

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.



RESEARCH REPORT 09-2004-01

REGIONAL ECONOMIC DEVELOPMENT RESEARCH LABORATORY



The South Carolina Shrimp Trawling Industry 2003 Survey Results

by David L. Barkley Mark S. Henry Brian P. Gantt

Regional Economic Development Research Laboratory Department of Applied Economics and Statistics Clemson Shrimp Fisheries Assistance Project Clemson University, Clemson, South Carolina

Clemson University Public Service Activities



The South Carolina Shrimp Trawling Industry 2003 Survey Results

by

David L. Barkley Mark S. Henry Brian P. Gantt

The South Carolina Shrimp Trawling Industry 2003 Survey Results

Introduction

The South Carolina shrimp trawling industry is experiencing difficult economic times as a result of reduced catch and lower prices received per pound. From 1995 through 2000, annual shrimp landings in South Carolina ranged from 3,429,734 to 6,773,788 in heads-off pounds (tables 1 and 2). The average landings during this 6 year period was 4,430,474 pounds, and the average ex-vessel dollar value of the landings was over \$16,522,000. In 2001 and 2002, however, annual landings declined to an average of only 3,077,934 pounds with an average annual ex-vessel value of \$8,858,499. The significant decline in revenues from shrimping was the result of a combination of smaller landings and lower prices received. The average price per pound (heads-off) for South Carolina shrimp landings was \$3.73 for the period 1994 through 2000 (Figure 1). Larger imports of farm-raised shrimp drove the average annual price per pound down to \$3.09 in 2001 and \$2.70 in 2002.

Lower revenues and higher operating costs encouraged individuals to exit the shrimping industry. In 2002 there were 730 boats registered to shrimp in South Carolina waters, 438 of which were owned by South Carolina residents. Total boat registrations declined to 535 in 2003, and in-state boat registrations fell by 76 to 362 boats. The decline in shrimp boat numbers and catch raised concern over the sustainability of the state's shrimp trawling industry. In response to this concern a mail survey of shrimp trawler owners was conducted by the Clemson University Shrimp Fisheries Assistance Project in the fall of 2003. The purpose of the survey was to develop an inventory of

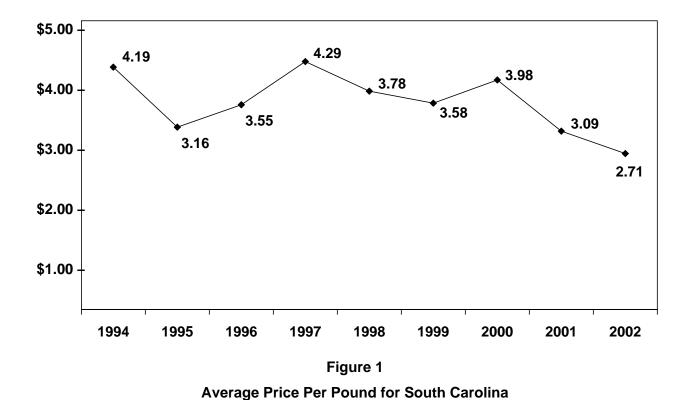
Table 1. South Carolina Shrimp Landings (Total Heads-off Lbs.) and Ex-vessel Dollars, By Region, 1994-2002

			Region			_
Year	BCD	Beaufort Jasper	Colleton	Georgetown	Other	State Totals
1994 Pounds Value	1,625,477 \$7,063,771	907,582 \$3,913,212	164,606 \$751,116	757,860 \$2,758,523	6,877 \$27,812	3,462,402 \$14,514,434
1995 Pounds Value	2,814,155 \$9,261,935	2,268,808 \$7,444,471	464,894 \$1,425,813	1,216,036 \$3,257,474	9,895 \$36,257	6,773,788 \$21,425,950
1996 Pounds Value	1,246,884 \$4,575,901	1,123,154 \$4,262,109	219,080 \$859,547	839,080 \$2,481,181	1,536 \$3,917	3,429,734 \$12,182,655
1997 Pounds Value	1,799,765 \$7,563,611	1,452,638 \$6,985,089	216,566 \$1,036,803	794,841 \$2,690,388	4,405 \$14,777	4,268,215 \$18,290,668
1998 Pounds Value	1,570,961 \$6,534,324	1,381,566 \$5,098,138	222,300 \$778,589	884,249 \$2,964,285	13,831 \$44,067	4,072,907 \$15,419,403
1999 Pounds Value	2,222,318 \$7,885,367	1,550,175 \$5,927,868	298,254 \$1,112,973	1,042,092 \$3,389,251	4,653 \$17,959	5,117,492 \$18,333,419
2000 Pounds Value	1,762,895 \$6,800,750	1,186,723 \$5,087,965	171,213 \$699,311	767,408 \$2,902,661	539 \$2,806	3,888,778 \$15,493,494
2001 Pounds Value	1,221,682 \$3,703,879	1,074,977 \$3,441,952	109,926 \$357,005	403,876 \$1,179,936	1,284 \$4,531	2,811,745 \$8,687,305
2002 Pounds Value	1,589,084 \$4,410,297	1,015,353 \$2,772,840	126,577 \$373,547	611,689 \$469,558	1,419 \$3,451	3,344,122 \$9,029,693

Source: SC Department of Natural Resources

Table 2. Average South Carolina Shrimp Landings by Grade (Heads-Off Pounds), 1988-2002

	Average Per Year			
Grade	1988-2002	Percentage of Total		
16-20	14,633	.4%		
21-25	387,855	10.1%		
26-30	742,183	19.3%		
31-35	495,421	12.9%		
36-40	170,866	4.4%		
41-45	641,467	16.7%		
46-50	68,922	1.8%		
51-55	517,210	13.4%		
56-60	166,098	4.3%		
61-70	435,170	11.3%		
70+	207,183	5.4%		
Total	3,847,009	100.0%		



Landed Shrimp (Heads-off), 1994-2002

shrimp trawling boats in South Carolina waters for 2002 and 2003. Of specific interest were the characteristics of the shrimp trawler operations (home state, boat size, days shrimping per year, annual catch) and the importance of shrimping to household income. A copy of the mail survey instrument is provided in the appendix of this publication.

Survey Participation

The survey was mailed to 731 individuals who registered shrimp boats in South Carolina in either 2002 or 2003. A total of 922 boats were registered to 731 individuals or companies. Table 3 provides a breakdown of the boats according to boat size and state of residence of the boat owners as provided in the South Carolina registration file. Also provided are the survey response rates (% of total) for the boats by size and home state of owner. Returned surveys were received from 30.4% of the individuals contacted and 27.5% of the boats registered. The distribution of the retuned questionnaires by state (SC, NC, GA, FL, other) was very similar to the geographic distribution of boats and boat owners. For example, South Carolina residents had 57% of the 2002 boat registrations, 64% of the 2003 registrations, and 61% of the returned surveys. The remaining survey responses were primarily for boats owned by North Carolina (20%) and Georgia (13%) residents.

The returned surveys by boat size were over-represented by large boats (greater than 70 feet long) and under-represented by small boats (less than 50 feet long) relative to the boats registered in 2002 or 2003. Specifically, 45% of the returned surveys were from small boats while 54% of the boats registered in 2003 were under 50 feet in length. Alternatively, 24% of the survey responses were from large boats yet only 11% of the

Table 3. Boat Sizes and Home State for Boats Registered To Shrimp in South Carolina in 2002 or 2003*

	2002		200		
	Number	Percent	Number	Percent	Returned Surveys (275)
Boat Length					
Less than 50 ft.	390	54%	303	57%	45%
50 ft. to 70 ft.	236	32%	173	32%	32%
Greater than 70 ft.	104	14%	59	11%	24%
Total	730	100%	535	100%	
Home State					
South Carolina	416	57%	345	64%	61%
North Carolina	158	22%	114	21%	20%
Georgia	116	16%	61	11%	13%
Other	40	5%	15	3%	5%

^{*} Data do not include the 48 individuals (57 boats) whose surveys were returned because of inaccurate addresses.

Table 4. Shrimping Activity of Survey Respondents by Boat Size

	Less Than 50 Feet (112)*	50 Feet To 70 Feet (81)	More Than 70 Feet (60)
Average Days Shrimped in 2002	70	145	165
Average Days Planned for 2003	73	153	158
Average Pounds Caught in 2002	9,130	37,238	53,515
Average Percent of Household Income from Shrimping, 2002	34%	70%	75%

^{*}Findings based on 253 completed surveys. Numbers in parentheses are the number of boats in the boat size category. Pounds caught were measured heads-on.

2003 registrations were for boats greater than 70 feet long. In summary, the survey findings may overstate shrimp trawling activity in South Carolina waters because the smaller boats are under-represented among the respondents. Survey findings pertaining to days shrimped, pounds caught, and income earned from shrimping are presented by boat-size categories to control for the biased response rates.

Survey Findings

The average levels of shrimping activity by boat-size categories are summarized in table 4. The small boats (less than 50 feet long), on average, shrimped approximately 70 days and caught about 9,100 pounds (heads-on) of shrimp in 2002. Income from shrimping was about one-third of household income for the owners of small boats.

Average shrimping days and catch increased significantly for medium-sized (50 to 70 feet long) and large (greater than 70 feet) boats. Medium-sized boats averaged 145 days shrimped and 37,238 pounds (heads-on) caught in 2002. Medium-size boat owners reported that average income from shrimping was 70% of household income. Large boats (more than 70 feet), on average, shrimped more days (165) and caught more shrimp (53,515 pounds) than the small and medium boats. However, the average share of household income from shrimping for the large boats (75%) was similar to that reported by the owners of medium-sized boats (70%).

The distributions of boats reporting by days shrimped, shrimp caught, and contributions to household income are provided in table 5. Only 23% of the reporting boats shrimped all season (defined as 200 days or more); however, 59% of the survey respondents shrimped 100 days or more. Interestingly, 9% of the respondents did not shrimp in 2002 and 17% did not plan to shrimp in 2003.

Table 5. Activity Levels of Shrimp Boats Registered in South Carolina, 2002 and 2003.

I. Days Shrimped, 2002	Total	Percentage of Boats Reporting (243)
200 Days or More	55	23%
150 to 199 Days	46	19%
100 to 149 Days	42	17%
50 to 99 Days	24	10%
1 to 49 Days	54	22%
0 Days Reported	22	9%
Not Available	13	
Total	256	
		Percentage of
II. Planned Days	Total	Boats Reporting (224)
Shrimped, 2003		
200 Days or More	55	25%
150 to 199 Days	40	18%
100 to 149 Days	39	17%
50 to 99 Days	23	10%
1 to 49 Days	29	13%
0 Days Planned	38	17%
Not Available	32	
Total	256	
		_
III. Shrimp Caught	m -	Percentage of
(heads-on pounds) 2002	Total	Boats Reporting (230)
200,000 +	2	1%
100,000 to 199,999	9	4%
80,000 to 99,999	11	5%
60,000 to 79,000	16	7%
40,000 to 59,999	30	13%
20,000 to 39,000	45	20%
10,000 to 19,999	27	12%
1,000 to 9,999	41	18%
01 to 999	26	11%
No Catch Reported	23	10%
Not Available	8	
Total	238	
IV. Percentage of Household		Percentage of
Income from Shrimping	Total	Boats Reporting (234)
80% +	98	42%
60% to 79%	29	12%
40% to 59%	25	11%
20% to 39%	17	7%
0% to 19%	65	28%
Not Available	22	
Total	256	

The distribution of shrimp catch per boat (heads-on pounds) also indicates numerous part-time shrimpers among those registered to shrimp in South Carolina. Thirty-nine percent of the boats reported less than 10,000 pounds caught in 2002, and 10% reported no catch. Alternatively, 30% of the respondents reported catches over 40,000 pounds and 5% of the boats caught over 100,000 pounds in 2002.

Shrimping was a critical source of household income for many boat owners. Fifty-four percent of the respondents reported that income from shrimping was 60% or more of total household income, and 42% of the owners reported that more than 80% of household income came from shrimping. At the other extreme, 28% of the boat owners reported that little of their household income (less than 20%) came from shrimping. For these individuals, shrimping appears to be more of a recreational activity than an occupation.

Boat Characteristics. Based on survey responses, the most common shrimp boat registered in South Carolina was less than 50 feet in length, had a fiberglass hull, had an engine with 6 cylinders, had two nets, and was at least 20 years old. However, boats registered to South Carolina residents were, on average, smaller and less powerful than those of out-of-state owners (table 6). Among the survey respondents, only 10% of the South Carolina boats were longer than 70 feet while 46% of out-of-state boats were in the large-boat category. Alternatively, 60% of the South Carolina-owned boats were under 50 feet in length compared to just 17% for out-of-state boats. The larger average size of out-of-state boats was also reflected in the engine size, number of nets, and estimated value of the boat. Most of the out-of-state boats had engines with 8 or more cylinders (60%), 4 or more nets (71%), and an estimated value greater than \$100,000 (60%).

Table 6. Characteristics of Boats Responding to Survey, 2003

	South Carolin	a Owner_	Out-of State Owner		
Boat Characteristic	Number	%	Number	%	
Length (ft.)					
Less than 50	93	60%	16	17%	
50 to 70	46	30%	35	37%	
More than 70	<u>16</u>	10%	<u>43</u> 94	46%	
Total Reporting	155		94		
Age (Years)					
Less than 10	16	11%	10	11%	
10 to 20	45	30%	18	19%	
21 to 30	55	36%	48	51%	
31 and older	35	23%		20%	
Total Reporting	35 151		<u>19</u> 95		
Hull Type					
Wood	46	30%	39	40%	
Steel	10	7%	24	25%	
Fiberglass	89	58%	18	19%	
Other		5%		15%	
Total Reporting	$\frac{8}{153}$	- , -	<u>15</u> 96	-5 , ;	
Engine Size (cyl.)					
4 or fewer	4	14%	2	3%	
6	72	51%	31	37%	
8	24	17%	14	17%	
12	25	18%		43%	
Total Reporting	$\frac{25}{140}$	1070	36 83	T3 /0	
Total Reporting	140		03		
Nets 0	5	3%	0	0%	
1	53	35%	3	3%	
2					
2 3	54 3	36% 2%	25 0	26% 0%	
		24%		71%	
4 or more	<u>36</u> 151	24%	<u>68</u> 96	/ 1 %	
Total Reporting	131		90		
Estimated Value (\$)	0.4	570/	12	1.40/	
Less than \$50,000	84	57%	13	14%	
\$50,000 - \$100,000	40	27%	24	26%	
\$100,000 - \$150,000	16	11%	17	19%	
More than \$150,000	8	5%	38	41%	
Total Reporting	148		92		

The majority of in-state (SC) boats had engines with 6 or fewer cylinders (65%), 2 or fewer nets (74%), and an estimated value less than \$50,000 (57%). The South Carolina shrimp boats were newer than those owned by out-of-state residents. However, relatively few (11%) of the boats registered to shrimp in South Carolina were less than 10 years old, and over 20% of the boats (in-state and out-of-state) were over 31 years old.

Shrimping by Boat Size. The size of the shrimp boat (and the associated engine size and number of nets) was closely related to shrimping activity by the boat. In 2002, 84% of the large boats (70 + feet) shrimped more than 100 days compared to 75% for medium-sized boats (50 to 70 feet) and 31% for small boats (less than 50 feet).

Alternatively, 58% of the small boats reported shrimping fewer than 50 days in 2002 (table 7).

A greater number of days shrimping for the large boats was associated with a larger shrimp catch and a greater share of household income from shrimping (tables 8 and 9). Shrimp catches of greater than 40,000 pounds (heads-on) in 2002 were reported by 63% of the large boats, 29% of the medium-sized boats, and 6% of the small boats. On the other hand, 68% of the small boats reported catches less than 10,000 pound in 2002 while only 24% of the medium-sized and 10% of the large boats reported catches this small. Income from shrimping was not a significant share of household income for the owners of boats less than 50 feet long. For the small boats, 54% reported a share of household income from shrimping of less than 20% for the year 2002. Shrimping was much more critical to household incomes for the owners of medium-sized and large boats. Sixty percent of the large and 52% of medium-sized boats reported that income from shrimping constituted more than 80% of household income. Another 12% to 14%

Table 7. Days Shrimped in 2002 and 2003 by Boat Length, Boats Registered in SC

	Less Than	50 Feet	50	to 70 Feet	Mor	re Than
70 Feet	Number	%	Num	nber %	No	mber
Days %	Number	70	INUII	1001 70	INUI	HIDCI
<u>2002</u>						
200 +	9	9%	19	24%	25	42%
150 - 159	8	8%	28	36%	10	17%
100 - 149	15	14%	12	15%	15	25%
50 - 99	11	11%	8	10%	5	9%
1 - 49	45	43%	7	9%	1	2%
0	<u>16</u>	15%	<u>4</u>	5%	<u>3</u> 59	5%
Total Reporting	104		78		59	
<u>2003</u>						
200 +	8	8%	22	32%	23	40%
150 - 159	10	10%	19	28%	10	18%
100 - 149	15	16%	13	19%	11	19%
50 – 99	11	11%	6	9%	7	12%
1 - 49	28	29%	2	3%	0	0%
0	<u>25</u>	26%	6	9%	_6	11%
Total Reporting	97		<u>6</u> 68		57	

Table 8. Shrimp Catch in 2002 (Heads-On) by Boats of Different Sizes

	Less than 50 Feet		50 to 70	Feet	More than 70 Feet	
Pounds	Number	%	Number	%	Number	%
200,000 +	0	0%	1	1%	1	9%
100,000 - 199,000	0	0%	4	5%	4	7%
80,000 - 99,000	0	0%	3	4%	8	14%
60,000 - 79,000	1	1%	7	10%	7	13%
40,000 - 59,000	5	5%	14	19%	11	20%
20,000 - 39,000	12	12%	18	24%	15	27%
10,000 - 19,000	14	14%	9	12%	4	7%
1,000 - 9,999	25	26%	13	18%	3	5%
1 – 999	24	25%	1	1%	0	0%
0	<u>17</u>	17%	_4		_3	5%
Total Reporting	98		74		56	

Table 9. Share of Household Income from Shrimping by Boat Size, 2002

	Less Than 50 Feet		50 to 70 Feet		More Than 70 Feet	
Share of Income	Number	%	Number	%	Number	%
80% +	21	22%	40	52%	35	60%
60% - 79%	11	11%	11	14%	7	12%
40% - 59%	3	3%	13	17%	9	16%
20% - 39%	10	10%	5	7%	1	2%
0% - 19%	52	54%	8	10%	6	10%
Total Reporting	97		77			

of the medium and large boats reported household income shares from shrimping between 60 and 80%. These findings indicate that for most of the medium and large boats, shrimping is a full-time job and a critical source of family income.

Shrimping by In-State and Out-of-State Boats. Tables 10, 11, and 12 provide comparisons of days shrimped, shrimp catch, and share of household income from shrimping for boats owned by South Carolina and out-of-state residents. As noted earlier, the in-state boats were, on average, smaller than the out-of-state boats, which was reflected in a lower number of days shrimped and smaller catch for boats owned by South Carolina residents. Specifically, 48% of the South Carolina owned boats shrimped more than 100 days in 2002 and 36% of the in-state boats caught more than 20,000 pounds of shrimp (heads-on) in 2002. On the other hand, over 10% of the responding South Carolina owned boats reported no days shrimped in 2002 and 20% stated that they did not plan to shrimp in 2003. Among the out-of-state boats, 76% reported shrimping 100 days or more in 2002 and 71% stated catches of 20,000 pounds or more.

Shrimping was an important source of household income (greater than 40%) for approximately 52% of the South Carolina shrimpers. For almost 40% of in-state shrimpers, however, shrimping contributed less than 20% of household income. The owners of out-of-state boats registered in South Carolina relied on shrimping for a larger share of household income than in-state boat owners. Approximately 85% of the out-of-state boats reported

<u>Full-Time Shrimpers in South Carolina</u>. The survey findings for days shrimped, shrimp caught, and share of household income indicate that many of the South Carolina boat owners were part-time or recreational shrimpers in 2002 and 2003. Of interest from a public policy perspective is an estimate of the number of full-time shrimpers in the state. The full-time shrimpers will be the individuals most affected by the policies and the programs

Table 10. Days Shrimped in 2002 and 2003, South Carolina Boats and Out-of-State Boats

	South Carolina		Out-of S	State	
Days	Number	%	Number	%	
Days, 2002					
200 +	18	12%	36	38%	
150-159	24	17%	22	23%	
100-149	27	19%	14	15%	
50-99	13	9%	11	12%	
1-49	45	31%	7	7%	
0	<u>18</u>	12%	4	4%	
Total Reporting	145		<u>4</u> 94		
Days, 2003					
200 +	17	13%	38	44%	
150-159	20	15%	18	21%	
100-149	27	20%	11	13%	
50-99	14	11%	10	11%	
1-49	28	21%	0	0%	
0	<u>27</u>	20%	<u>10</u>	11%	
Total Reporting	133		87		

Table 11. Shrimp Catch in 2002 (Heads-on) by South Carolina Boats and Out-of-State Boats

	South Carolina		Out-of S	State	
Pounds	Number	%	Number	%	
200,000 +	0	0%	2	2%	
100,000 - 199,000	3	2%	6	7%	
80,000 - 99,000	4	3%	6	7%	
60,000 - 79,000	4	3%	11	13%	
40,000 - 59,000	12	9%	18	20%	
20,000 - 39,000	26	19%	19	22%	
10,000 - 19,000	16	17%	11	13%	
1,000 - 9,999	30	22%	11	13%	
1 – 999	24	17%	0	0%	
0	<u>19</u>	14%	_4	5%	
Total Reporting	138		88		

programs targeted at improving the profitability and sustainability of the state's shrimping industry.

For this study, we classified a shrimper as full-time if he or she (1) shrimped 100 or more days in 2002 and/or (2) landed 20,000 pounds or more (heads-on) in 2002. As noted earlier, days shrimped and shrimp caught varied significantly by boat size. Thus, we estimated the total number of full-time shrimpers based on the percentage (or share) of full-time shrimpers in each of the three boat-size categories as indicated by the survey results. For example, among in-state survey respondents, 19 out of the 93 small boats (20% or a .20 share) reported shrimping 100 or more days in 2002 (refer to table 13). Next, we assumed that the 20% share for the survey respondents was representative of all the small in-state boats registered in 2003 (247 boats). Twenty percent of 247 was approximately 50 boats. Thus, we estimated that 50 of South Carolina's 247 small boats shrimped for 100 or more days in 2003. Following the same procedure, we estimated that 71 of the registered medium-sized boats and 21 of the large boats were full-time. The estimated total number of full-time boats based on days shrimped was 142 (50 + 71 + 21).

A second estimation of the number of full-time shrimpers was based on the pounds of shrimp landed. We assumed that full-time shirmpers caught 20,000 pounds or more in 2002, thus 18% of the small boats, 63% of the medium-sized boats, and 83% of the large boats were full-time based on survey responses. Using the above shares, we estimated that 122 of the 2003 in-state boats were full-time (45 small, 59 medium, and 18 large).

Table 12. Share of Family Income from Shrimping, South Carolina Boats and Out-of-State Boats, 2002

G1	South Carolina		Out-of State		
Share Of Income	Number	%	Number	%	
80% +	49	35%	52	55%	
60% - 70%	17	12%	10	11%	
40% - 59%	7	5%	18	19%	
20% - 39%	12	9%	4	4%	
0% - 19%	_54	39%	<u>10</u>	11%	
Total Reporting	139		94		

Table 13. Estimations for the Number of Full-Time Shrimp Boats in South Carolina Based on Days Shrimped and Shrimp Caught in 2002

I.	(A) Boat Size Category	(B) Share of Survey Respondents that Shrimped 100 + Days	(C) Boats Registered To In-State Residents, 2003	(D) Estimated Full- Time Boats (B x C)
	Less than 50 ft.	.20	247	50
	50 to 70 ft.	.76	93	71
	More than 70 ft.	.94	22	<u>21</u> 142
	(A)	(B) Share of Survey	(C)	(D)
II.	Boat Size	Respondents that Landed	Boats Registered To In-State	Estimated Full- Time Boats
	Category	20,000 lbs. of shrimp or more (heads on)	Residents, 2003	(B x C)
	Less than 50 ft.	.18	247	45
	50 to 70 ft.	.63	93	59
	More than 70 ft.	.83	22	<u>18</u> 122

Summary

Boats registered to shrimp in South Carolina declined from 730 in 2002 to 535 in 2003. Approximately 60% of the registered boats were owned by South Carolina residents, and over 30% of the South Carolina boats were more than 50 feet in length.

Based on days shrimped and shrimp caught, we estimated that 120 to 140 of the South Carolina owned boats were full-time shrimpers.

The number of registered boats and full-time shrimpers in South Carolina is anticipated to decline in the future as a result of higher fuel prices and increased competition from imported shrimp. The South Carolina shrimp survey requested suggestions for changes needed in the industry to improve the financial well-being of the shrimpers and sustainability of the industry (table 14). The predominant responses were to increase shrimp prices and to reduce imports. Current policy is focusing on raising the price of domestic shrimp through marketing programs promoting wild-caught American shrimp and the enforcement of anti-dumping legislation against non-market shrimp exporting nations. The impact of these efforts on shrimp prices at the dock will need to be significant if further shrinkage of the state's shrimp industry is to be halted.

Table 14. Suggestions for Changes Needed To Improve the Financial Well-Being of the South Carolina Shrimp Industry.

Number of Times Mentioned On Surveys* **General Suggestion Increase Shrimp Prices** 92 79 Reduce Imports/Place Tarriffs on Imports Reduce Shrimp Baiting 22 Development Marketing/Education Programs 22 Reduce Government Regulations 8 Limit Entry to SC Shrimping 7 Protect the Shrimping Habitat (marshes & coastal waters) 7 Reduce Fuel Prices 6 **Provide Government Price Supports** 2 Provide Local Processing Facility 2 Improve Docking and Unloading Facilities 1 Increase Interstate Cooperation 1

^{*}Many surveys provided more than one suggestion for changes made.

A. Vessel Characteristics

1.	Vessel length ft.	
2.	Vessel age	
3.	Vessel hull material (wood, steel, fiberglass)	
4.	Vessel engine size in cylinders 4, 6, 8, 12, other	
5.	Number of nets on vessel	
6.	Approximate current value of vessel, gear, and electronic equipment	
7.	Approximately how many days in total did you go shrimping with this vessel in 2002?	
8.	Approximately how many days do you plan to go shrimping with this vessel in 2003?	
9.	At what docks did you unload most of your shrimp in 2002?	

B. Returns to Vessel in 2002

	1.	How many pounds of shrimp (heads on) did you land with this vessel in 2002? pounds
	2.	Approximately what percentage of your 2002 total household income was derived from shrimp trawling?
	3.	Approximately what percentage of your total household income was derived from oysters, crabs, fin fish and other related activities? %
l •	Fut	ture of South Carolina Shrimping
	1.	Do you plan to shrimp with this vessel in 2004? (If no, please note why not).
	2.	In your opinion, what changes are needed to improve the financial well-being of the SC shrimp industry?

Thank you for your valuable time in completing this questionnaire and returning it in the provided postage-paid envelope.

The information you provide will be kept in strictest confidence.