



Cape Fear River Recreational Fishing Survey

INTRODUCTION

This survey is part of a study of the economic value of the Cape Fear River. The study is being funded through a partnership with the Cape Fear River Watch and the National Oceanic and Atmospheric Administration (NOAA), with support from the North Carolina Division of Marine Fisheries, the North Carolina Wildlife Resources Commission and the University of North Carolina Wilmington.

Changes in water quality and access to suitable habitat have limited the ability to catch certain species of fish in the Cape Fear River. The purpose of this study is to understand the benefits to fishers if catch rates improve.

The survey is completely **anonymous and confidential**. We do not require your name, address or phone number. Your participation is **voluntary**, you can stop at any time or refuse to answer any question and your responses will not be treated any differently by the researchers. Your answers are important for future decisions about natural resource management in the Cape Fear River. Please be as truthful and complete as possible.

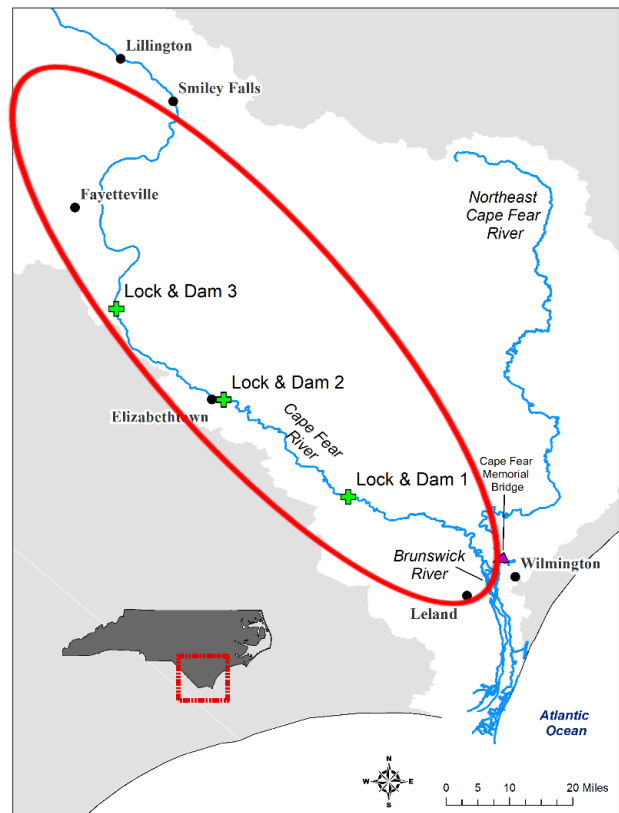
Please only take this survey if you are 18 years or older.

This survey has 36 questions and should take about 10 minutes to complete.

We have included a self-addressed envelope with current postage paid. Please complete this survey, enclose it in the self-addressed envelope and mail it back to us at your earliest convenience.

Thank you for agreeing to take this survey!

Learn more at: www.CapeFearRiverWatch.org



Many questions in this survey ask about your activity and preferences for **fishing in the Cape Fear River upstream of the Cape Fear Memorial Bridge**.

This area includes downtown Wilmington, the Brunswick River and upstream to Smiley Falls at Lillington.

This area is circled on the map shown here.

If you have any questions, please contact Dr. Peter Schuhmann at schuhmannp@uncw.edu
This research study has been reviewed by the UNC Wilmington Institutional Review Board #20-0053

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PLEASE TELL US ABOUT YOUR FISHING PREFERENCES AND EXPERIENCE

1. Approximately how many times in the last 12 months did you go recreational fishing?
 0 1-2 times 3-5 times 6-10 times
 11-20 times 20-50 times 50-100 times More than 100 times
2. How many times in the last 12 months did you go recreational fishing in saltwater (ocean, sounds, estuaries)?
 0 1-2 times 3-5 times 6-10 times
 11-20 times 20-50 times 50-100 times More than 100 times
3. How many times in the last 12 months did you go recreational fishing in the Cape Fear River?
 0 1-2 times 3-5 times 6-10 times
 11-20 times 20-50 times 50-100 times More than 100 times
4. How many times in the last 12 months did you go recreational fishing in the **Cape Fear River upstream of the Cape Fear Memorial Bridge?** (please refer to map of Cape Fear River on page 1)
 0 1-2 times 3-5 times 6-10 times
 11-20 times 20-50 times 50-100 times More than 100 times
5. Approximately how much time does it take for you to travel from your home to your preferred fishing location on the **Cape Fear River upstream of the Cape Fear Memorial Bridge?**
 Less than 15 minutes 15-30 minutes 1 hour 1-2 hours 3-5 hours more than 5 hours

IF YOU FISHED ON THE CAPE FEAR RIVER UPSTREAM OF THE CAPE FEAR MEMORIAL BRIDGE IN THE PAST 12 MONTHS, PLEASE ANSWER QUESTIONS 6-36.

IF YOU DID NOT FISH ON THE CAPE FEAR RIVER UPSTREAM OF THE CAPE FEAR MEMORIAL BRIDGE IN THE PAST 12 MONTHS, PLEASE SKIP AHEAD TO QUESTIONS 22-36.

6. How many years have you been fishing in the **Cape Fear River upstream of the Cape Fear Memorial Bridge?** _____ years
7. On a typical trip to the **Cape Fear River upstream of the Cape Fear Memorial Bridge**, approximately how many hours do you spend fishing?
 Less than 1 hour 1-2 hours 3-5 hours 6-10 hours More than 10 hours
8. If your preferred fishing location on the **Cape Fear River upstream of the Cape Fear Memorial Bridge** were not accessible, would you take a fishing trip somewhere else instead, participate in some other activity or would you stay home?
 I would take a fishing trip to another location on the Cape Fear River
 I would take a fishing trip to a different body of water
 I would participate in some other recreation activity
 I would stay home
 I don't know
 Other _____
9. When you go recreational fishing what is more important to you, the size of the fish that you catch or the number of fish that you catch?
 I have a strong preference for catching a lot of fish.
 I have a strong preference for catching large fish.
 Both are important to me, but I prefer catching a lot of fish.
 Both are important to me, but I prefer catching big fish.
 Both are equally important to me.
 Neither of these are important to me.
10. When you fish in the **Cape Fear River upstream of the Cape Fear Memorial Bridge**, do you typically target a particular species?
 Yes No

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11. If yes, what is your primary target on the **Cape Fear River upstream of the Cape Fear Memorial Bridge**?
 Striped bass Shad Catfish Other _____

12. Have you ever caught a tagged fish when fishing in the **Cape Fear River upstream of the Cape Fear Memorial Bridge**?
 Yes No I don't know

13. On an average fishing trip to the **Cape Fear River upstream of the Cape Fear Memorial Bridge**, how many fish do you expect to catch?
 0. I usually don't catch any fish when I fish in the Cape Fear River upstream of the Cape Fear Memorial Bridge
 I usually catch 1-2 fish per trip when I fish in the Cape Fear River upstream of the Cape Fear Memorial Bridge
 I usually catch 3-5 fish per trip when I fish in the Cape Fear River upstream of the Cape Fear Memorial Bridge
 I usually catch 6-10 fish per trip when I fish in the Cape Fear River upstream of the Cape Fear Memorial Bridge
 I usually catch 10 or more fish per trip when I fish in the Cape Fear River upstream of the Cape Fear Memorial Bridge

14. When fishing on the **Cape Fear River upstream of the Cape Fear Memorial Bridge**, do you usually keep your catch?
 Yes, I usually keep all the fish that I catch
 Yes, I usually keep some of the fish that I catch
 No, I usually release all the fish that I catch

15. If you usually keep at least some of your catch, what do you do with the fish you keep?
Please check all that apply.
 Eat it
 Use as bait
 Give to friends/neighbors
 Other _____

16. If you **do** eat the fish you catch from the Cape Fear River upstream of the Cape Fear Memorial Bridge, why do you eat these fish? *Please check all that apply.*
 I like the taste of fish
 I think these fish are safe to eat
 Eating fish that I catch saves money that I would have to spend on other food
 Other _____

17. If you **do not** eat the fish you catch from the Cape Fear River upstream of the Cape Fear Memorial Bridge, why not? *Please check all that apply.*
 I don't like the taste of fish
 I don't like the taste of the species that I catch from the Cape Fear River
 I don't think fish from the Cape Fear River upstream of the Cape Fear Memorial Bridge are safe to eat
 It's too much effort to clean and prepare the fish that I catch
 I like to practice catch and release fishing
 Other _____

18. Did you typically use a paid fishing guide when you fish in the Cape Fear River upstream of the Cape Fear Memorial Bridge? Yes No

19. Did you mostly fish from a boat or from shore (pier or bank) when you fish in the Cape Fear River upstream of the Cape Fear Memorial Bridge?
 I mostly fish from a boat I mostly fish from shore (pier or bank)

20. If you fish from a **boat**, do you own the boat? Yes No

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PLEASE TELL US ABOUT YOUR SATISFACTION WITH FISHING ON THE CAPE FEAR RIVER UPSTREAM OF THE CAPE FEAR MEMORIAL BRIDGE

21. On a scale of 1-5, with 1 meaning “lowest satisfaction” and 5 meaning “highest satisfaction”, please rate the following attributes based on a typical fishing trip to the Cape Fear River upstream of the Cape Fear Memorial Bridge. If an item does not apply to you, indicate by checking n/a (not applicable). If you don’t know, check dk (don’t know).

	Low satisfaction					High satisfaction	
The number of fish that I can catch	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
The size of fish that I can catch	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
The number of fish that I legally can keep	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
The size of fish that I can keep	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
The number of different species that I catch	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
The overall quality of fishing	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
The cleanliness & visibility of the water	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
Crowding at the boat ramp	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
Crowding at shore fishing sites	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk
Crowding on the water (if boating)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> n/a	<input type="checkbox"/> dk







PLEASE ANSWER THE FOLLOWING QUESTIONS EVEN IF YOU HAVE NOT FISHED ON THE CAPE FEAR RIVER UPSTREAM OF THE CAPE FEAR MEMORIAL BRIDGE IN THE PAST 12 MONTHS.

22. Which of the following changes would cause you to take more recreational fishing trips on the **Cape Fear River upstream of the Cape Fear Memorial Bridge each year**?

I would take **more** fishing trips on the Cape Fear River upstream of the Cape Fear Memorial Bridge if... *Please check all that apply.*

- ... I could catch **more fish** (any species).
- ... I could catch **bigger fish** (any species).
- ... I could catch **more striped bass**.
- ... I could catch **bigger striped bass**.
- ... I could **keep the striped bass** that I catch.
- ... **I knew it was safe to eat the fish** that I catch.
- ... It was **less crowded** at the fishing sites.
- ... **If the water was cleaner and clearer**.
- ... **If it was closer to my home**.
- ... **If there were more public access boat ramps**.
- ... **If there were more public access locations to fish from shore/bank/pier**.
- ... **If (other):** _____.

NEXT, PLEASE THINK ABOUT PLANNING A FISHING TRIP TO THE CAPE FEAR RIVER UPSTREAM OF THE CAPE FEAR MEMORIAL BRIDGE. On the following pages you will be offered four choices each with two fishing trip options. Please read each question carefully. Although they look similar, the two trip options in each choice differ in at least one way from the other. Please complete all four choice scenarios using the definitions provided below.

	<p>Travel Time is the time it will take you to travel from your home to your preferred fishing location on the Cape Fear River upstream of the Cape Fear Memorial Bridge, compared to your usual travel time that you reported in question 5.</p>
	<p>Catch of small striped bass is the average number of striped bass that are 22 inches or less that you can expect to catch on a trip.</p>
	<p>Catch of large striped bass is the average number of striped bass that are 26 inches or larger that you can expect to catch on a trip.</p>
	<p>Catch of shad is the average number of shad of average size (approximately 16-18 inches) that you can expect to catch on a trip.</p>
	<p>Striped Bass Regulations are restrictions on how many striped bass you can legally keep (bag limit). There is currently a moratorium on keeping striped bass caught in the CFR and its tributaries.</p> <ul style="list-style-type: none"> • “Closed” means that <i>you may not keep any striped bass</i>. • “Open” means that you will be able to <i>legally keep up to 2 striped bass</i> per trip that are at least 18 inches in length.
<p>NOTICE! FISH FROM THESE WATERS MAY BE HARMFUL TO EAT.</p> 	<p>Fish advisory indicates whether there is an advisory in place that recommends not consuming fish that you catch.</p>

Each hypothetical choice has three options: Trip A, Trip B or Neither Trip.

Please complete all four of the following choices based on the attributes shown.

For **all other important factors** not mentioned (e.g., weather, catch of other species, availability of guide services, etc.), please **assume that they are the same** across each option below.

There are no right or wrong answers, only your personal preferences for fishing trips and your available time and budget for recreational fishing.

Please base your choices on your preferences, income, household expenses and other obligations.

Be sure to answer based on what you truly would be willing and able to do.



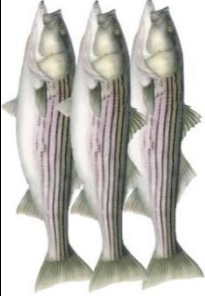




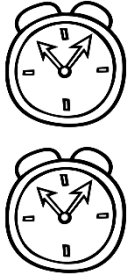



You should select Option C (*neither*) if both Option A and Option B are unacceptable in terms of travel time or fishing quality.

Identifier number

23. Hypothetical choice 1: Suppose that you could only choose from the CAPE FEAR FISHING TRIP OPTIONS BELOW (Trip A, Trip B, or neither trip). **If all other factors were equal, which would you prefer?**

Please choose Trip A, Trip B or neither trip



	Travel Time	Number of small striped bass	Number of large striped bass	Number of Shad	Allowed to keep striped bass?	Fish Consumption advisory	I would choose...
TRIP A	No Change 	5 per trip 	3 per trip 	2 per trip 	Not legal to keep striped bass 	No Advisory <i>Fish are <u>Safe</u> to Eat</i> 	 <input type="checkbox"/> TRIP A
TRIP B	50% more travel time 	1 per trip 	1 per trip 	0 per trip	Yes Legal to keep up to 2 striped bass that are at least 18 inches in length	Advisory NOTICE! FISH FROM THESE WATERS MAY BE HARMFUL TO EAT. 	<input type="checkbox"/> TRIP B
NEITHER TRIP	I WOULD NOT GO ON EITHER OF THESE FISHING TRIPS						<input type="checkbox"/> NEITHER TRIP

How confident do you feel about choice 1?

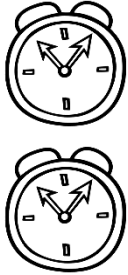

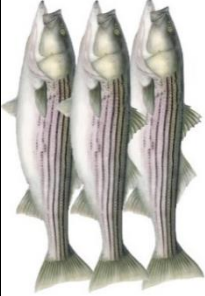



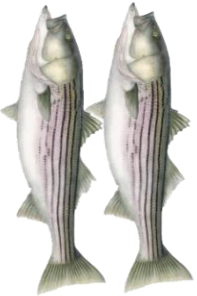


1 2 3 4 5
(not confident) (very confident)

Identifier number

24. Hypothetical choice 2: Suppose that you could only choose from the CAPE FEAR FISHING TRIP OPTIONS BELOW (Trip A, Trip B, or neither trip). **If all other factors were equal, which would you prefer?**

Please choose Trip A, Trip B or neither trip



	Travel Time	Number of small striped bass	Number of large striped bass	Number of Shad	Allowed to keep striped bass?	Fish Consumption advisory	I would choose...
TRIP A	50% more travel time 	3 per trip 	3 per trip 	0 per trip	Yes Legal to keep up to 2 striped bass that are at least 18 inches in length	Advisory NOTICE! FISH FROM THESE WATERS MAY BE HARMFUL TO EAT. 	 <input type="checkbox"/> TRIP A
TRIP B	25% less travel time 	0 per trip	2 per trip 	5 per trip 	Not legal to keep striped bass CATCH & RELEASE FISHING ONLY	No Advisory <i>Fish are Safe to Eat</i> 	<input type="checkbox"/> TRIP B
NEITHER TRIP	I WOULD NOT GO ON EITHER OF THESE FISHING TRIPS						<input type="checkbox"/> NEITHER TRIP

How confident do you feel about choice 2?












1 2 3 4 5
(not confident) (very confident)

Identifier number

25. Hypothetical choice 3: Suppose that you could only choose from the CAPE FEAR FISHING TRIP OPTIONS BELOW (Trip A, Trip B, or neither trip). **If all other factors were equal, which would you prefer?**

Please choose Trip A, Trip B or neither trip



	Travel Time	Number of small striped bass	Number of large striped bass	Number of Shad	Allowed to keep striped bass?	Fish Consumption advisory	I would choose...
TRIP A	No Change 	0 per trip	1 per trip 	0 per trip	Not legal to keep striped bass 	Advisory NOTICE! FISH FROM THESE WATERS MAY BE HARMFUL TO EAT. 	 <input type="checkbox"/> TRIP A
TRIP B	50% more travel time  	5 per trip 	3 per trip 	10 per trip 	Yes Legal to keep up to 2 striped bass that are at least 18 inches in length	No Advisory <i>Fish are Safe to Eat</i> 	<input type="checkbox"/> TRIP B
NEITHER TRIP	I WOULD NOT GO ON EITHER OF THESE FISHING TRIPS						<input type="checkbox"/> NEITHER TRIP

How confident do you feel about choice 3?



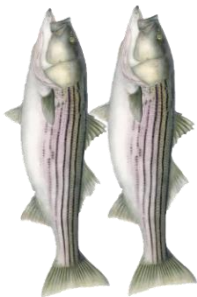







1 2 3 4 5
(not confident) (very confident)

Identifier number

26. Hypothetical choice 4: Suppose that you could only choose from the CAPE FEAR FISHING TRIP OPTIONS BELOW (Trip A, Trip B, or neither trip). **If all other factors were equal, which would you prefer?**

Please choose Trip A, Trip B or neither trip



	Travel Time	Number of small striped bass	Number of large striped bass	Number of Shad	Allowed to keep striped bass?	Fish Consumption advisory	I would choose...
TRIP A	25% more travel time 	3 per trip 	2 per trip 	2 per trip 	Not legal to keep striped bass 	No Advisory <i>Fish are <u>Safe</u> to Eat</i> 	 <input type="checkbox"/> TRIP A
TRIP B	No Change 	5 per trip 	0 per trip	0 per trip	Yes Legal to keep up to 2 striped bass that are at least 18 inches in length	No Advisory <i>Fish are <u>Safe</u> to Eat</i> 	<input type="checkbox"/> TRIP B
NEITHER TRIP	I WOULD NOT GO ON EITHER OF THESE FISHING TRIPS						<input type="checkbox"/> NEITHER TRIP

How confident do you feel about choice 4?

1 2 3 4 5
(not confident) (very confident)

Identifier number _____

27. The Cape Fear River, the longest river entirely within North Carolina, once supported thriving stocks of migratory fish including American shad, shortnose and Atlantic sturgeon and striped bass. Migratory fish populations within the Cape Fear River have declined substantially over the past two centuries, in large part due to lack of access to suitable spawning habitat. Modifying navigational obstacles, including the existing locks and dams, will help these fish reach upstream habitats, promote natural recruitment, and improve recreational fishing opportunities.

Modifying the existing locks and dams will require financial resources for planning and construction.

In principle, would you be willing to contribute a one-time donation of \$5 to a special fund dedicated to improving the ability of migratory species to reach suitable spawning habitat?

The fee donation would be collected and used by Cape Fear River Watch (www.capefearriverwatch.org), a nonprofit organization dedicated to protecting and improving the water quality of the Lower Cape Fear River Basin. All funds received from the program would be used to improve fish migration and habitat. These changes are expected to increase the quantity and size of fish in the Cape Fear River.

Yes, I would be willing to donate an additional \$5 to improve fish habitat and the quality of recreational fishing in the Cape Fear River.

No, I am not willing to donate an additional \$5 to improve fish habitat and the quality of recreational fishing in the Cape Fear River.

27b. If NO, what is the primary reason that you are not willing to contribute to the conservation fund?

- It is not my responsibility to pay for environmental protection and management of the Cape Fear River.
- I do not believe the money will be used effectively.
- I do not believe that natural resources in the Cape Fear River need additional protection.
- I do not believe that modifying locks and dams will improve fish stocks and fishing quality.
- I cannot afford to pay. The fee is too expensive.
- Other _____.

PLEASE TELL US ABOUT YOURSELF

28. Where do you live? State _____ County _____ City _____
(leave blank if you do not live in a city)

29. In which age group are you?

- Under 20 years 30-39 years 50-59 years over 69 years
- 20-29 years 40-49 years 60-69 years

30. Are you male or female? Male Female

31. What is the highest level of education that you have completed?

- Elementary school Some College/University Masters or other graduate degree
- High school College/University Degree

32. Are you married? Yes No

33. Are you currently employed? Yes No

34. What is your approximate **annual household income before taxes** (for you and your spouse combined, if you have a spouse)? (Please recall that this survey is completely anonymous)

- UNDER \$30,000 \$110,000 - \$129,999
- \$30,000 - \$49,999 \$130,000 - \$149,999
- \$50,000 - \$69,999 \$150,000 - \$169,999
- \$70,000 - \$89,999 \$170,000 - \$189,999
- \$90,000 - \$109,999 \$190,000 and ABOVE

35. How many adults (18 years or over) live in your household? _____

36. How many children (17 years or younger) live in your household? _____