A SOCIAL AND ECONOMIC SURVEY OF RECREATIONAL SALTWATER ANGLERS IN NORTH CAROLINA

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for the

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INTRODUCTION

In 2009, the North Carolina Division of Marine Fisheries (DMF) conducted the first socioeconomic survey of licensed recreational saltwater fishermen. The information for this study has been made available by the implementation on January 1, 2007 of the Coastal Recreational Fishing License (CRFL). The CRFL provided the database of licensees for sampling.

There are exemptions to purchasing a CRFL for certain anglers: minors under the age of 16, anyone fishing from a fishing pier or a charter boat with a blanket license, and resident members of the Armed Forces on leave in North Carolina. Additionally, the Fourth of July is a free fishing day. A CRFL is not required to harvest shellfish or crabs, only finfish. Exempted individuals are not included in this study but a limited socio economic survey is conducted by the Marine Recreational Information Program which surveys anglers at piers, the shoreline and boat ramps throughout coastal NC.

The goal of this study was to conduct a representative survey of those individuals who purchased a license to fish in coastal areas in 2008. Conducting socioeconomic surveys of recreational fishermen will aid in the development of Fishery Management Plans (FMPs) and other regulations by providing information on how coastal anglers, and their expenditures, are impacted by changes in harvest rules.

STUDY OBJECTIVES

The specific objectives of this study are:

1. To describe the demographic aspects of recreational coastal fishermen in North Carolina,

2. To collect expenditure information from these fishermen in order to develop estimates of the economics associated with their fishing activities, and

3. To assess their perceptions of fishery regulations, conflict, and relevant issues including the future of the fisheries.

METHODS

Recruitment and Participation Rates

By the Division's estimates, there were 803,308 individuals eligible to fish under a CRFL in 2008 (North Carolina Division of Marine Fisheries 2009). Individuals who possess a Lifetime Sportsman License who are eligible to hunt and to fish both freshwater and saltwater bodies may or may not fish in coastal waters. These individuals were included in this survey and may have received the survey but their results are not included if they indicated they did not fish in coastal waters.

In February 2009, a pool of 5,924 CRFL holders was obtained from the NC Wildlife Resource Commission database. The pool was a stratified random sample across the different types of licenses holders in direct proportion to their representation in the CRFL sales database, with the exception of Infant and Youth Lifetime License Holders who were under the age of 18 in 2009. Lifetime Sportsman holders over the age of 85 were also excluded, primarily to reduce the likelihood of calling deceased individuals. The pool included residents of states other than North Carolina. The purpose of drawing the original stratified sample was to provide a sufficiently large list of probable fishermen who could be contacted without running out of names. A goal of 600 completed surveys was considered to be an economically feasible target that balanced out the need for an adequate sample size with the exponential increases in completions that are necessary for reducing the confidence intervals.

Project-specific interviewers completed surveys with 608 fishermen for the project. This relatively large sample provides confidence intervals of +/- 4% at a 95% confidence level when making comparisons to the 800,000+ licensees statewide. Interviewers were instructed to continue to send out letters and make calls until at least 600 surveys were completed. Respondents who indicated that they did not fish in North Carolina saltwater were not included in this total.

Pilots of the survey instrument were tested and run in 2008, primarily to reduce the possibility of misleading or confusing questions and to experiment with the use of an internet portal as a data-gathering tool. Data from the pilots were used to improve the final survey instrument. .

Survey Instrument

The Division has traditionally surveyed commercial fishermen via telephone, partly because the surveys involve many questions about their business of commercial fishing. Recreational fishermen do not need to be interviewed on this topic, greatly reducing the length of the survey. Because this survey was intended to be as cost-effective as possible and use "downtime" from a commercial fishing survey, a multi-modal (internet/telephone/mail) survey methodology was employed using the following approach:

1) staggered draws of 75 (later expanded to 100) random anglers were pulled from the pool,

2) anglers were sent a letter with a unique code and instructions to go to a website where they could fill out survey information at their discretion. If not, the letter continued, they could expect a call from an interviewer in the next few weeks to compete the interview orally,

3) interviewers regularly checked the completion lists on the website and called individuals who had not yet responded. Interviewers used the same internet entry as the fishermen would have used had they entered the data themselves, eliminating the need to later merge separate databases,

4) ten fishermen requested that a paper survey be sent to them.

Responses from anglers via the internet portal (using SurveyMonkey.com) were very positive. Roughly 20% of the anglers would complete the survey online within three days of a mail out, with further responses tailing off rapidly as the days progressed. Of the 608 completed surveys, 439 (72%) were completed through SurveyMonkey, 159 (26%) were completed by an oral interview, and the remaining 10 (2%) were completed by paper surveys through the mail.

The data collected in the survey (see Appendix 1) includes information concerning:
Individual socio-demographics
Targeted species and other fishing behavior
Vessel ownership and other fishing expenses
Attitudes regarding fishery management
User group conflicts

The anglers were surveyed in the summer and fall of 2009. Results were stored in an Excel spreadsheet by the SurveyMonkey website. The data were analyzed using the Statistical Package for the Social Sciences (SPSS release 12.0.0 [SPSS, 2003]). Final data verification, assigning labels to variables, and additional variable calculations were completed in SPSS along with all data analyses. The primary analyses in this report consist of frequency and simple univariate analyses.

Differences by Mode

A primary goal of any survey is for the list of respondents to be an accurate reflection of the overall pool. Another goal is to minimize differences among the different survey instruments, if more than one method is employed. As the number of household landlines has diminished in the United States, surveyors have had increasing difficulty in gaining representative samples because the presence of a landline in a household is thought to be strongly correlated with age. This makes it more likely that respondents will be older than the mean age of the survey pool. In contrast, internet use is inversely correlated with age. One reason for using an internet option in this survey was to demonstrate that this option brings in younger respondents that would otherwise be missed. By that measure, the survey was successful. Users of the internet option were, on average, three years younger (age 48) than those interviewed orally (age 51), and had three years less fishing experience. These differences were statistically significant.[1] The average age of the original survey pool was 46.

At the same time, an examination of the attitudinal questions (see Table 10) found that respondents in both modes listed the issues in the exact same order of importance. The conclusion is that the use of the internet option was a strength of the survey design because it

1) greatly decreased the cost of the study,

[1] Standard t-test, $p<.05$.

2) decreased the time period of active surveying, and

3) provided a more accurate reflection of the overall population of CRFL holders by lowering the age of the respondent pool.

RESULTS

Demographics

Demographic information was collected for each respondent (Table 1). Fishermen interviewed were mostly white (92%) males (91%) that have fished, on average, for 27 years. Ages ranged from 19 to 84 years old, with a mean age of 49. Forty percent (40%) were college graduates, and most (80%) were married.

Table 1. Demographic information of respondents.

Demographics	Frequency	Percent
Gender		
Male	551	91%
Female	49	9%
Racial / Ethnic Background		
White	561	92%
African-American	18	3%
Native American	10	2%
Hispanic	7	1%
Education		
High School or less	169	28%
Some College	193	32%
College Graduate	168	28%
Graduate Study/Work	72	12%
Marital Status		
Married	489	80%
Divorced	36	6%
Widowed	6	1%
Separated	6	1%
Never Married	64	11%

Table 1. Demographic information of respondents *(cont)*.

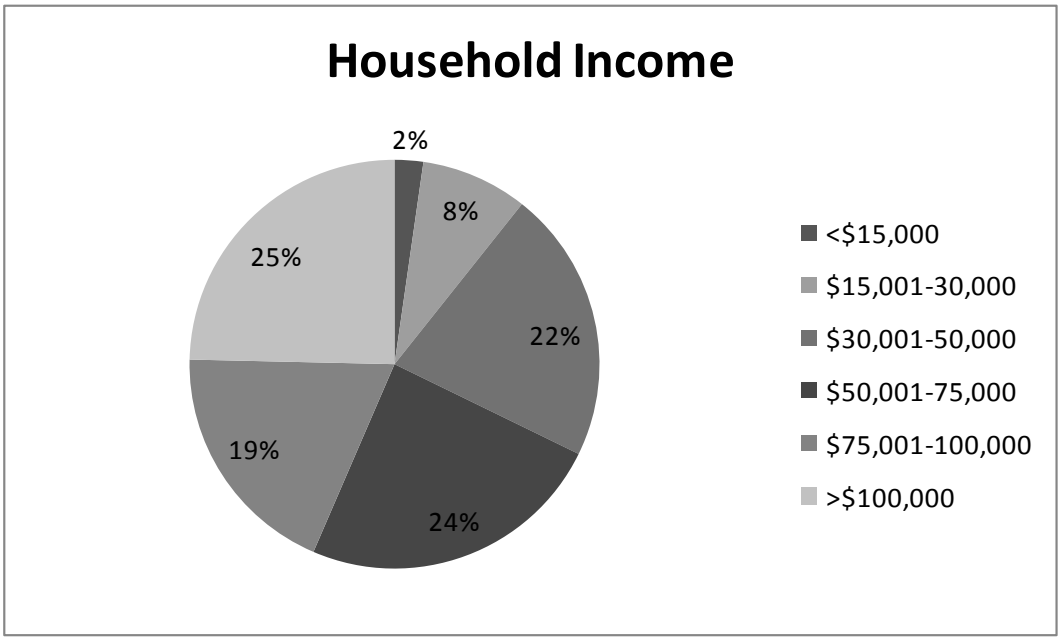
Demographics	Frequency	Percent
# of People in Household		
One	57	9%
Two	279	46%
Three	117	19%
Four	110	18%
Five	21	3%
Six	9	1%
More than Six	7	1%

Over two-thirds (68%) of the respondents reported household incomes over $50,000/year, and 25% had incomes of $100,000 or more (Figure 1). The median family income in North Carolina for 2008 was $46,549.[2] Employed respondents were asked to classify their primary jobs using a list from the United States Department of Labor's 2000 Standard Occupational Classification (SOC) System.[3] Of those able to find an appropriate classification (17% of respondents checked "other" and another 17% indicated they were retired), the most common jobs were in management (11%), followed by construction (10%), installation and repair (7%), sales (4%), and protective services like firefighters and police (4%). The median number of weeks of paid vacation was two weeks per year.

The most common county of residence for these respondents was Wake (10%), followed by Pitt (5%), Carteret (3%), Craven (3%), and Onslow (3%). These numbers are somewhat different from those found in CRFL sales reports for 2008, where the most common county of residence was listed as Dare (9%). Almost every county in the state was represented (88 out of 100), ranging from coastal to inland. The respondents had lived in their communities for an average of 26 years, indicating deep ties to their areas.

[2] See http://www.census.gov/hhes/www/income/data/index.html
[3] See http://www.bls.gov/soc/home.htm for more information.

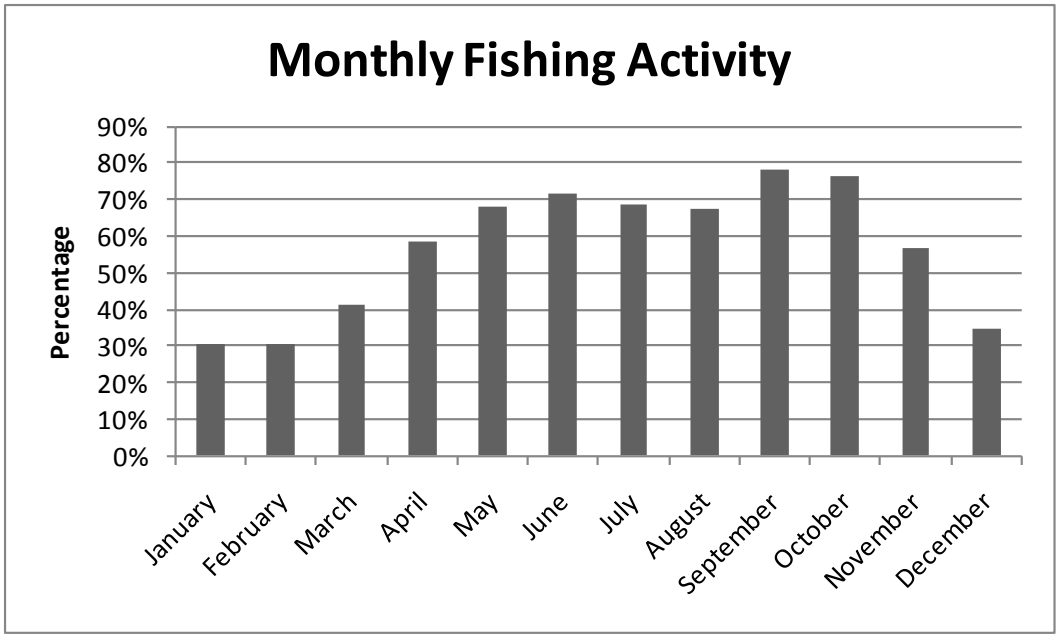
Figure 1. Household income of respondents.



Fishing Activity

May through October were the months of highest fishing participation with over two-thirds spending some time on the water, and winter was the slowest time (Figure 2). Monthly estimates include the 27% of anglers who indicated they fished year round.

Figure 2. Monthly fishing activity of respondents.



Targeted Species

Saltwater species regulated in the waters in and near North Carolina fit in two general categories, inshore (within state jurisdiction) and offshore (in federal waters greater than three miles from the coast). The percentage of inshore and offshore species most commonly targeted by the respondents was calculated (Table 2). Several of the respondents in this survey also own fishing licenses in other states, the most common being Virginia (7%), South Carolina (5%), and Florida (3%). Fishermen were also asked about other saltwater fishing activities they participate in besides angling and their responses recorded (Table 3).

Table 2. Primary inshore and offshore species targeted by respondents.

Inshore Species	% who target	Offshore Species	% who target
Flounder	83%	King Mackerel	39%
Spot	70%	Dolphin/Mahi	39%
Spotted Sea Trout	69%	Black Sea Bass	30%
Red Drum	62%	Tuna	27%
Bluefish	61%	Wahoo	27%
Croakers	60%	Red Snapper	23%
Black Drum	49%	Gag/Black Grouper	19%
Striped Bass	44%	Amberjack	15%
Weakfish	43%	Triggerfish	14%
Sea Mullet	42%	Red Porgy	13%
Pompano	37%	Vermillion Snapper	11%
Sheepshead	33%	Grunts	9%
Cobia	21%		

Table 3. Non-angling activities of respondents.

Activity	% who
Harvest crabs	17%
Harvest clams	11%
Harvest oysters	7%
Cast net for shrimp (to eat)	14%
Cast net for bait	55%
Gig for flounder	25%
Dive off the North Carolina coast	6%

Perceptions

Respondents were asked a variety of questions designed to elicit their opinions on the issues that affect their saltwater fishing activities, particularly regarding the challenges fishermen face today. Every fisherman ranked a variety of different issues on a ten-point scale by “how important [he or she] considers each of these issues are to [his or her] fishing business” (Table 4). The presented order of the issues was randomly shuffled by both the computer and the interviewer for each survey to prevent bias.

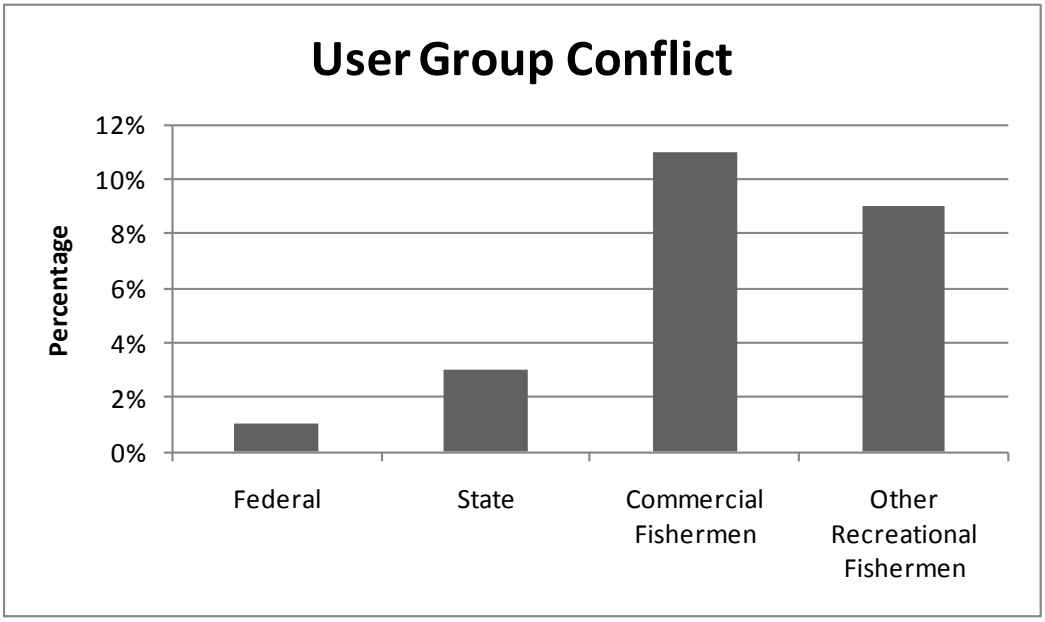
Table 4. Listed issues of concern of respondents.

Rank	Issue
1	Water Quality / pollution
2	Keeping up with rules
3	Fuel prices
4	Finding enough time in my life to fish
5	Overfishing/too few fish
6	Weather
7	Access issues (lack of boat ramps, parking at the beach, etc)
8	Bag/size limits
9	Losing fishing piers
10	Competition with commercial fishermen

User Group Conflicts

The fishermen were also asked about conflicts with enforcement officers and with other user groups. The most common indicated conflict with other user groups was with commercial and other recreational fishermen (Figure 3).

Figure 3. Percentage of respondents reporting conflicts with enforcement officers or other user groups.



Fishing Vessels and Expenses

Less than half of the fishermen (44%) owned boats used for coastal angling, with 8% owning two boats, and 1% owning three or more. Vessel characteristics were collected for each boat including length, years of ownership and value (Table 5). Value also includes gear used on that boat. Boats are generally kept at their homes on trailers (82%), at private docks (18%), or at a marina or dry stack (11%).[4] The mean and median boat length was 19 feet, with a minimum reported length of 10 feet and a maximum of 41 feet. The highest self-reported value was $320,000.

Table 5. Average vessel characteristics of respondents.

Vessel Characteristic	Average
Length (in feet)	19
Years Owned	7
Value	$17,054

Respondents were asked to estimate their per-trip expenditures for several different categories of coastal fishing they might participate in: inshore, offshore, chartered, pier, and beach. Table 6 illustrates the estimated per-trip and annual inshore and offshore operating expenses incurred by North Carolina saltwater anglers. Estimates include both the average and the median (that of the "middle" fishermen). Note that the average inshore per-trip expenditure is over triple the median, indicating that much of the money spent fishing is spent by a few fishermen. The median cost of an inshore trip was $58 for 2008, and the median number of trips taken was 15. The differences in average and median values for offshore expenditures per-trip are even more pronounced, as an even smaller percentage of saltwater anglers venture out of state waters. The median cost of an offshore trip was $84 for 2008, and the median number of trips taken was 1. The median annual spending on offshore trips per year is also $84, less than a tenth of the median annual spending on inshore trips ($870).

Table 6. Average estimated inshore and offshore trip expenditures of respondents.

	Inshore		Offshore	
Trip Expenses	Average	Median	Average	Median
Boat Fuel and Oil	$26	$15	$86	$40
Ice	$5	$3	$8	$4
Groceries	$20	$10	$20	$10
Bait	$12	$10	$16	$10
Car/Truck Fuel	$35	$20	$37	$20
Lodging	$38	$0	$40	$0
Other Expenses	$4	$0	$3	$0
Total/Trip:	$139	$58	$211	$84
Trips/Year	26.8	15	4.6	1
Estimated Annual Spending/Angler	$3,727	$870	$971	$84

[4] Respondents were allowed to choose multiple answers on this question.

The median number of days spent fishing on charter trips or from fishing piers was zero; that is, less than half of the fishermen in this survey fished in that manner in the previous year. The average spent on a charter trip was $149.80, and the average spent on a fishing pier was $10.90.

Economic Impact

The impact of saltwater fishing trips on North Carolina's economy for 2008 is shown in Table 7. The DMF collects data about recreational fishing in conjunction with the federal government's Marine Recreational Fisheries Statistics Survey (MRFSS).[5] Multiplying the trip count estimates[6] for various fishing modes from 2008 with the average estimated expenditures for each of those modes in Table 6, and the mean reported costs of charter and pier fees, the total expenditures are estimated at $943,929,472 for 7,093,359 trips.[7]

These numbers are comparable to the most recent economic impact estimates from the National Marine Fisheries Service's published *The Economic Contribution of Marine Angler Expenditures in the United States 2006*. That report estimated the total sales impact of trip related expenses in North Carolina at $947,097,000 for 7,247,000 trips. In this report, we estimated a total sales impact of $943,929,472. The NMFS report estimated average expenditures at $98/trip.[8] Comparable numbers for this report are estimated at $133/trip. Average trip expenditures likely differed due the different time periods during which the two surveys were conducted (NMFS-2006, DMF-2008).

An input-output model based on the direct effects which are those effects that represent the initial change in the industry, was generated using IMPLAN Version 3. The economic sectors most affected by trip expenditures in the recreational fishery are food stores, wholesale trade, oil and gas sales, domestic trade, ice manufacture, hotels, charter fees, realty, home work and repair, business management, food services, and medical services. These sectors create indirect effects, defined as changes in inter-industry transactions as supplying industries respond to increased demands from the directly affected industries. These sectors also create

[5] The MRFSS consists of two complementary surveys: 1) a telephone survey of households in coastal counties to get trip information and 2) an intercept survey of anglers at shore side access sites to obtain catch rates and species composition. The data from the two surveys are combined to provide estimates of the total number of fish caught, released, and harvested; the weight of the harvest; the total number of trips; and the number of people participating in marine recreational fishing.

[6] See Figure 9, page III-15 of the License and Statistics Annual Report (Division of Marine Fisheries 2009).

[7] The following assumptions were made:

1) anglers in this report averaged 14.75% of their trips offshore, and that percentage of the MRFSS private boat trip modes was assigned offshore trip expenditure numbers from Table 5.
2) Charter trips were assigned the same travel expenditures (automotive fuel, lodging, and food) as offshore trips in addition to the charter fee.
3) Pier trips were assigned the same travel and bait expenses as inshore trips in addition to the pier fee.
4) Beach trips were assigned the same travel and bait expenses as inshore trips.

[8] NMFS estimates were made from a short set of expenditure questions that are added to intercept surveys every third year.

induced effects which reflect changes in local spending that result from income changes in the directly and indirectly affected industry sectors. Using these data, the total economic effects (output) from recreational angling in North Carolina are estimated at over $1.6B (Table 7).

Table 7. Estimated economic impact of saltwater angling.

Impact Type	Output	Employment	Labor Income	Total Value Added
Direct Effect	$943,929,472	12,424	$295,284,352	$548,552,704
Indirect Effect	$319,250,048	2,434	$105,912,752	$176,979,968
Induced Effect	$339,542,720	2,900	$106,812,664	$196,819,456
Total Effect	$1,602,722,304	17,758	$508,009,760	$922,353,664

DISCUSSION

The combination of using an online survey with a telephone follow-up for non-respondents is very promising and cost effective. Respondents to the online portion are slightly younger and help bring the median age of respondents closer to that of the overall survey pool. The online option proved popular with many fishermen, and greatly lowered survey costs for the Division. Staff costs were hence minimal. This online/telephone format should be explored in future surveys when possible.

The estimated $1.6 billion economic impact attributed to recreational fishing trip expenditures is a significant contribution to the coastal economy, particularly during a time when other economic engines such as development have declined. Expenditures and impact values determined in this survey closely track those of federal surveys (Gentner and Steinback, 2006) which lends support to the results of this study.

The economic expenditure information was very strictly defined and based only on expenditures associated with individual fishing trips. The sale of durable goods, such as boats, tackle, and beach homes, were not included. Durable expenditures were estimated by Gentner and Steinback (2006) and found to total $1.3B in North Carolina in 2006. Most durable expenditures have multiple uses beyond recreational angling which makes it more difficult to assess their actual impact. Additionally, durable goods such as boats are hard to estimate value on a per trip basis or even a yearly basis, as the usable lifespan of such goods varies greatly according to product quality and intensity of use. Further refinement of this data in North Carolina may be of importance for future studies assessing the total value of recreational saltwater fishing to the state.

ACKNOWLEDGEMENTS

I wish to thank all of the recreational fishermen who took the time to answer this long survey. Vicky Thayer worked tirelessly to track down the fishermen, interview them, and enter their answers into the database. Doug Mumford and Chris Wilson provided the original stratified sample from the WRC database.

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APPENDIX I – 2009 COASTAL RECREATIONAL FISHING LICENSE SURVEY

1. Introduction

* **1. Please enter your last name.**

* **2. Please enter the seven-digit identification number on the letter you received.**

Id #:

3. Please provide your email address:

* **4. Do you fish in saltwater in North Carolina?**

- Yes
- No

2.

The questions in this survey are about your SALTWATER fishing habits. Do not include freshwater fishing in your answers.

5. How many years have you been saltwater fishing? (For example, 25 years = 25).

6. Compare yourself to other saltwater fishermen using a scale 1 to 10. With 1 being "least successful" to 10 being "most successful", how successful do you think you are?

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

7. What months do you fish in saltwater?

	Yes
Year Round	○
January	○
February	○
March	○
April	○
May	○
June	○
July	○
August	○
September	○
October	○
November	○
December	○

8. Do you. . .

- ☐ harvest crabs
- ☐ harvest clams
- ☐ harvest oysters
- ☐ cast net for shrimp (that you intend to eat)
- ☐ cast net for bait
- ☐ gig for flounder
- ☐ dive off the North Carolina coast

9. What species do you fish for INSHORE and NEARSHORE (within 3 miles of land)?

	Yes
Spotted sea trout/speck	○
Weakfish/grey trout	○
Striped bass	○
Croakers	○
Spot	○
Sea mullet/whiting	○
Flounder	○
Black drum	○
Red drum	○
Cobia	○
Sheepshead	○
Bluefish	○
Pompano	○
Other _____	

10. What species do you fish for OFFSHORE?

	Yes
Gag/black grouper	○
Amberjack	○
Grunts	○
Wahoo	○
Dolphin/mahi mahi	○
Vermillion snapper (beeliners)	○
King mackerel	○
Red snapper	○
Red porgy/pink snapper	○
Triggerfish	○
Black sea bass	○
Tuna	○
Other _____	

11. How many boats do you own that you use for saltwater fishing? (For example, 3 boats = 3).

_____

12. Vessel 1

Years Owned	
Market value including attached gear (ex. outriggers, etc.)	
Length (in feet)	

13. Vessel 2

Years Owned	
Market value including attached gear (ex. outriggers, etc.)	
Length (in feet)	

14. Vessel 3

Years owned	
Market value including attached gear (ex. outriggers, etc.)	
Length (in feet)	

3.

15. Where do you keep your boats?

- ☐ Private marina/Dry Stacks
- ☐ Private dock
- ☐ Trailered

Other

16. How many DAYS per year do you go fishing INSHORE? (3 times per year = 3).

17. Including yourself, how many people are usually on those trips? (For example, 3 people = 3).

18. Please provide your average DAILY operating expense for your average INSHORE fishing trip (for the vessel you use the most). Round off your answers to the nearest dollar. If you usually have multiple people on a trip, put the average cost per person.

Boat fuel and oil	
Ice	
Groceries	
Bait	
Travel expenses (car/truck gas)	
Travel expenses (lodging)	
Other	

19. How many DAYS per year do you go fishing OFFSHORE? (For example, 20 times per year = 20).

20. Including yourself, how many people are usually on those trips? (For example, 3 people = 3).

21. Please provide the average DAILY operating expense for your average OFFSHORE fishing trip (for the vessel you use the most). Round off your answers to the nearest dollar. If you usually have multiple people on a trip, put the average cost per person.

Boat fuel and Oil	
Ice	
Groceries	
Bait	
Travel expenses (car/truck gas)	
Travel expenses (lodging)	
Other (NOT charter fees)	

22. How many DAYS did you take a charter or headboat trip in NC last year? (For example, 25 trips = 25).

23. What was your average DAILY total cost per charter/headboat ocean fishing trip? (For example, $2,500 = 2500).

24. How many DAYS did you fish off an NC ocean fishing pier? (For example, 30 times = 30).

25. What was the average cost per ocean fishing pier DAY? (For example, $150 = 150).

26. How many DAYS did you fish off a NC beach? (For example, 50 times = 50).

4.

27. In what other states do you currently have a saltwater fishing license?

	Yes
Florida	○
South Carolina	○
Virginia	○
Georgia	○
New Jersey	○
Maryland	○
New York	○

Other

28. How old are you? (For example, 25 years old = 25).

29. Are you. . .

- ○ Male
- ○ Female

30. What do you consider to be your ethnic background?

- ○ Hispanic/Latino
- ○ White/Caucasian
- ○ African-American/Black
- ○ Asian/Pacific Islander
- ○ Native American

Other

31. What was the highest grade you completed in school?

- ○ Less than high school diploma
- ○ High school diploma
- ○ Some college/technical school
- ○ College diploma
- ○ Graduate Study/Work

32. What is your marital status?

- ○ Currently married
- ○ Divorced
- ○ Widowed
- ○ Never married
- ○ Separated

33. How many people live in your household? (For example, 3 people = 3).

34. How many people do you financially support that don't live in your household? (For example, 2 people = 2).

35. Please mark the amount of the total income of everyone who lives in your household?

- ○ <$15,000
- ○ $15,001-30,000
- ○ $30,001-50,000
- ○ $50,001-75,000
- ○ $75,001-100,000
- ○ >$100,000
- ○ Prefer not to answer

36. Which of these job classifications best describes your PRIMARY job?

- ○ Management (sales managers, public relations managers)
- ○ Business and financial (accountants, human resources)
- ○ Computer and mathematical (web masters, tech support)
- ○ Architecture and engineering (suveyors, civil engineers)
- ○ Life/physical/social sciences (biologists, chemists, economists, market researchers)
- ○ Community and services (counselors, social workers, clergy)
- ○ Legal (lawyers, judges, paralegals, law clerks)
- ○ Teacher or librarian
- ○ Arts, design, entertainment, sports, or media (designers, reporters)
- ○ Healthcare practitioner (doctors, nurses, dentists, pharmacists)
- ○ Protective service (police and firefighters)
- ○ Food preparation and service (restaurant workers)
- ○ Building and grounds cleaning and maintenance
- ○ Personal care and service (providing services directly to the public such as barbers, flight attendants)
- ○ Sales and Related Occupations (cashiers, sales representatives, real estate agents)
- ○ Office and Administrative Support Occupations (telephone operators, tellers, secretaries, file clerks)
- ○ Farming, fishing, and forestry (forest and conservation workers)
- ○ Construction (carpenters, electricians)
- ○ Installation, maintenance, and repair (mechanics, plumbers)
- ○ Productions (machinists, factory workers)
- ○ Transportation (pilots, railway workers)
- ○ Military (enlisted and commissioned only)
- ○ Retired
- ○ Other

5.

37. How many weeks of paid vacation do you get per year? (For example, 3 weeks = 3).

38. What is the name of the community/town/city where you live?

39. Which county is that located in?

Counties

40. How many years have you lived in this community? (For example, 27 years = 27).

41. In the last year have you had any negative experiences? If "yes", please explain what they were and the reason for the conflict.

	Yes	No
Have you had any negative experiences with other recreational fishermen?	○	○
Have you had any negative experiences with commercial fishermen?	○	○
Have you had any negative experiences with federal officers (Coast Guard, etc)?	○	○
Have you had any negative experiences involving state officers (Marine Patrol)?	○	○

Yes

42. If you belong to any saltwater fishing organizations please list them.

43. Use the scale of 1 to 10 and tell me how important you consider each of these issues to saltwater fishing, overall and to you personally. 1 means "it's not important or doesn't affect me" and 10 means "it's extremely important or it affects me a great deal".

	1	2	3	4	5	6	7	8	9	10
Keeping up with rules	○	○	○	○	○	○	○	○	○	○
Finding enough time in my life to fish	○	○	○	○	○	○	○	○	○	○
Weather	○	○	○	○	○	○	○	○	○	○
Water Quality / pollution	○	○	○	○	○	○	○	○	○	○
Bag/size limits	○	○	○	○	○	○	○	○	○	○
Competition with other recreational fishermen/crowding	○	○	○	○	○	○	○	○	○	○
Competition with commercial fishermen	○	○	○	○	○	○	○	○	○	○
Overfishing/too few fish	○	○	○	○	○	○	○	○	○	○
Fuel prices	○	○	○	○	○	○	○	○	○	○
Losing fishing piers	○	○	○	○	○	○	○	○	○	○
Access issues (lack of boat ramps, parking at the beach, etc)	○	○	○	○	○	○	○	○	○	○

Other

6. Thank you!

The North Carolina Division of Marine Fisheries is expanding its data collection on the recreational fishing community, and your willingness to take this survey is appreciated.

Sincerely,

Scott Crosson, Ph.D.
Socioeconomics Program Manager

44. Please add any comments you have on the structure or substance of this survey.