

Beaufort Shrimp Festival Tourists

Table 3 provides a summary of responses to satisfaction and expenditure questions specific to the festival. For festival goers, coastal setting is important to satisfaction and likelihood of returning to the festival the next year, however shrimp was important to the overall visitor experience.

Table 3: Beaufort Shrimp festival survey questions—satisfaction response summary

Satisfaction	N	Response		
How many times have you attended Beaufort Shrimp Festival?	241	73% attending for first time		
Did you know about the Beaufort Shrimp festival, prior to your visit?	242	No (40%)	Yes (60%)	
What days you attended the Beaufort Shrimp Festival?	238	Fri (15%)	Sat (61%)	Both (24%)
How likely are you to attend the Beaufort Shrimp Festival next year?	240	41 % are likely or extremely likely		
How likely are you to recommend the Beaufort Shrimp Festival to others?	240	70% were very likely or extremely likely		
Please rate your overall satisfaction with the Beaufort Shrimp Festival?	240	83.8% were satisfied or extremely satisfied		
Expenditures related to the shrimp festival		Min.	Max.	Average
How much did you spend in the Beaufort area?	206	0	\$3,000.00	\$317.33
How much did you spend at the Beaufort Shrimp Festival?	216	0	\$3,000.00	\$64.90
How much did you spend on shrimp at the Beaufort Shrimp Festival?	203	0	\$150.00	\$27.88

Daniel Island Park Festival

- The majority (86%) were from the local area.
- The top three reasons for attending the festival were: spend time with family (28.7%), children’s activities (24.3%), and participation in Komen Charleston Race for the Cure (13.8%).

- Only 2% (5 respondents) attended primarily to eat fresh shrimp.
- Nearly 9 out of 10 (86%) of respondents had heard recent advertising about eating local seafood
- 29.1 % had already purchased shrimp at the SC Shrimpers’ association booth and 37.2 % planned to purchase shrimp at the booth.
- These results suggest that specific non-shrimp festival activities are attracting local residents, but likely providing a good opportunity for exposure by the shrimp industry to people who may not normally focus primarily on shrimp.

2) **Identification of food tourism subgroups among coastal tourists (Table 4).**

Tourists were segmented according to 5 major factors based on their food preferences while traveling. At least 30% of SC coastal tourists in the study population (Shrimp Tourism Survey) are “culinary tourists”.

Table 4: Results of analysis to segment SC coastal tourists based on food preference factors.

SEGMENTS	Number of respondents	FOOD PREFERENCE FACTORS (Average response)				
		Dine Local	Local Drinks	Purchase Local	Dine Elite	Familiarity
Culinary	107 (30.05%)	3.81	2.67	2.64	3.07	1.85
Experiential	140 (39.33%)	3.25	2.27	2.36	2.53	3.07
General	109 (30.62%)	2.81	1.42	1.86	1.84	2.56
Grand Mean		3.29	2.13	2.29	2.48	2.55

- Culinary tourists— more interested in local and elite dining, least interested in “Familiarity”
- General tourists—higher preference for familiarity (e.g. Red Lobster, KFC)
- Experiential tourist— medium scores except the “Familiarity” which was highest

3) **Knowledge about shrimp (Table 5).**

Shrimp tourism survey respondents were asked to rank their knowledge about shrimp. The “culinary” subgroup ranked as the most knowledgeable. The tourists as a whole are relatively uninformed about shrimp.

Table 5: Average responses for self assessed “Knowledge about Shrimp” by each subgroup.

Items	General	Experiential	Culinary	
Cooking and preparation of shrimp	2.49	2.57	3.13	*
Nutritional benefits of shrimp	2.06	2.22	2.66	*
Selecting quality shrimp for purchase	2.03	2.10	2.69	*
Safety of shrimp	1.70	1.83	2.22	*
Seasonal differences in shrimp	1.48	1.79	1.97	*
Commercial shrimp fishing	1.60	1.61	1.80	
Differences between imported and domestic shrimp	1.54	1.61	1.83	
Marine environmental sustainability issues related to shrimp	1.29	1.35	1.64	*
History of shrimp fishing in South Carolina	1.25	1.41	1.60	*
Shrimp farming	1.26	1.37	1.46	
Shrimp regulations/ management	1.23	1.24	1.44	

Responses ranged from 1 to 5 (1 = “Totally uninformed” to 5 = “Extremely knowledgeable”), * = significant diff. (0.05)

4) Interest in shrimp related experiences while traveling (Table 6).

The Culinary tourist subgroup showed significant difference from the General Tourist subgroup on 1) eating shrimp in traditional southern recipes and 2) timing my visit when fresh locally harvested shrimp is available.

Table 6: Average responses for the 14 items indicating “Interest in shrimp related experiences while traveling the coast” by each Cluster.

Items	General	Experiential	Culinary
I would like to eat shrimp cooked in traditional southern recipes	3.61	3.88	4.01
I would like to eat fresh shrimp at local festivals or events	3.31	3.54	3.54
I would like to bring home freshly caught shrimp	3.00	3.19	3.22
I would like to see shrimp boats when I am visiting	3.20	3.12	3.12
I would like to learn from a chef how to cook shrimp in traditional southern recipes	2.89	3.07	3.22
I would like to have a travel guide with information on locations to purchase local shrimp	2.82	2.93	3.08
I would like to learn more about local shrimping heritage	2.85	2.94	2.90
I would like to use a travel guide with information on where to see local shrimp boats	2.87	2.82	2.88
I would like to tour a shrimp trawler that's docked	2.80	2.86	2.80
I would like to time my visit when fresh locally harvested shrimp is available	2.47	2.87	2.94
I would like to learn about shrimp fishing from a commercial shrimp fishermen	2.71	2.71	2.67
I would like to go out on a commercial shrimp trawler	2.48	2.68	2.59
I would like to go out on a charter boat to catch shrimp	2.41	2.71	2.54
I would like to order shrimp to be mailed to me from where I visited	2.16	2.07	2.35

Responses ranged from 1 to 5 (1= “ Strongly Disagree”, 2= “Disagree”, 3= “Neutral”, 4= “Agree” and 5= Strongly Agree”; * = significant difference at .05

5) Trip characteristics—comparison of SC Coastal and Beaufort Festival (Table 7).

Respondents who were shrimp eaters were asked about the planning, travel to, onsite, travel from, and recollection phases of their trip. Not surprisingly, the Beaufort Festival survey group placed greater importance on shrimp in travel planning. Table 7 lists some of the more notable trip characteristics. Some highlights are:

- Fewer than 5% of tourists picked up information about South Carolina shrimp at the welcome center.
- SC and Beaufort Festival tourists ate shrimp an average of 3 times during their visit.
- Almost half of Beaufort Festival tourists believed the shrimp they ate was locally harvested, while less than 1/5 of SC Coastal tourists believed the shrimp they ate was local.
- Almost a third of Beaufort Festival tourists had heard advertising about eating local seafood, while less than 1/5 of SC Coastal tourists heard this advertising.
- Beaufort Festival tourists spent on average \$13 more than SC Coastal tourists on purchasing shrimp to bring home.

Table 7. Comparison of SC Coastal and Beaufort Festival Tourists – Trip Characteristics

Trip Characteristic	SC Coastal % (n = 317)	Beaufort % (n = 222)
<i>Anticipation/Trip planning</i>		
Eating locally harvested shrimp on the coast was the primary reason of my trip	1.9	18.9
I planned to purchase locally harvested shrimp at my travel destination	14.8	34.2
I planned to bring locally harvested shrimp home from my travel destination	8.8	25.7
<i>Travel to...</i>		
I picked up information about availability of shrimp from a SC welcome Center	2.8	5.0
I purchased shrimp available from sites along the way	9.1	17.1
I looked for signs on where to purchase shrimp	10.4	11.7
<i>On-site</i>		
How many times did you eat shrimp while visiting the coast (AVERAGE)	3.0	3.3
I ate shrimp at local restaurants	63.7	71.7
I ate shrimp at restaurants known for its shrimp dishes	12.0	24.3
I ate shrimp at festivals or fairs	1.9	74.8
I ate shrimp at high quality restaurants	34.4	30.1
I ate shrimp at dockside or waterfront restaurant	36.6	48.7
I ate shrimp at seafood chain restaurants	12.6	6.2
I purchased shrimp at shrimp boat	6.6	24.6
I purchased shrimp at seafood store	12.6	19.2
I purchased shrimp at festivals or fairs	0.6	19.7
I purchased shrimp at dockside stand/ vendor	8.5	16.8
I purchased shrimp at roadside stand	4.7	8.2
I purchased shrimp at grocery stores	12.3	7.7
I know the shrimp I purchased was locally harvested	18.3	43.0
I know the shrimp I ate was locally harvested	20.5	47.3
I talked to fishermen to learn more about locally harvested shrimp	2.2	19.6
I viewed boats on which shrimp are caught	18.9	66.5
I took pictures of shrimp boats	9.5	42.0
I learned about the history of shrimp fishing in South Carolina	4.1	16.1
I saw/ heard advertising about eating local seafood	17.4	30.4
<i>Travel home...</i>		
I purchased fresh locally harvested shrimp to take back home	9.1	30.8
I purchased local sauces and seasonings to take back home	6.9	14.0
<i>Trip recollection</i>		
Eating shrimp was an important part of my activities as a tourist to the coast	14.2	42.1
Eating shrimp was one of memorable aspects of my travel to the coast	18.3	46.2
Looking back, eating shrimp was an important part of my coast trip	13.6	36.7
Since returning, I have recommended the SC coast as a place to eat shrimps to friends	16.4	40.7
I am planning to return to the SC coast to eat shrimp	27.8	51.6
<i>Expenditures</i>		
Money spent on shrimp at eating establishments	\$58.13	\$61.92
Money spent on shrimp at the destination	\$33.10	\$31.18
Money spent on shrimp to bring back home	\$26.93	\$40.38

6) Interest in specific shrimp selection factors, while visiting the coast (Tables 8 and 9).

- **Comparison of SC Coastal Tourist subgroups (Table 8):**
 - *Culinary Tourist (N=107)*: “Tastes Good” was most important, followed by “Appearance”, “Health Safety- Pollution”, “Reputation of a Restaurant”, “Storage temperature since caught”
 - *Experiential Tourist (N=140)*: “Tastes Good” was most important, followed by” Health Safety- Pollution”, “Reputation of a Restaurant”, “Storage temperature since caught”, “Appearance”
 - *General Tourist (N=109)*: “Tastes Good” was most important, followed by” Health Safety- Pollution”, “Storage temperature since caught”, “Appearance” and “Health Safety Additives”

- **Comparison of survey groups (SC Coastal, Beaufort, Daniel Island):** Table 9 shows differences among the survey groups. The Daniel Island festival attendees (86% locals) placed more importance on “Support Local Fishermen” than the two other groups. This implies that the local residents place more importance on the fact that by selecting SC shrimp they are supporting the local fishermen.

Table 8. Average responses for shrimp selection factors for each segment.

Selection Items	General	Experiential	Culinary	
Tastes good	4.54 ^a	4.59	4.80 ^a	*
Health safety- pollution	4.38	4.29	4.39	
Appearance	4.10 ^a	4.16	4.41 ^a	*
Storage temperature since caught	4.11	4.17	4.31	
Reputation of a restaurant	3.93 ^{a,b}	4.27 ^b	4.32 ^a	*
Health safety- additives	4.00	4.07	4.15	
Premium quality	3.78	3.99	4.28	*
Reputation of vendor/retailer	3.67 ^{a,b}	4.07 ^b	4.13 ^a	*
Industry inspected	3.58	3.90	3.82	
Government inspected	3.58	3.95	3.72	
Good value for the money	3.71	3.88	3.67	
When the shrimp was caught	3.74	3.48 ^a	4.06 ^a	*
Size	3.56	3.64	3.79	
Fresh, never frozen	3.47 ^b	3.38 ^a	4.00 ^{a,b}	*
Recommended by locals	3.28 ^a	3.62	3.84 ^a	*
Supports local fishermen	3.23 ^a	3.59	3.80 ^a	*
In-season	3.34 ^a	3.41	3.80 ^a	*
USA caught	3.46	3.35	3.70	
Low price	3.35	3.55	3.31	
Nutritional value	2.93	3.27	3.42	*
Harvested in an environmentally sustainable manner	2.94	3.00	3.35	
Local wild caught	2.91 ^b	2.88 ^a	3.50 ^{a,b}	*
State of origin	3.05	3.07	3.12	
A regional shrimp brand name	2.58 ^{a,b}	3.12 ^b	3.14 ^a	*
Where the shrimp was caught	2.67 ^b	2.73 ^a	3.28 ^{a,b}	*
Certified organic	2.43 ^a	2.98 ^a	2.77	*
Local farm-raised	2.54	2.73	2.80	
Who caught the shrimp	1.85 ^a	2.31 ^a	2.30	*

Scale was 1 to 5 with 1= “Not important”, 2 = “Slightly Important” 3 = “Somewhat Important” 4= “Important” and 5= “Extremely Important”. * = significant difference at p<.05. The superscript ^{a b} letters indicate significant differences. Example, if two columns share the same letter ^a, they are significantly different from each other.

Table 9. Average responses for shrimp selection factors by survey group.

Items	Tourists	Beaufort	Daniel	
Tastes good	4.63	4.63	4.74	
Health safety- pollution	4.34	4.27 ^a	4.50 ^a	*
Storage temperature since caught	4.21 ^a	4.37	4.42 ^a	*
Appearance	4.23	4.24	4.30	
Health safety- additives	4.09 ^a	4.09	4.30 ^a	*
Reputation of a restaurant	4.16	4.09	4.19	
Premium quality	4.04	4.16	4.19	
Reputation of vendor/retailer	3.97	4.04	4.12	
When the shrimp was caught	3.78 ^{a,b}	4.15 ^a	4.10 ^b	*
Good value for the money	3.75 ^a	3.78	3.96 ^a	*
Supports local fishermen	3.61 ^a	3.84 ^{a,b}	4.09 ^{a,b}	*
Fresh, never frozen	3.63 ^{a,b}	3.88 ^a	3.89 ^b	*
Size	3.69 ^a	3.73 ^b	3.93 ^{a,b}	*
Recommended by locals	3.63 ^a	3.87 ^a	3.85	*
Industry inspected	3.78 ^a	3.51 ^{a,b}	3.86 ^b	*
In-season	3.56 ^{a,b}	3.86 ^a	3.82 ^b	*
Government inspected	3.76 ^a	3.44 ^{a,b}	3.86 ^b	*
USA caught	3.53 ^a	3.64	3.81 ^a	*
Low price	3.42 ^a	3.41	3.69 ^a	
Local wild caught	3.16 ^{a,b}	3.55 ^a	3.51 ^b	*
Nutritional value	3.24 ^a	3.24 ^b	3.60 ^{a,b}	*
Harvested in an environmentally sustainable manner	3.13 ^a	3.22 ^b	3.77 ^{a,b}	*
State of origin	3.12 ^a	3.17	3.45 ^a	*
Where the shrimp was caught	2.93 ^a	3.09 ^b	3.49 ^{a,b}	*
A regional shrimp brand name	3.00	3.03	3.20	
Local farm raised	2.74 ^a	2.85	3.00 ^a	*
Certified organic	2.77	2.73	2.90	
Who caught the shrimp	2.23 ^a	2.41 ^b	2.78 ^{a,b}	*

Scale was 1 to 5 with 1= “Not important”, 2 = “Slightly Important” 3 = “Somewhat Important” 4= “Important” and 5= “Extremely Important”. * = significant difference at p<.05. The superscript ^{a b} letters indicate significant differences. Example, if two columns share the same letter ^a, they are significantly different from each other.

