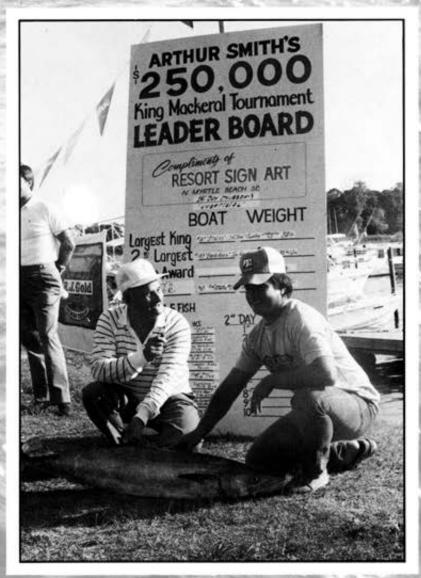
A Socio-Economic Survey of the Seventh Annual Arthur Smith King Mackerel Tournament

Charles J. Moore



South Carolina Marine Resources Center Technical Report Number 58 May, 1984



South Carolina Wildlife and Marine Resources Department

A SOCIO-ECONOMIC SURVEY OF THE SEVENTH ANNUAL ARTHUR SMITH KING MACKEREL TOURNAMENT

by

Charles J. Moore

Recreational Fisheries Office of Conservation, Management and Marketing

Marine Resources Division South Carolina Wildlife and Marine Resources Department Charleston, South Carolina 29412

> Technical Report Number 58 South Carolina Marine Resources Center

CONTENTS

		PAGE
1.	INTRODUCTION	1
II.	METHODOLOGY	1
III.	RESULTS	1
	A. Number of Participants	1
	B. Vessel Information	1
	C. Angler Information	3
	1. Age, Occupation and Income Range	3
	2. Catagorization of Interviewees	3
	3. Residence by State and County	5
	4. Number of Days Spent in Little River/Murrells Inlet Area	8
	5. Lodging	8
	6. Distance Traveled to Tournament by Car, Recreational Vehicle, and by Boat	9
	7. Persons Accompanying Interviewees to the Tournament	9
	8. Tournament Rating and Past Participation in Tournaments	9
	D. Economic Information	10
	E. Catch Information	11
IV.	SUMMARY AND CONCLUSIONS	12
	ACKNOWLEDGEMENTS	12
	LITERATURE CITED	12
	APPENDITY FIGURE	13

LIST OF TABLES

TABLE		PAGE
1.	Distribution of makes of boats on official 1983 entry forms (N=872) and number of boats used by interviewees during 1983 (N=345) and 1979 (N=378)	2
2.	Occupation and household income range of interviewees during 1983 tournament	4
3.	Distribution of interviewees by categorization during 1979 and 1983	5
4.	A comparison of vessel registration by state during the 1979 (N=459) and 1983 (N=872) tournament	5
5.	Number of interviewed anglers by state of residence during 1979 (N=416) and 1983 (N=401) and the estimated total number of anglers participating from each state	6
6.	Distribution of interviewees from South Carolina by county during 1979 (N=181) and 1983 (N=170)	6
7.	Distribution of interviewees from North Carolina by county during 1979 (N=152) and 1983 (N=157)	7
8.	Distribution of accomodations used by interviewees during 1979 (N=405) and 1983 (N=393)	9
9.	Number and percentages of interviewees that brought other persons (by categories) to the tournament with mean number and range of those persons brought to the tournament and an estimate of total number of others brought to the Little River area by interviewees during 1979 and 1983	10
10.	Interviewee's personal expenditure results for 1979 and 1983	11
11.	Tournament catch results	12

LIST OF FIGURES

IGU	RE		PAGE
	1.	Length frequency distribution of boats registered and boats used by interviewees during 1979 (above) and 1983 (below)	3
	2.	Frequency distribution of boat ages used by interviewees during 1979 (left) and 1983 (right)	4
	3.	Age frequency distribution of anglers interviewed during 1983 tournament	4
	4.	Percent frequency distribution of numbers of days interviewees spent in Little River/Murrells Inlet area by interviewee categorization during 1979 (left) and 1983 (right)	8
	5.	Frequency distribution of distance (25 mile intervals) traveled by interviewees to the tournament during 1979 and 1983 by car (A), by boat (B), and by a combination of car and boat (C)	9
	6.	Percent frequency distributions of number of family members (A), relatives (B), friends (C), business associates (D) brought to the tournament during 1979 and 1983	10
	7.	Frequency distributions of number of other tournaments fished by interviewees in South Carolina and elsewhere during 1979 and 1983	10
	8.	Weight frequency distribution (2 pound intervals) of king mackerel entered in the tournament during 1979 and 1983	11

INTRODUCTION

The Arthur Smith King Mackerel Tournament is based on the fall run of king mackerel (Scomberomorus cavalla) along the South Carolina coast and has been an annual event since 1977. During the first six years (1977-1982) this tournament was held in the Little River - North Myrtle Beach area. During 1983 it was expanded to include a second point of departure from Murrells Inlet, approximately 30 miles to the south of Little River. This tournament has gained considerable notariety over the past seven years with 407, 522, 598, 640, 846, 888, and 872 boats participating, respectively, each year. Prize money has been increased from \$30,000 in 1977 to \$250,000 in 1983. It has been sanctioned by the International Game Fish Association and promoted for the past five years as the world's largest saltwater fishing tournament.

A socio-economic survey of the 1979 tournament (Smith and Moore, 1980) estimated that 1,844 anglers participated in the two day event. These anglers spent an estimated \$650,000 and brought an additional 4,740 individuals to the area. These individuals spent \$229,000 for a combined direct economic impact of approximatley \$880,000 to the Little River, S.C. area during 1979.

During 1983, a socio-economic study of this tournament was repeated. Methods were similar to those used four years earlier, although several additional questions were asked and other questions were combined or omitted. This technical report presents the results obtained from the 1983 survey and provides comparisions with results obtained during 1979.

III. METHODOLOGY

The Seventh Annual Arthur Smith King Mackerel Tournament was held on September 29-30, 1983. The methods utilized in this survey were similar to those reported by Smith and Moore (1980) for the same tournament held in 1979. During 1979, interviews were conducted during the weigh-in period (1530-1800 EDT) at the end of each day's competition. Interviewers intercepted anglers at the weigh-in station or as the boats returned to their docks. During 1983, all interviews were conducted on the day following the second fishing day as anglers arrived at the awards party. Potential interviewees were aksed if they had fished in either day's competition. A "no" response terminated the interview. If the answer was positive, the fishermen were asked to complete the interview form (Appendix Figure 1) and return it to the interviewer.

Boats entering the competition were restricted both years to 18 ft. in length or greater. Number, length and state of registration of boats entered in each tournament were obtained from official registration forms. Numbers and weights of King mackerel entered in the tournament were obtained from official weigh-in forms. Estimations of participation levels and expenditures were expanded based on the mean numbers of anglers and mean expenditures of interviewees multiplied by the number of boats officially registered.

III. RESULTS

A. NUMBER OF PARTICIPANTS

Nearly all anglers interviewed during both years (1979-80.9%, 1983-92%) indicated that they fished both days of the tournament. During 1979, the questionnaire did not ask for the number of anglers fishing from the interviewee's vessel. To rectify this oversite a random number of interviewees from different boats (N=59) were asked this question orally. A mean value of 4.0 anglers/boat (.95% confidence value of 2.6 and 5.4) was obtained. The official registration forms indicated that 461 boats registered for the competition. Therefore, we estimated that a total of 1844 anglers participated during the 1977 tournament.

During 1983, interviewess (N=387) indicated that a mean of 4.37 anglers fishing per vessel (number of anglers fishing from boat - frequency of response; 1-2; 2-22; 3-63; 4-137; 5-70; 6-63). As 872 boats registered during the 1983 tournament a total of 3,811 anglers (4.37 x 872) were estimated to have participated. A total of 417 interviews were obtained during 1979, or 23% of the projected number of anglers who participated. During 1983, a total of 408 anglers were interviewed or 10.7 percent of those who fished during the tournament.

B. VESSEL INFORMATION

The make of boats registered during the 1979 and 1983 tournaments is given in Table 1. A total of 61 boat manufacturers in 1979 and 69 boat manufacturers during 1983 were represented. During both years, over 50% of the interviewees fished from one of eleven makes of boats, with eight of these manufacturers being the most frequently fished both years. There is a good correlation between the number of boats by manufacturers officially registered in the tournament during 1983 and the numbers reported utilized by interviewees that year.

The official registration forms indicated that boats utilized in the tournament ranged from 18 to 54 feet during 1979 and from 18 to 85 feet during 1983. During 1979 the length frequency distribution of boats

Table 1. Distribution of makes of boats on official 1983 entry forms (N=872) and number of boats used by interviewees during 1983 (N=345) and 1979 (N=378).

	Number Entered	0040501 733	umber rviewed		Number Entered		viewed	
BOAT NAME	1983	1983	1979	BOAT NAME	1983	1983	1979	
Wellcraft	47	39	28	Aristocrat	1	5	2	
Bertram	44	21	32	Arrowglass	1	0	0	
Grady-White	37	23	20	BaJa	1	0	0	
Mako	28	22	28	Bonanza	1	0	0	
Sea Ox	24	8	2	Calypso	1	4	0	
Sea Star	24	6	16	Caravelle	1	0	0	
Chris Craft	23	10	9	Chappare1	1	1	11	
Sea Ray	22	15	5	Catline	1	0	0	
Hydro-Sport	22	7	14	Concorde	1	0	0	
Hatteras	14	12	7	Crestliner	1	0	0	
Boston Whaler	20	8	0	Egg Harbor	1	1	0	
Aquasport	19	10	5	Fibra	1	1	3	
T Bird	18	3	4	Flare	1	0	0	
Bayliner	16	4	4	Fleetwing	1	0	0	
Cobia	16	3	10	Fountain Exec.	1	0	0	
Dixie	16	8	0	Glastex	1	1	0	
Glassmaster	16	10	3	Glaspar	1	3	1	
Glastron	15	6	0	Harkers Island	1	0	2	
Robalo	15	1	11	Harris Craft	1	0	0	
Sportscraft	15	3	8	Hurricane	1	0	0	
Star Craft	15	9	0	Lindsey	1	0	0	
Tiara	15	3	0	Lone Star	1		0	
Winner	15	4	2	Maxim	1	0	o	
Reinell	14	2	3	Monarch	1	0	0	
Sea Craft	14	6	7	Ocean Master	1	1	0	
Trojan	14	0	9	Omega	1	2	o	
Custom	13	0	4	Pola Craft	1	0	3	
Formula	13	4	5	Penn Yan	1	2	ő	
John Allmand	13	5	0	Post Renken	1	6	2	
Pacemaker	13	1	6		î	o	ō	
Galaxy	12	6	10	Sabre	î	2	4	
Proline	12	1	9	Sea Sport	7	o	o	
Apollo	11	2	2	Silverline Simmons	1	0	o	
Cruiser	11	0	0	Stamas	1	0	0	
Larson	11	4	0	Star Chief	î	o	0	
Luhrs	11	2 2	2	Torro	î	0	0	
Marquis	11	2	6	West Wind	î	0	0	
North American	11	ő	6	Topaz	0	0	5	
Scottie Craft	11	o	11	Marlin	0	0	2	
Silverton	11	1	2	Starfire	0	0	2	
Thompson	10	1	3	Uni-Jack	0	0	2	
Carver	10	ō	ő	Atlantic	0	1	1	
Correct Craft MFG	10	1	ő	Double Eagle	0	0	1	
Phoenix	10	ō	o	Evanrude	0	3	1	
Slickcraft	10	5	6	Glasscraft	0	0	1	
T. Craft	10	í	0	Handel	0	0	1	
Uniflite	10	2	4	King Craft	0	0	1	
Drummond	9	1	0	Mitchell	0	0	1	
Fiberfoam	9	î	o	Woods	0	0	1	
Homemade	5	ō	4	AMC	0	1	0	
Manatee	2	1	3	Catch 22	0	1	0	
McKee	2	2	ō	Super Craft	0	1	0	
No. 1	2	1	o	Pipestone	0	1	0	
Owens	2	1	o	Continental	0	2	0	
Regal	2	o	0	Richfield	0	1	0	
Seabird	2	4	3	Privateer	0	1	0	
Sea Sake	2	ō	ő	Safety Craft	0	1	0	
State Craft		o	o	Nitagade	0	1	0	
가면서 (프로마스 라이) 전 전 (프로프) (co.	2 2	1	o	Swinger	0	1	0	
Sting Ray Altra	1	2	o	Sea Start	0	1	0	
AMF	1	1	ő	July Comp.	DMC			
Angler	î	2	1					

registered in the tournament and those used by interviewees were comparable (Figure 1), however, during 1983, this comparison was not as good. There was a significant increase in the number of boats 18 to 20 feet in length registered during the 1983 tournament, 43.4% in 1983 compared to 11.1 percent during 1979. However, this was not reflected by those fishermen interviewed, as only 8.6% indicated they fished from such a boat during 1983 compared to 7.6% during 1979.

Similarly, vessels larger than 35 feet in length, officially registered during 1983, increased over 1979 but this was not reflected by those anglers interviewed.

The age of vessels utilized by interviewed anglers during 1979 and 1983 are compared in Figure 2. During the 1979 tournament, the frequency of older boats decreased each year with the greatest number of vessels being built during 1978-1979. However, during 1983, the highest frequency of boats continued to be 1978 and 1979 models. Nearly 60% of those anglers interviewed during 1979 fished from vessels less than six years old where as only 31% of those anglers during 1983 fished from such vessels.

C. ANGLER INFORMATION

Age, Occupation and Income Range

During 1983, interviewees were asked their age, (Figure 3) occupation and income range (Table 2). The mode age of interviewees was 40 years with approximately 60% of the interviewed being between 30 and 45 years of age. Most interviewees classified themself as either professional (31.5%) or business owners (20.5%). Less than 12% of the interviewees indicated a total household income of less than \$20,000 annually. More than 20% indicated a household income in excess of \$50,000.

2. Catagorization of Interviewees

When asked to catagorize themselves, a majority (83.9%-1979 and 82.8%-1983) of the interviewees indicated they were either an owner/captain of the boat, a member of the crew or an invited guest (Table 3). Interviewees reporting to be either an owner, captain or charter guest comprized only 16% during 1979 and 15% during 1983.

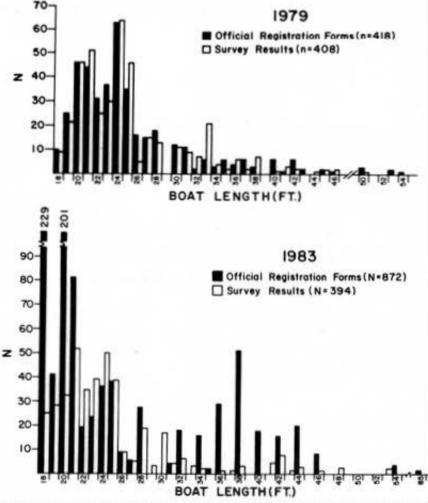


Figure 1. Length frequency distribtuion of boats registered and boats used by interviewees during 1979 (above) and 1983 (below).

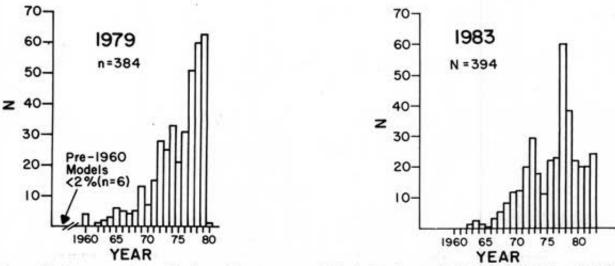


Figure 2. Frequency distribution of boat ages used by interviewers during 1979 (left) and 1983 (right).

Table 2. Occupation and household income range of interviewees during 1983 tournament.

Occupation	Income Not Indicated	20	21-30	Thousa	nds of Do 41-50	llars 50	Total	% Total
	(T C) (C) (C) (C)	10000			0.000	74 11 11 12		14
Skilled Service Technician	3	13 6	21 9	11 5	6	2	56 27	6.8
Professional	2	5	31	31	22	35	126	31.5
Clerical	-		1	31	22	33	1	.1
Manager	3	4	9	15	10	5	46	11.5
Business Owner	6		15	19	8	31	82	20.5
Police, Fire, etc.		ĭ	5	2	ĭ	1	10	2.5
Farmer	2	3 1 7	5		1		11	2.8
Teacher		57	1	1			2	.1
Student		2		89			2	.1
Retired	2	2 2 4	2	2	4	6	18	4.5
Other	6	4	3	2 5	1		19	4.8
Total	25	47	98	91	56	83	400	
% Total	6.2	11.8	24.5	22.8	14.0	20.8		
	100							
	90-							
	, 80-							
	70-	١	\dashv 1		19	83 (n=40	00)	
	OF ANGLERS							
	L 50-							
		П		Н				
	W 30-			1 1	_			
	20-	-1-1						
		- 1		1.1				
	10-		1 1					

AGE OF ANGLERS
Figure 3. Age frequency distribution of anglers interviewed during 1983 tournament.

Table 3. Distribution of interviewees by categorization during 1979 and 1983.

	Num	ber	% Frequency		
Catagorization	1983	1979	1983	1979	
Owner/Captain	120	122	30.4	29.9	
Crew	116	121	29.4	29.7	
Invited Guest	91	99	23.0	24.3	
Owner	34	36	8.6	8.8	
Captain	9	15	2.3	3.7	
Charter Guest	17	15	4.3	3.7	
No Response	8		2.0	-	
	395	408	100.0	100.1	

Residence by State and County

Nearly equal numbers of South Carolina and North Carolina boats registered both years. During 1983, boats from 23 different states officially registered compared to 10 during 1979. (Table 4) The frequency of interviewed anglers by state of residence along with the estimated number of anglers coming from that state is presented in Table 5. During both 1979 and 1983, South Carolina and North Carolina anglers were interviewed in nearly equal numbers and together made up over 85% of all anglers interviewed. During 1983, more North Carolina anglers (1,776) were estimated to have participated than South Carolina anglers (1,616).

Distribution of interviewees during 1979 and 1983 by South Carolina and North Carolina counties are listed in Table 6 and 7, respectively. During 1979, 61% of South Carolina interviewees were from three counties (Horry, Charleston and Richland) compared to 1983 when only 40% were residents of these three counties. Twenty-one additional counties were represented during 1979 compared to 27 during 1983.

Interviewees during 1979 from North Carolina resided in one of 31 counties compared to 38 counties in 1983. A total of 52.0% of North Carolina interviewees during 1979 resided in one of five counties (Mecklenburg, Guilford, New Hanover, Cumberland and Gaston) but only 33.7% indicated these counties as their residence during 1983.

Table 4. A comparison of vessel registration by state during the 1979 (N=459) and 1983 (N=872) tournament.

	Nu	mber	% Free	quency
STATE	1979	1983	1979	1983
South Carolina	220	370	47.9	44.6
North Carolina	203	342	44.2	41.2
Florida	3	30	1	3.6
Virginia	16	19	3.5	2.3
Georgia	10	16	2.2	1.9
Maryland	1	10	1	1.2
Tennessee	3	7	1	1
Pennsylvania		7		1
Ohio		6		1
New Jersey		6		1
Texas		5		1
West Virginia		5		1
Michigan		5		1
Oklahoma		5		1
Wisconsin		4		1
New York	1	3		1
Delaware	1	3		1
Louisiana		3		1
Mississippi		3		1
Arkansas		3		1
Illinois		2		1
Maine		1		1
California		1		1
Connecticut	1		1	

Table 5. Number of interviewed anglers by state of residence during 1979 (N=416) and 1983 (N=401) and the estimated total number of anglers participating from each state.

	Num	ber				
STATE	1979	1983	1979	1983	1979	1983
South Carolina	207	170	49.8	42.4	918	1616
North Carolina	164	187	39.4	46.6	727	1776
Virginia	23	11	5.5	2.7	101	103
Florida	3	8	1	2.0	13	76
Maryland	1	6	1	1.5	4	57
Georgia	5	4	1.2	1	22	38
New Jersey	4	4	1.0	1	18	38
Tennessee	2	3	1	1	18 9	29
Texas		3	1	1		29
New York	2	2	1	1	9	19
Delaware	2		1		9	
Massachussetts	1		1		4	
Pennsylvania	1		1		4	
West Virginia	1		1		4	
Connecticut		1		1		10
Colorado		1		1		10
Canada		_1	· ·	1	0	10
Total	416	401	100	100	1844	3811

Table 6. Distribution of interviewees from South Carolina by county during 1979 (N=181) and 1983 (N=170).

	Num	% Free	% Frequency			
COUNTY	1979	1983	1979	1983		
Horry	55	42	30.4	24.7		
Charleston	42	22	23.2	12.9		
Richland	14	8	7.7	4.7		
Beaufort	9	5 2	5.0	2.9		
Marion	9	2	5.0	1.2		
Georgetown	8	7 3 7 9 2 7 3 2 2 2	4.4	4.1		
Berkely	7	3	3.9	1.8		
Darlington	6	7	3.3	4.1		
Florence	6	9	3.3	5.3		
Greenville	4	2	2.2	1.2		
Lexington	4	7	2.2	4.1		
York	4	3	2.2	1.8		
Orangeburg	4 3 2 2 1	2	1.7	1.2		
Dorchester	2	2	1.1	1.2		
Lancaster	2	2	1.1	1.2		
Clarendon	1		1			
Dillon	1	4	1	2.4		
Greenwood	1		1			
Lee	1		1			
Newberry	1		1			
Spartanburg	1	5	ī	2.9		
Marlboro	77	4		2.4		
liken		7 .		4.1		
umter		7		4.1		
Anderson		4		2.4		
lampton		i		1		
airfield		î		ĩ		
Chesterfield		î		1 1 1 1		
Cershaw		î		î		
aurens		î		î		
/illiamsburg		î		î		
o County		11		6.5		

Table 7. Distribution of interviewees from North Carolina by county during 1979 (N=152) and 1983 (N=157).

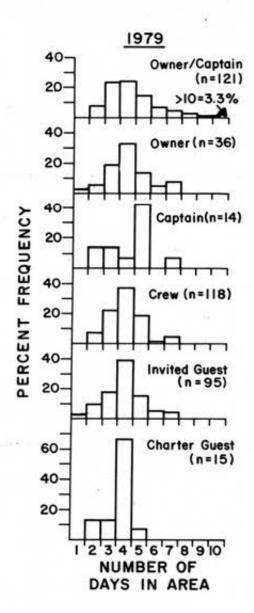
	Nu	mber	% Freq	uency	
COUNTY	1979	1983	1979	1983	
Mecklenburg	26	42	17.1	22.5	
Guilford	22	10	14.5	5.3	
New Hanover	13	5	8.6	2.7	
Cumberland	9	3	5.9	1.6	
Gaston	9	3	5.9	1.6	
Columbus	7	1	4.6	1	
Brunswick	7 6 6 5 5 4 4 4 3 3 3 2 2	9	3.9	4.8	
Forsyth	6	3	3.9	1.6	
Robeson	6	3	3.9	1.6	
Catabawa	5	5	3.3	2.7	
Union	5	4	3.3	2.1	
Davidson	4	8	2.6	4.3	
Johnston	4		2.6	1	
Rowan	4	4	2.6	2.1	
Moore	3	6	2.0	3.2	
Onslow	3	100	2.0	3270	
Wake	3	2	2.0	1.0	
Ashe	2	2072	1.3		
Carbarrus	2	5	1.3	2.7	
Stanley	2	6	1.3	3.2	
Bladon	1	1	1	1	
Carteret	1	6	1	3.2	
Cleveland	1	1	1	1	
Craven	1		1		
Durham	1	1	1	1	
Iredell	1	4	1	2.1	
Lee	1		1		
Orange	1	2	1	1.0	
Pamlico	1		1		
Randolph	1	5	1	2.7	
Scotland	1	5	1	2.7	
Macon		3		1.6	
Harnett		2		1.0	
Richmond		3		1.6	
Stokes		2		1.0	
Wilson		1		1	
Henderson		1		1	
Pitt		1		1	
Anson		1		1 1 1	
Wayne		1		1	
Alexandre		5 5 3 2 3 2 1 1 1		1	
Yadkin		2		1.0	
Montgomery		1		1	
Alamance		1		1	
Unknown		18		9.6	

Number of Days Spent in Little River/ Murrells Inlet Area

During both years a majority of the interviewees (89.7% in 1979 and 85.1% in 1983) reported they traveled to the Little River/ Murrells Inlet area specifically to fish in the tournament. Percent frequency distributions of time spent in the area as a result of the tournament by angler catagorization are compared in Figure 4 for 1979 and 1983. The mode (number of days most frequently given) for each distribution both years was between 3-5 days; the mean number of days spent in the area for all interviewees was 3.8 days in 1979 and 4.1 in 1983.

5. Lodging

A comparison of the lodging used by interviewees during the 1979 and 1983 tournaments is made in Table 8. The majority of anglers interviewed (69.2% in 1979 and 72.1% in 1983) lodged at home or in a motel/hotel. The number of anglers lodging at home increased from 29.6% in 1979 to 43.3% during 1983. The number of anglers lodging in a motel/hotel decreased from 39.5% in 1979 to 28.8% 9n 1983. The number of anglers lodging in a rental house/cottage, condominium, campground, motor home or who remained on their boat were similar both years.



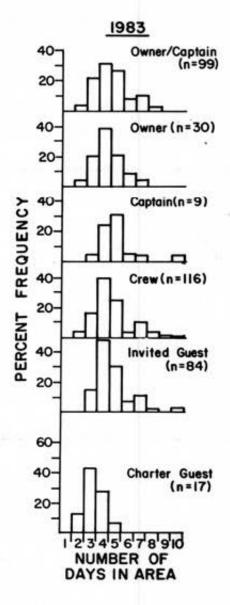


Figure 4. Percent frequency distribution of numbers of days interviewees spent in Little River/Murrells Inlet area by interviewee categorization during 1979 (left) and 1983 (right).

Table 8. Distribution of accommodations used by interviewees during 1979 (N=405) and 1983 (N=393).

	Num	ber	% Frequency		
Accomodation	1979	1983	1979	1983	
Home	122	170	29.6	43.3	
Motel/Hotel	160	113	39.5	28.8	
Rental House/Cottage	59	38	14.6	9.7	
Boat	29	18	7.2	4.6	
Condominium	17	27	4.2	6.9	
Camper/Campground	13	12	3.2	3.1	
Motor Home	6	2	1.5	1	
Trailer	1	13	1	3.3	

Distances Traveled to Tournament by Car, Recreational Vehicle and by Boat

Most interviewees during 1979 (85.3%) and 1983 (92.0%) indicated they traveled to the tournament by car. Frequency distributions of distances traveled to the tournament by car, by boat, by a combination car and boat and by recreational vehicle is presented in Figure 5. Of those anglers traveling by car, 38% in 1979 and 30.6% in 1983 had traveled less than 100 miles to the Little River area, while 77% in 1979 and 78% in 1983 came from within a 200 mile radius.

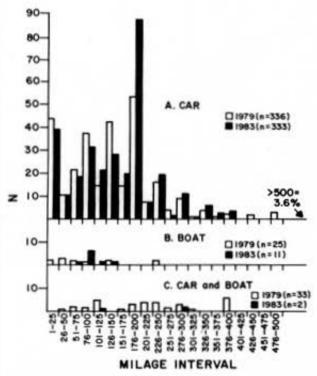


Figure 5. Frequency distribution of distance (25 mile intervals) traveled by interviewees to the tournament during 1979 and 1983 by car (A), by boat (B), and by a combination of car and boat (C).

Persons Accompanying Interviewees to the Tournament

The number and percentage of interviewees that brought immediate family members, other relatives, friends and business associates to the tournament during 1979 and 1983 were nearly identical (Table 9). Frequency percent distribution of family members, relatives, friends and business associates brought to the tournament each year is presented and compared in Figure 6. During both years over onethird of the anglers interviewed brought approximately 3.5 friends each and another third brought approximately 2.5 family members. A total of 4,740 individuals during 1979 and 9,958 individuals during 1983 were estimated to have been brought to the tournament area each year.

8. Tournament Rating and Past Participation in Tournaments

Anglers were asked to rate the tournament on a scale of 1 (worst) to 10 (best). The mean rating given by interviewees was 8.4 in 1979 and 7.7 in 1983. The great majority (95.8% in 1977 and 92.3% in 1983) of interviewees reported they planned to fish in the Arthur Smith King Mackerel Tournament in the next year.

During both years, most anglers had not participated in other saltwater fishing tournaments. During 1977, only 27.1% and during 1983, only 20.0% of the interviewees indicated they had fished in one or more South Carolina fishing tournaments that year, while 19.9% during 1977 and 16.0% during 1983 had fished in tournaments elsewhere that year. Frequency distributions of the number of other tournaments fished by these anglers each year are compared in Figure 7.

Table 9. Number and percentages of interviewees that brought other persons (by categories) to the tournament with mean number and range of those persons brought to the tournament and an estimate of total number of others brought to the Little River area by interviewees during 1979 and 1983.

30.4 (C			Percentage a Interviewee Mean No. of		Estimated No. of Other Brought to			
	Interv	iewees	Bringi	ng Others	Others	Brought	Little	River Area
CATEGORY	1979	1983	1979	1983	1979	1983	1979	1983
Friends	164	144	39.3	36.5	3.4	3.5	2464	4869
Family Members	134	135	32.1	34.2	2.5	2.3	1480	2998
Business Associates	29	23	7.0	5.8	4.1	6.1	529	1348
Other Relatives	21	31.	5.0	7.8	2.9	2.5	267	743
Total							4740	9958

^{*} Estimate obtained by multiplying mean number of others brought to tournament (column 3) by the percent of interviewees bringing guest (column 1) times the estimated total number of fishermen during 1979 (N=1844) and 1983 (N=3811).

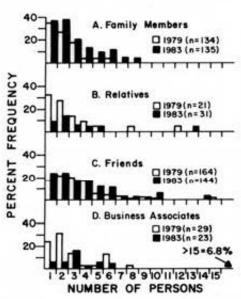


Figure 6. Percent frequency distributions of number of family members (A), relatives (B), friends (C), business associates (D) brought to the tournament during 1979 and 1983.

D. ECONOMIC INFORMATION

During 1979 and 1983 interviewees were requested to estimate their personal tournament expenditures for 16 individual items (Table 10). The total expended by interviewees for all items was \$149,413 during 1979 and \$231,057 during 1983.

The total expenditures for all tournament participants both years was established by dividing the total expenditure of interviewees by the estimated percentage of anglers interviewed.

Grand Total of Interviewee	•	Estimated Survey		Estimated Total
Expenditure	-	Coverage	-	Expenditures
1979 \$149,412		0.23		\$650,000
1983 \$231,057		0.10		\$2,310,570

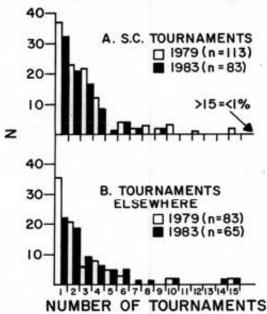


Figure 7. Frequency distributions of number of other tournaments fished by interviewees in South Carolina and elsewhere during 1979 and 1983.

In an effort to estimate additional expenditures made by other members of the interviewees party that were brought to the tournament area during the 1979 tournament, a dollar figure (\$202) was used which has been suggested as the average vacation trip expenditure of South Carolina residents traveling in South Carolina (Woodside, Moore, and Etzel, 1980). By multiplying the percentage of interviewed anglers that had brought other individuals to the area (61.6%) by the estimated number of anglers participating in that tournament (N=1844), an additional 1,136 "parties" were estimated to have also been attracted to the area. This estimate (1,136) multiplied by the average expenditure (\$202) during South Carolina vacation trips, predicted that an additional \$229,000 had been expended by those individuals coming with tournament participants.

During 1983, a similar percentage of anglers (60.6%) reported bringing others family members, friends, business associates, etc.) with them to the tournament as had done so during 1979 (61.6%). An estimated total of 381 anglers participated during 1983, projecting that 2,309 (3811 x 60.6%) additional parties were attached to the area. Because an up-to-date estimate of the average per trip expenditure by South Carolina residents traveling in South Carolina was not available, the \$202 estimate was adjusted using a yearly increase of ten percent. This amount (\$296) multiplied by the estimated number of additional "parties" (2309), indicates that approximately \$683,464 in additional monies was spent during the

1983 tournament.

The use of the \$202 value and inflating it ten percent a year from 1979 to 1983 has several obvious shortcomings. The Woodside et al. (1980) study was designed to evaluate vacation parties while this study dealt with fishing parties. The former study focused on South Carolina residents traveling in their home state while over 40% of the interviewees during this study both years were from North Carolina. For these reasons, it is felt that these estimates represent minimal figures but provide the best (only) estimate available.

Table 10. Interviewee's personal expenditure results for 1979 and 1983.

				enditure	Tot	
	100000000000000000000000000000000000000	Number		Sum of Expense/N		iture
ITEM	1979	1983	1979	1983	1979	1983
Boat, oil and gas	308	174	93	241	28,644	41,934
Car, oil and gas	310	318	34	58	10,540	18,444
Lodging	197	159	87	216	17,139	34,344
Bait	283	271	23	30	6,509	8,130
Tackle	231	212	53	87	12,243	18,444
Restaurant	319	316	60	101	19,140	31,916
Entertainment	174	172	75	103	13,050	17,716
Groceries	251	264	35	65	8,785	17,160
Launching fees	194	165	33	52	6,402	8,580
Boat repairs	71	53	263	196	18,673	10,388
Public transportation	23	9	38	173	874	1,557
Rental car	5	7	82	180	410	1.260
Aircraft charter	4	7	68	249	272	1,743
Boat charter	9	9	269	619	2,421	5,571
Crew costs	38	37	87	200	3,306	7,400
Other costs	11	14	55	205	605	2,870
Non-itemized		10	-	360	-	3,600
Total					149,013	231,057

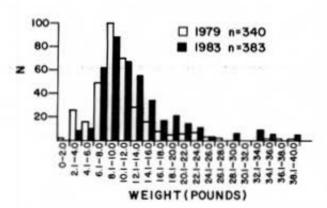


Figure 8. Weight frequency distribution (2 pound intervals) of king mackerel entered in the tournament during 1979 and 1983.

E. CATCH INFORMATION

The number of fish, total poundage, mean weight and the number of boats weighing in fish each day during both year's competition are given in Table 11. The weight frequency distributions of king mackerel entered in both years (1979 and 1983) are compared in Figure 8. More fish, a greater total weight, a larger mean weight, and a great number of boats weighed in fish during 1983 than in 1979. However, nearly twice as many boats participated in 1983 (N=872) as were entered in 1979 (N=407). Both years, boats were permitted to register only five king mackerel per day. As prizes are based on largest fish and greatest aggregate fish weight, only the largest king mackerel from each boat are generally entered into the tournament. As information on total catch and actual fishing effort is not available, little inference or comparisons may be made between years as to fishing success, or the abundance or size of available king mackerel.

Table 11. Tournament catch results.

	Day 1		Day 2		Total	
	1979	1983	1979	1983	1979	1983
Number of fish weighed in	192	191	148	192	340	383
Total poundage weighed in	1943	2579	1553	2394	3496	4973
Mean weight	10.1	13.5	10.5	12.5	10.3	13.0
Number of boats that						
weighed in fish	78	80	46	55	106	135

IV. SUMMARY AND CONCLUSIONS

An estimated 3,811 anglers participated in the Seventh Annual Arthur Smith King Mackerel Tournament held during 1983. These anglers spent an estimated \$2,310,570 to fish in this competition. These anglers brought an additional 9,958 individuals (friends, family members, business associates and other relatives) which made up 2,309 "parties" which had an estimated additional economic impact of \$683,464. Thus, the Seventh Annual Arthur Smith King Mackerel Tournament is estimated to have had a direct economic impact to the Little River/Murrells Inlet area of approximately 3 million dollars during this two-day event.

These estimates may be compared to those obtained during a similar survey conducted on this tournament four years earlier, in 1979. During 1979, a total of 1844 anglers spent \$650,000, and brought 4740 additional individuals who spent \$229,000. The combined economic impact was approximately \$880,000.

During both 1979 and 1983, nearly equal numbers of interviewed anglers were from South Carolina and North Carolina and over 85% of all interviewees were residents of these two states both years. Residents from 23 states during 1983 competed in this tournament compared to ten states being represented during 1979.

The median age of interviewees was between 35 and 40 years. Most anglers classified themselves as professionals (31.5%) or business owners (20.5%) and over 20% indicated a total annual household income in excess of \$50,000. Most participants both years (89.7%-1979 and 85.1%-1983) indicated they traveled to the tournament area specifically to participate in the tournament. Most anglers both years spent three to five days (1979 x = 3.8, 1983 x = 4.1) in the area and most (1979-77%; 1983-78%) traveled by car from within a 200 mile radius with the majority, staying at home (1979-29.6%; 1983-39.5%) or in a motel/hotel (1979-39.5%; 1983-28.8%). During both years, the majority of interviewed anglers (95.8% in 1977 and

92.3% in 1983) indicated they planned to fish in the following year's tournament. On a scale of one (worst) to ten (best), the tournament received a 8.4 rating in 1979 and a 7.7 in 1983.

More king mackerel (340-1979; 383-1983) with a greater combined total weight (3496 lbs.-1979; 4973 lbs.-1983) were taken during 1983 than during 1979. The mean weight of fish weighed-in was also larger during 1983 (13.0 lbs) than during 1979 (10.3 lbs).

ACKNOWLEDGEMENTS

Sincere thanks are expressed to Arthur and Clay Smith and the Tournament Committee of the Seventh Annual Arthur Smith King Mackerel Tournament whose cooperation made this survey possible. Appreciation is extended to: Mel Bell, Mike McKenzie, Donald Hammond, and Robbie Bennett for assisting with angler interviews; Larry DeLancy for assisting with angler interviews and processing the survey data; Karen Swanson for preparing the graphics; Hope Mixson for typing the manuscript; and to Charles Bearden and David Cupka for reviewing the manuscript.

LITERATURE CITED

Smith, J. W. and C. J. Moore. 1980. A Socio-economic Survey of the Third Annual Arthur Smith King Mackerel Tournament. S.C. Mar. Res. Cen. Tech. Report No. 46, 11p.

Woodside, A. G., E. M. Moore and M. J. Etzel. 1980. Vacation Travel Behavior and Preceived Benefits of Home State Residents. University of S.C. Business and Econ. Rev. 26(5): 28-35.

AN ECONOMIC SURVEY OF THE SEVENTH ANNUAL ARTHUR SMITH KING MACKEREL TOURNAMENT

1.	How many days did you actually fish in this tournament? days.
2.	The boat you fished from was (make) boat length year ?
3.	Are you the boat: owner/Capt. owner Captain crewinvited guest
4.	How many anglers fished from this vessel?
5.	What is your county and State of residence?
6.	What is your age?
7.	Total annual household income - range 10-20,000, 21-30,000, 31-40,000
8.	Occupation: skilled laborer service tech. professional clerical manager business owner police, fire etc. farmer teacher student retired other
9.	Did you come (1) to South Carolina (if from out-of-state) (2) the Little River area (if S.C. resident) specifically to fish this tournament?
10.	How many miles did you travel to this tournament? by car by R/V and by boat
11.	How many days, in total, will you spend in this area as a result of your fishing this tournament?days.
12.	Where are you staying (sleeping) (boat, home, hotel, camping, etc.)
13.	Not including other fishermen on your boat how many people came with you or because you are here at this tournament? Immediate family other relatives friends business associates
14.	
	A. Oil and gas for your boat \$ J. Launching or marine fees \$
	B. Oil and gas for your car \$ K. Boat repairs \$
	C. Lodging \$ L. Travel (public transport) \$
	D. Bait \$ M. Rental car \$
	E. Tackle (replacement or new) \$ N. Aircraft charter \$
	F. Restaurant/coffee shop meals. \$ 0. Boat charter \$
	G. Entertainment \$ P. Crew costs (e.g., wages, food) \$
	H. Groceries \$ Q. Other \$\$
15.	Did you enjoy fishing this tournament? Please rate it from 1 (not at all) to 10 (very much)
16.	Do you plan to fish this tournament next year?yesno.
17.	How many other saltwater tournaments have you fished in this year in South Carolina
	elsewhere ?