



2023

UNDERSTANDING NORTH CAROLINA RESERVOIR STRIPED BASS AND BODIE BASS ANGLERS

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Executive Summary

Striped Bass and Bodie Bass fishing in lakes and reservoirs is an important recreational activity and a fishery that is intensively managed. To date, there has not been dedicated social science research to collect information from lake or reservoir Striped Bass and Bodie Bass anglers. There is a management plan for these species in development, and this project was completed to gain a better understanding of lake and reservoir Striped Bass and Bodie Bass anglers.

A mixed methods survey was conducted in Fall 2023. The survey was sent to 22,455 residents and 2,451 nonresidents that held a license with fishing privileges at any point during 2022. The questionnaire was based on previous fisheries management surveys and was developed by the Social Science Team and Inland Fisheries Division. The questionnaire was open from August 22nd through December 1st, 2023. Data were analyzed using IMPLAN (IMPLAN Group, LLC), Stata (Statacorp) and NVivo (QSR International).

Results suggest that an estimated 258,219 anglers fished for Striped Bass and Bodie Bass in lakes or reservoirs in 2022. Each angler spent an average of 18 days fishing, and took 13 trips, which could have been one day or multiple days. On average, North Carolina lake and reservoir Striped Bass and Bodie Bass anglers spent \$127.27 per person per trout fishing trip, which totaled \$430,840,906.22 in trip-related expenditures. This calculated to a trip-related economic impact of \$491,526,454.84 in North Carolina.

Lake or reservoir Striped Bass and Bodie Bass anglers reported fishing in general and specifically for lake or reservoir Striped Bass or Bodie Bass for over 30 years. Most respondents reported their Striped Bass and Bodie Bass fishing expertise as competent or proficient.

Anglers were somewhat satisfied with their Striped Bass and Bodie Bass fishing experiences in North Carolina. Anglers reported fishing mostly in Lake Norman, W. Kerr Scott Reservoir, Lake Gaston and Badin Lake, and primarily from a motorized boat. The biggest reasons contributing to negative impacts on their fishing experience include not having enough trophy Striped Bass and Bodie Bass, and indicating the lake they were fishing at was not stocked with Striped Bass. Respondents are most satisfied with being outdoors, being close to the water and relaxation.

Just about half of respondents knew that Striped Bass and Bodie Bass were stocked in lakes and reservoirs across North Carolina. If they knew, it was most often through word of mouth, the NCWRC website or social media. Respondents also shared they thought either there should be more Striped Bass stocked and less Bodie Bass or the stocking program should remain the same but would also like updated information on stocking locations. Respondents were supportive of a potential “No culling” regulation in the summer months for Striped Bass in reservoirs.

Results from this project show that while there are many relatively positive aspects of the lake and reservoir Striped Bass and Bodie Bass fishing experience, there is still room for improvement. Respondents shared ideas for improving the stocking program and communication efforts. Results from this project will also inform the forthcoming Reservoir Striped Bass and Bodie Bass Management Plan.

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Introduction

Striped Bass (*Morone saxatilis*) and Bodie Bass (hybrid Striped Bass, cross between Striped Bass and White Bass) are intensively managed fisheries in North Carolina. In addition to the native anadromous populations of Striped Bass that exist in the coastal region of the state, the NCWRC has stocked Striped Bass and Bodie Bass into many lakes and reservoirs across North Carolina. The Striped Bass and Bodie Bass stocked in these reservoirs are typically not able to reproduce naturally, so populations are maintained through stockings. As part of a larger evaluation of the Striped Bass and Bodie Bass management, the Commission collected information from anglers who target Striped Bass and Bodie Bass in North Carolina lakes, reservoirs, and their tributaries. The specific objectives of this research were to:

- Understand their motivations, preferences, and habits for fishing these species
- Assess their participation, usage patterns, and avidity levels
- Estimate their trip-related expenditures and resulting economic impact
- Determine preferences for management of the Morone program including stocking regimes and changes to regulations

Methods

Questionnaire Design and Survey Sample

The study was conducted in Fall 2023 with questionnaire design taking place in July and August and survey implementation from August to December. The questionnaire design was based on previous fisheries management surveys (Wildlife Resources Commission 2023) and was developed by the Social Science Team and Inland Fisheries Division. A modified version of the Tailored Design Method (Dillman et al. 2014) was used to collect data via mixed methods. An online survey was emailed to 22,455 residents and 2,451 nonresident license holders with fishing privileges during 2022 who were over the age of 18. Additionally, 239 emails were sent to license holders who identified themselves as a Striped Bass and Bodie Bass angler in a previous fisheries survey. The initial email was sent on August 22, 2023, with a reminder on August 28th. The online survey was hosted on Qualtrics XM. A letter including a push-to-web QR code and link with a unique identifier code that respondents had to enter to begin the survey was then mailed to nonrespondents two weeks after the first email reminder. A second reminder email was sent to nonrespondents on September 20th. Two weeks after the second reminder email, nonrespondents were mailed a survey packet that included a cover letter, questionnaire, and a business reply envelope.

Quantitative and Qualitative Data Analysis

Data were analyzed using Stata 18 for quantitative analysis and NVivo for qualitative analysis. Quantitative analysis included descriptive statistics, frequencies, and count data. The satisfaction-importance matrix was adapted from Alamanza et al. (1994). Qualitative data were analyzed using thematic analysis techniques. Qualitative data were grouped by theme and only themes with more than

10% agreement were developed. This is done to ensure the most salient themes are developed. Economic data were analyzed using IMPLAN and 2022 statistics.

Economic Impact Assessment

The economic impact to North Carolina's economy of Striped Bass and Bodie Bass fishing trips in lakes, reservoirs, and their tributaries was estimated using survey-sourced data for an Input-Output model using IMPLAN software. This method has been used for economic impact assessments of outdoor recreation activities (Jewell et al., 2023, Watkins & Jewell, 2023). It uses data collected from users on participation rates, equipment, and trip expenditures along with data on the North Carolina economy to generate multiplier effects (direct, indirect, and induced) from that activity. This method was adapted for this project to examine an abbreviated list of trip-related expenditures, without equipment expenditures, to assess the economic impact of Striped Bass and Bodie Bass fishing trips to lakes or reservoirs, and as such, is not comparable to other NCWRC economic impact studies utilizing the full economic impact methodology.

Striped Bass and Bodie Bass Fishing Participation

As North Carolina does not offer a specific license for fishing Striped Bass and Bodie Bass, the number of Striped Bass and Bodie Bass anglers was estimated via the data collection method of this survey. In recruitment of the survey, the emails to respondents did not mention Striped Bass and Bodie Bass, but instead marketed the survey as a "Fisheries management survey." This was done to ensure survey respondents were representative of a random sample of licensed anglers, not a sample biased towards Striped or Bodie Bass anglers. After consenting to take the survey, the first question in the survey instrument asked respondents what fish species they fished for in North Carolina in the last 12 months. If participants did not select "Striped Bass or hybrid Striped Bass¹," they were directed towards questions asking why they did not fish for Striped Bass or Bodie Bass and then exiting them from the survey. Only the respondents that initiated the survey from the email were counted in the estimation, because once respondents received the full survey packet, it was clear from the questionnaire that it was a Striped Bass and Bodie Bass survey. Based on this screener question, 26% of emailed respondents reported fishing for Striped Bass and Bodie Bass, and 18% (n = 449) of emailed respondents reported fishing for Striped Bass and Bodie Bass in lakes or reservoirs specifically.

Data on the total number of freshwater anglers from the NCWRC license holder database, ALVIN (Automated License and Vessel Information Network), was then used to estimate the total number of Striped Bass and Bodie Bass anglers in NC. The 2022 number of certified freshwater fishing licenses shows there were 1,404,125 freshwater anglers in North Carolina. Therefore, the estimate of Striped Bass and Bodie Bass anglers is 364,511. Further, there are an estimated 258,219 Striped Bass and Bodie Bass anglers who fish lakes or reservoirs and their tributaries.

¹ Note: The questionnaire used the terminology Striped Bass and hybrid Striped Bass due to "hybrid Striped Bass" being another common name for Bodie Bass

Sampling error describes the deviation in the sample from the population being measured. The maximum sampling error is calculated by dividing the standard deviation of the population by the square root of the size of the sample and multiplying by the Z-score value, which is based off the confidence interval of 95% (Dillman et al., 2014). The sample size from this project is 449 and an estimated population of 258,219, therefore the maximum possible sampling error for the entire sample of Striped Bass and Bodie Bass anglers is 5% (246,290-270,148).

$$B = \left(\sqrt{\frac{\frac{N_p(.25)}{N_s} - .25}{N_p - 1}} \right) (1.96)$$

Trip Expenditures

The survey collected information on expenditures for a typical Striped Bass and Bodie Bass fishing trip. The questionnaire included five items: Food and beverages, Transportation to and from where you fish, Fishing expenses, Lodging, and “Other” trip expenses. Trip expenditure profiles were created using these itemized expenditures combined with the average number of trips per person, and the average number of people fished with. This was then extrapolated to the entire Striped Bass and Bodie Bass angler population.

Multiplier Effects

Itemized trip-related expenditures of Striped Bass and Bodie Bass anglers in lakes or reservoirs were organized into industry-specific sectors to determine any secondary impacts resulting from those expenditures. The IMPLAN input-output model uses these to provide economic indicators to determine the overall impact of Striped Bass and Bodie Bass fishing trips in lakes or reservoirs. The model generates three kinds of impacts: Direct impacts, Indirect impacts, and Induced impacts. Direct impacts describe the impacts to a local industry, indirect impacts describe the impacts from regional business purchases, and induced impacts stem from household spending of income generated by the activity at hand. These three impacts are comprised of three economic indicators. Employment is a measure of the number of full-time, part-time, and seasonal employment supported by Striped Bass and Bodie Bass anglers in lakes or reservoirs fishing trips. Labor income describes the income from that employment, and the value-added indicator is comprised of the labor income in addition to taxes on production and imports and other property income. All these indicators combined estimate the total economic impact of Striped Bass and Bodie Bass fishing trips in lakes or reservoirs.

Results

In total, there were 6,528 respondents to the survey. The majority of participants responded to the survey online, either through emails or push-to-web methods (**Figure 1**), whereby respondents were contacted through the mail and encouraged to type in the survey link and access code to complete the survey online.

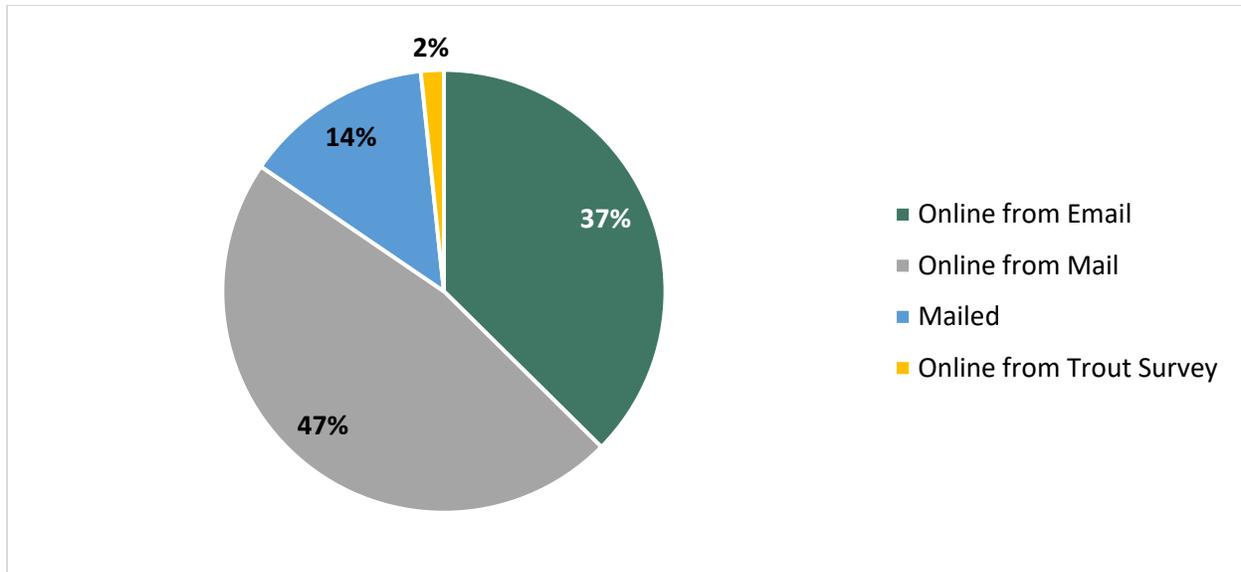


Figure 1: Method of submission for all respondents (n = 6,528)

The first question asked respondents what species of freshwater fish they targeted in the last 12 months. The purpose of this question was to screen out non-Striped Bass and Bodie Bass anglers, as well as estimate population numbers of anglers that fish for specific species. As this question determined population estimates, only the responses from the online version that came from the emailed distribution were analyzed (see methodology for rationale).

The top five types of freshwater fish species respondents fished for were Crappie, Panfish, Black Bass, Catfish and Striped Bass and Bodie Bass (**Figure 2**). Some respondents reported wanting to fish for anything they could catch (24%), and 12% reported they did not go fishing in the last 12 months. Other species included saltwater species, not fishing, and bass (**Appendix A.1**). On average, anglers selected 2-3 species groups.

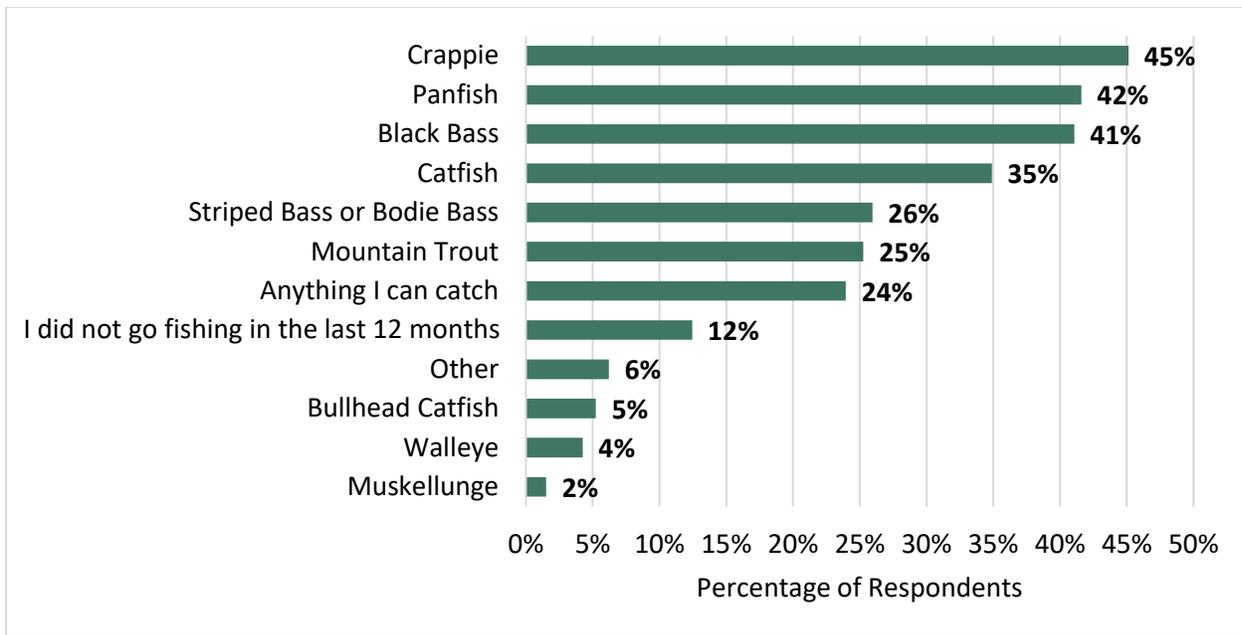


Figure 2: Freshwater species respondents targeted (n = 2,442)

Respondents who reported fishing for Striped Bass and Bodie Bass were asked to share where they fished for those species (**Figure 3**). Half of respondents fished in lakes or reservoirs (n = 899), and 22% reported fishing for Striped Bass and Bodie Bass in both lakes or reservoirs and coastal rivers (n = 396), while the remaining 28% only fished for Striped Bass and Bodie Bass in Coastal Rivers. For the remainder of the questions in this report, respondents that reported only fishing for Striped Bass and Bodie Bass in Coastal Rivers were excluded.

An estimated 258,219 anglers fished for Striped Bass and Bodie Bass in the last 12 months. Based on the NC Wildlife ALVIN database, 13% of NC freshwater angler license holders are non-residents. Therefore, it is estimated that approximately 33,600 people came to NC to fish for Striped Bass and Bodie Bass in lakes or reservoirs.

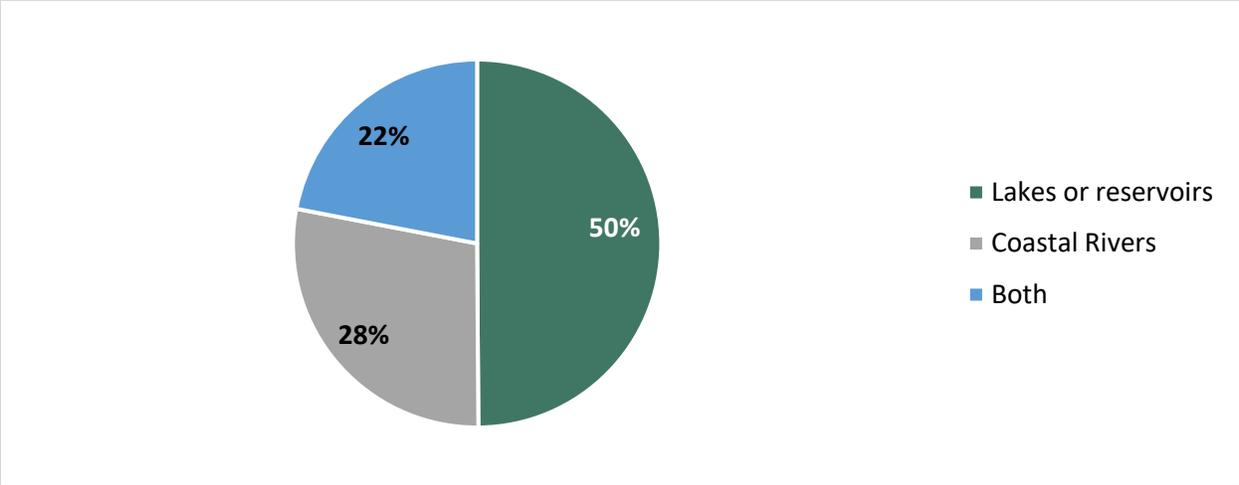


Figure 3: Where respondents reported fishing for Striped Bass and Bodie Bass (n = 1,802)

All Respondents were asked a series of questions about their demographic information (**Table 1**). Most respondents were male (96%), white (93%), non-Hispanic (99%) and older than 55 (72%). Most respondents had at least a bachelor’s or 4-year degree (41%). The counties with the largest number of respondents were Wake (n = 413), Guilford (n = 169), New Hanover (n = 148), Mecklenburg (n = 146) and Forsyth (n = 144) counties. Nonresident respondents primarily live in Virginia (n = 172) and South Carolina (n = 142).

Demographic characteristics were compared between lake and reservoir Striped Bass and Bodie Bass anglers and non-lake or reservoir Striped Bass and Bodie Bass anglers in North Carolina through a chi square test to determine if there were statistically significant differences among characteristics. There were no differences between Striped Bass and Bodie Bass anglers regarding gender, race, or ethnicity. However, there was in age ($\chi^2 = 16.40, p = 0.022$) and education ($\chi^2 = 11.19, p = 0.048$). With age, there were more Striped Bass and Bodie Bass anglers between 45-74 than non-Striped Bass and Bodie Bass anglers. However, there were more non-Striped Bass and Bodie Bass anglers over the age of 75. Considering education, more Striped Bass and Bodie Bass anglers reported some college or an associate degree (41%) was their highest education level than non-Striped Bass and Bodie Bass anglers (37%). Further, more non-Striped Bass and Bodie Bass anglers reported having at least a bachelor’s or 4-year degree (42%) compared to Striped Bass and Bodie Bass anglers (37%).

Table 1: Demographic characteristics of survey respondents

		Lake or reservoir Striped Bass and Bodie Bass angler n (%)	Non-lake or reservoir Striped Bass and Bodie Bass angler n (%)	Overall respondents n (%)
Gender	Male	1,079 (97%)	4,480 (96%)	5,919 (96%)
	Female	37 (3%)	184 (4%)	221 (4%)
Race	White	1,041 (93%)	291 (94%)	5,778 (93%)
	Black or African American	26 (2%)	82 (2%)	108 (2%)
	American Indian or Alaskan Native	17 (2%)	72 (1%)	89 (1%)
	Asian	4 (<1%)	15 (<1%)	19 (<1%)
	Native Hawaiian or another Pacific Islander	1 (<1%)	5 (<1%)	6 (<1%)
	Other	10 (1%)	32 (1%)	42 (1%)
Ethnicity	Hispanic, Latino/a, or Spanish	6 (1%)	26 (1%)	32 (1%)
	Not Hispanic, Latino/a, or Spanish	1,041 (99%)	4,692 (99%)	5,733 (99%)
Age	18-24	7 (1%)	47 (1%)	54 (1%)
	25-34	35 (3%)	141 (3%)	176 (3%)
	35-44	79 (7%)	374 (7%)	453 (7%)
	45-54	218 (19%)	879 (17%)	1,097 (18%)
	55-64	335 (30%)	1,440 (29%)	1,775 (29%)
	65-74	353 (31%)	1,532 (30%)	1,885 (31%)
	75-84	91 (8%)	593 (12%)	684 (11%)
	85+	4 (<1%)	30 (1%)	34 (1%)
Education	Less than high school	19 (2%)	69 (1%)	88 (1%)
	High school diploma	227 (21%)	955 (19%)	1,182 (19%)
	Some college or associate degree	448 (41%)	1,863 (37%)	2,311 (38%)
	Bachelor's or 4-year degree	273 (25%)	1,342 (27%)	1,615 (27%)
	Graduate or professional degree	132 (12%)	742 (15%)	874 (14%)

Lake or Reservoir Striped Bass and Bodie Bass Angler Trip-related Economic Impact

To determine the estimated expenditures and associated economic impact of fishing trips for Striped Bass and Bodie Bass in lakes or reservoirs, respondents were asked a series of questions regarding their typical trips and how much they spend on trip-related items.

On average, a Striped Bass and Bodie Bass angler spent 18 days fishing in lakes or reservoirs, and took 13 trips, which could have been one day or multiple days. The average angler went fishing for Striped Bass and Bodie Bass with one other person. On average, lake or reservoir Striped Bass and Bodie Bass anglers spent \$127.27 per person per trip in North Carolina. When applied to the estimated number of Striped Bass and Bodie Bass anglers in lakes or reservoirs and the average number of trips per angler, annual trip-related expenditures came to a total of \$430,840,906 (**Table 2**).

Table 2: Total angler trip-related expenditures (n = 1,051)

Expenditure Item	Total Expenditures
Food & Beverages	\$86,425,460.33
Transportation	\$152,911,791.74
Fishing Expenses	\$132,684,916.47
Lodging	\$44,939,208.22
Other expenses	\$13,879,529.47
Total	\$430,840,906.22

These trip-related expenditures resulted in the total economic impact of Striped Bass and Bodie Bass fishing trips to lakes or reservoirs in North Carolina in the last 12 months (August 2022-December 2023, depending on when respondents took the survey) of \$491,526,455 (**Table 3**). Striped Bass and Bodie Bass trips in lakes or reservoirs directly and indirectly supported 4,011 full- and part-time jobs across the state. For every dollar spent on Striped Bass and Bodie Bass fishing trips in North Carolina, \$1.97 was returned to the state economy. This is because the Social Accounting Matrix (SAM) multiplier was 1.97.

Table 3: Summary of Economic Indicators and Impact of Striped Bass and Bodie Bass fishing trips in lakes or reservoirs in North Carolina

NC Striped Bass and Bodie Bass Angler Trip Purchases	
Trip Expenditures	\$430,840,906.22
NC Striped Bass and Bodie Bass Angler Trip Economic Impact	
Total Economic Impact	\$491,526,454.84
Economic Indicators	
Labor Income	\$174,881,628.17
Value Added	\$272,578,293.98
Jobs Supported	4,011
Tax Revenue from Trip Expenditures	
State	\$17,966,729.58
Federal	\$40,414,214.91

Lake and Reservoir Striped Bass and Bodie Bass Angler Experience & History

Striped Bass and Bodie Bass anglers who fish in lakes or reservoirs were asked questions about their experiences and history. The first set of questions asked respondents² to share how long they have been fishing on lakes or reservoirs in general and how long they have been specifically fishing for Striped Bass and Bodie Bass in North Carolina lakes or reservoirs (**Figure 4**). The majority of respondents reported fishing on lakes or reservoirs in North Carolina for over 30 years. Albeit less than general fishing, most respondents have been fishing for Striped Bass and Bodie Bass for 30 years or more (39%). Additionally, 30% of respondents had been fishing for Striped Bass and Bodie Bass for less than 10 years, while 23% had been fishing on lakes and reservoirs for less than 30 years.

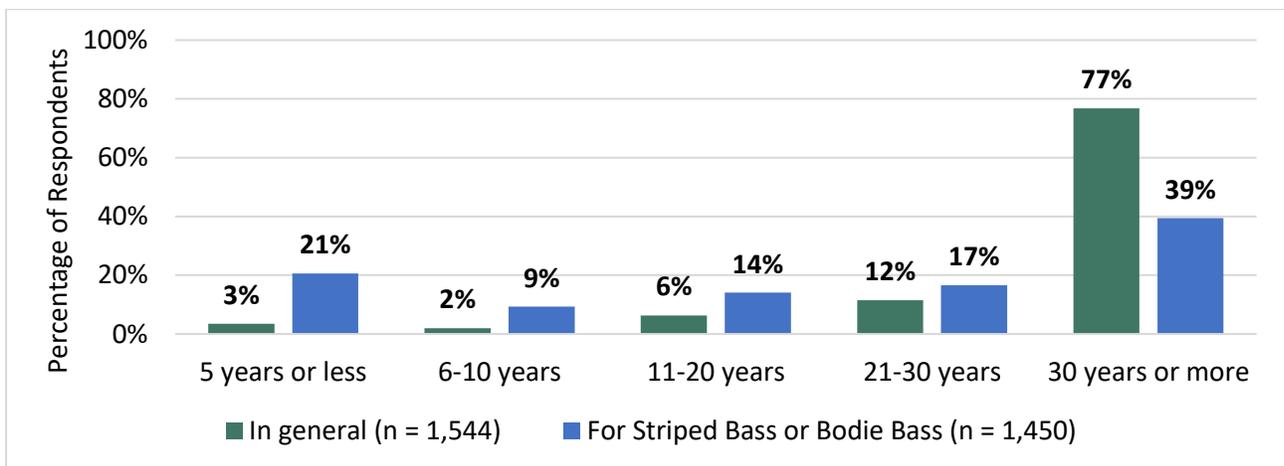


Figure 4: How long respondents have been fishing on NC lakes or reservoirs in general and for Striped Bass and Bodie Bass

Respondents were asked to self-report their level of expertise as Striped Bass and Bodie Bass anglers (**Figure 5**). Most respondents reported their level of expertise as competent (34%) or proficient (30%). Not as many anglers reported being advanced (17%) or expert (4%) level.

² Note: For the following sections, the term “respondents” refers to anglers who fish for Striped Bass and Bodie Bass in lakes or reservoirs

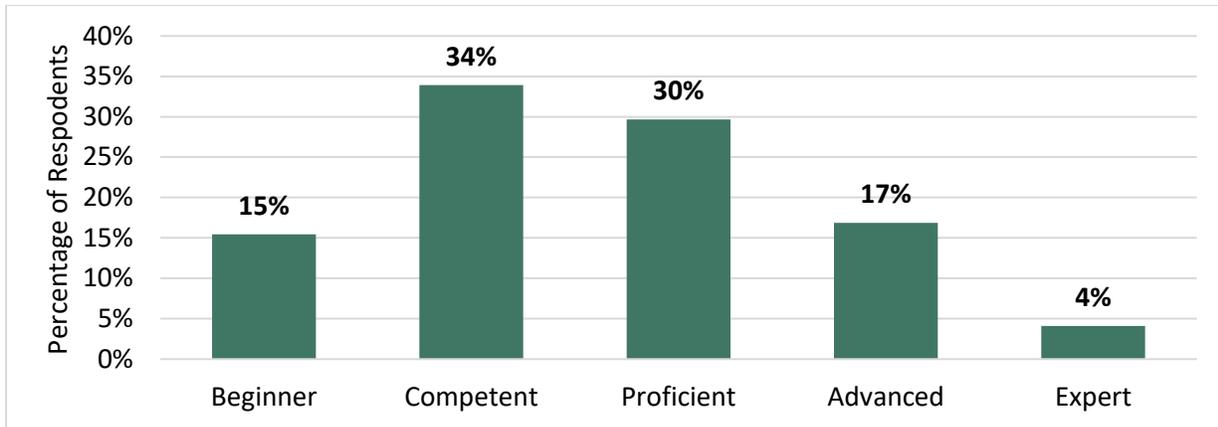


Figure 5: Respondents self-reported expertise as a Striped Bass and Bodie Bass angler (n = 1,442)

When comparing the years respondents have been fishing for Striped Bass and Bodie Bass in lakes or reservoirs to self-reported expertise, there is a statistically significant difference ($\chi^2 = 474.38$, $p < 0.001$). As expected, respondents that reported fishing for Striped Bass and Bodie Bass for longer reported higher levels of fishing expertise.

Further, comparing the years respondents have been fishing for Striped Bass and Bodie Bass in lakes or reservoirs to age, there is a statistically significant difference ($\chi^2 = 104.74$, $p < 0.001$). As expected, older respondents reported fishing for Striped Bass and Bodie Bass longer than younger respondents.

Respondents were asked if they typically fished for Striped Bass, Bodie Bass, or both about equally (**Appendix A.2**). The largest proportion of respondents (40%) reported fishing mostly for Striped Bass, followed by 37% of respondents who fish for both Striped Bass and Bodie Bass about equally. Only 8% of respondents reported targeting mostly Bodie Bass, and 15% of respondents were not sure if they primarily targeted Striped Bass and Bodie Bass.

When comparing whether respondents fish for Striped Bass, Bodie Bass, or both about equally to self-reported expertise, a chi square test shows a significant result ($\chi^2 = 242.88$, $p < 0.001$). Beginner (43%) and competent (15%) anglers are more likely to be unsure if they primarily fish for Striped Bass and Bodie Bass than proficient (5%), advanced (5%) or expert (2%) anglers. There is not a significant relationship between typical moronid species fished and age.

Next, respondents shared if their level of Striped Bass and Bodie Bass fishing activity has changed since they began Striped Bass and Bodie Bass fishing (**Figure 6**). Most respondents reported that their fishing activity has decreased since they started fishing for Striped Bass and Bodie Bass.

Similarly, another chi square test was run to compare changing levels of fishing activity and age, and a significant difference was detected ($\chi^2 = 59.02$, $p < 0.001$). Anglers over 45 were more likely to report their fishing activity has decreased than younger anglers.

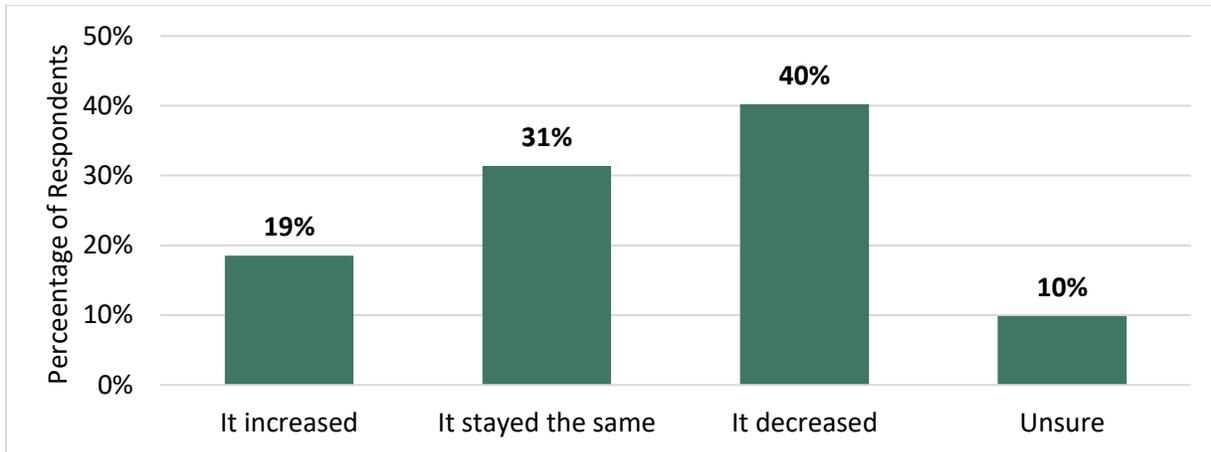


Figure 6: How respondents' level of fishing activity has changed since they began fishing for Striped Bass and Bodie Bass (n = 1,440)

Next, respondents shared if, while fishing for Striped Bass, they mostly keep the legal fish they catch, they mostly practice catch and release, or do both about equally (**Appendix A.3**). Just under half of respondents reported they mostly practice catch and release when fishing for Striped Bass. However, when combined with the anglers do both about equally, nearly 75% of respondents reported practicing catch and release at least some of the time. Anglers with higher self-reported expertise fishing for Striped Bass and Bodie Bass in reservoirs or lakes were more likely to report practicing both catch and release and legal harvest equally, while those with less expertise were more likely to report practicing catch and release only ($\chi^2 = 131.88$, $p < 0.001$).

Similarly, respondents were asked if while fishing for Bodie Bass, they mostly keep the fish, mostly practice catch and release, or do both about equally (**Appendix A.4**). Again, most respondents practice catch and release while fishing for Bodie Bass. Similarly to Striped Bass, 66% of anglers reported practicing catch and release at least some of the time. Self-reported expert anglers fishing for Striped Bass and Bodie Bass in reservoirs or lakes were more likely to report they only fish for Striped Bass ($\chi^2 = 84.43$, $p < 0.001$). However, all expertise levels were also more likely to report practicing catch and release with Bodie Bass than Striped Bass.

Considering responses to both questions, 77% of respondents are practicing catch and release at least some of the time with either Striped Bass and/or Bodie Bass.

Lake or Reservoir Striped Bass and Bodie Bass Angler Fishing Habits

A set of questions asked respondents about their habits while Striped Bass and Bodie Bass fishing in lakes or reservoirs. The first question asked respondents to select all the lakes where they went fishing for Striped Bass and Bodie Bass in the last 12 months (**Figure 7**). Lake Norman, which is stocked with Bodie Bass, was the most common lake fished, followed by W. Kerr Scott Reservoir, which is stocked with both Striped Bass and Bodie Bass. Lake Gaston (Striped Bass) and Badin Lake (Striped Bass) follow in third and fourth, respectively. Other lakes or reservoirs respondents reported fishing in include John H. Kerr Reservoir, Rivers, and Jordan Lake (**Appendix A.5**). On average, respondents reported fishing in two lakes.

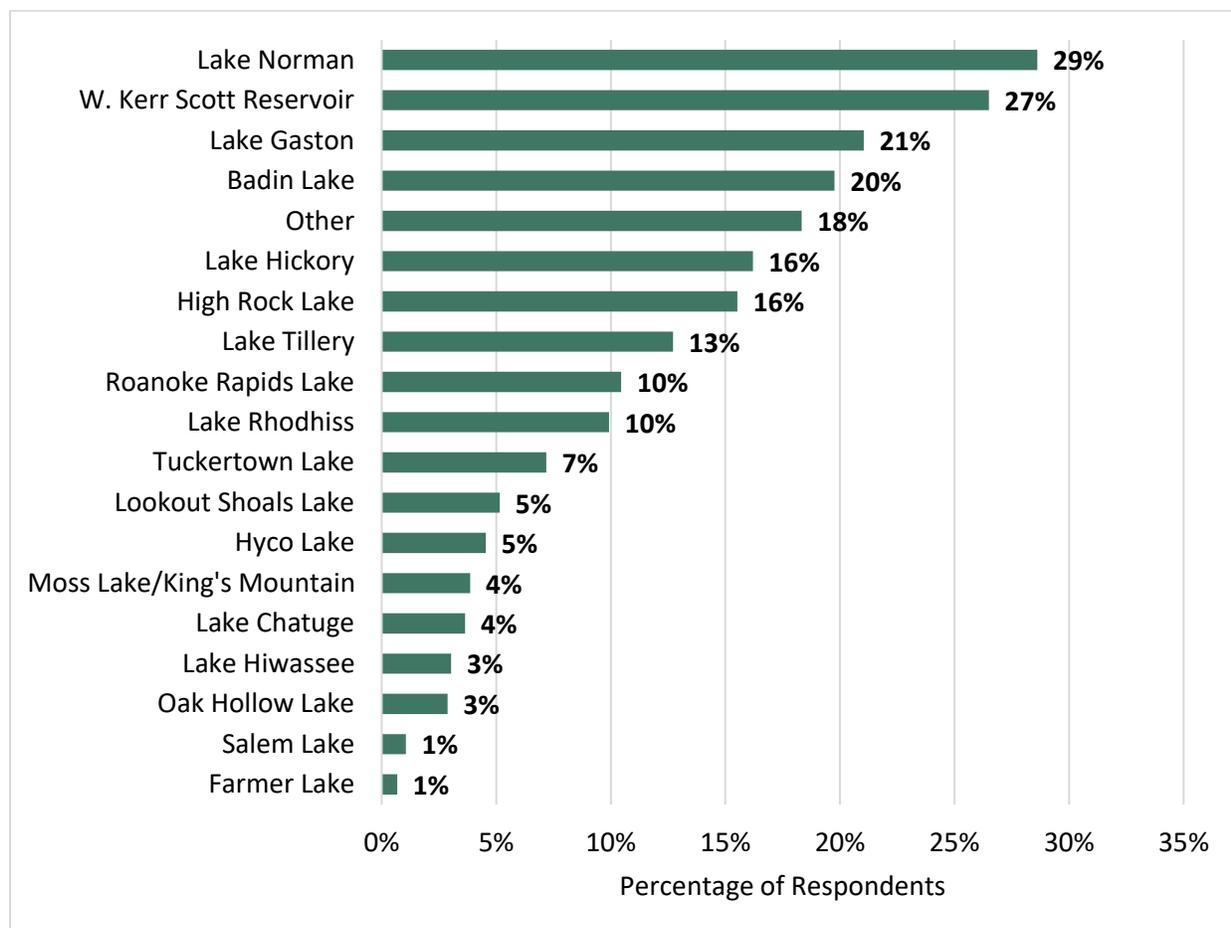


Figure 7: Lakes or reservoirs where respondents have fished for Striped Bass and Bodie Bass in the last 12 months (n = 1,321)

Respondents were then asked to rank the lakes that they fished in terms of use from most often fished to least often fished (**Figure 8**). Respondents to the online survey were only presented with lakes they had selected in the previous question. Most respondents reported fishing Lake Norman the most, followed by W. Kerr Scott Reservoir.

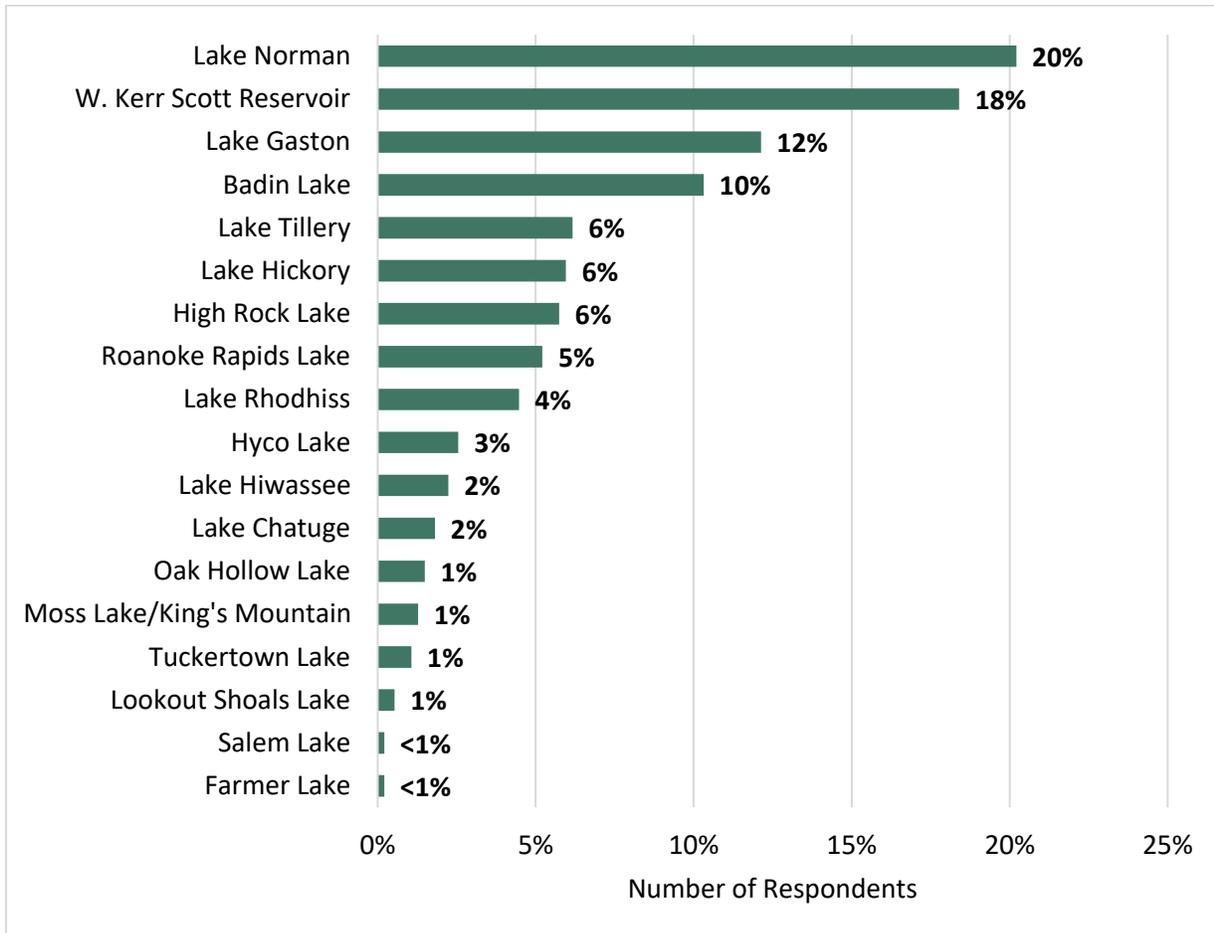


Figure 8: Most fished lakes or reservoirs by number of respondents (n = 940)

Overall, respondents are mostly fishing for Striped Bass and Bodie Bass in lakes or reservoirs from a motorized boat (87%, **Appendix A.6**). Other methods include a dock, a motorized boat, and banks. When comparing levels of expertise, beginner anglers are more likely to exclusively bank fish than those with higher self-reported expertise ($\chi^2 = 99.29$, $p < 0.001$). There are also significant differences when comparing fishing method with age. More respondents under 35 use kayaks than older respondents. Interestingly, respondents between the age of 35 – 44 (9%) and 65 – 74 (9%) reported bank fishing only, which was higher than the other age categories ($\chi^2 = 63.97$, $p = 0.016$).

Lake or Reservoir Striped Bass and Bodie Bass Angler Satisfaction with their Fishing Experience

Respondents were asked a set of questions about their fishing experience. The first question asked them to share their overall satisfaction with their Striped Bass and Bodie Bass fishing experience in lakes or reservoirs (**Figure 9**). Overall, the largest proportion of respondents reported they were neither satisfied nor dissatisfied with their experience (32%). When comparing satisfaction to dissatisfaction, slightly more respondents said they were satisfied than dissatisfied.

When comparing satisfaction to self-reported expertise, there are statistically significant differences ($\chi^2 = 117.04, p < 0.001$). More expert anglers were dissatisfied (63%) with their experience than other expertise levels. Further, proficient (39%) and advanced (40%) anglers had the highest proportion of satisfied anglers. There are no statistically significant differences between age categories and satisfaction.

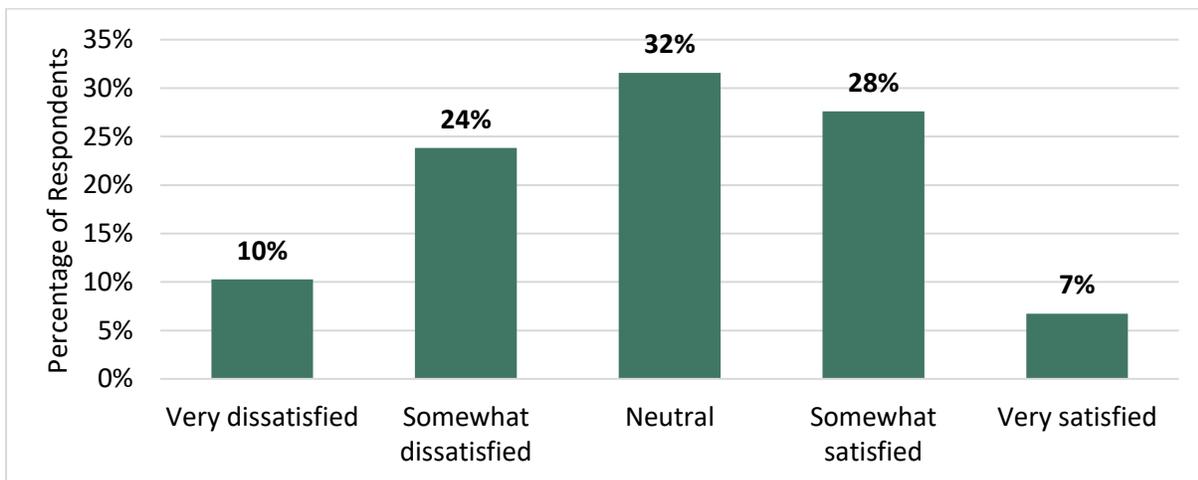


Figure 9: Respondents' satisfaction with their overall experience fishing for Striped Bass and Bodie Bass in lakes or reservoirs (n = 1,381)

Several factors that may impact satisfaction levels were then presented to respondents with a question asking them to select the degree to which those factors negatively impacted their Striped Bass and Bodie Bass fishing experience. Results are split by items that the NCWRC could control or influence and items that the NCWRC may not be able to influence. The lack of trophy Striped Bass and Bodie Bass had the largest impact on the majority of respondents (**Figure 10**). Conversely, regulations being confusing did not have a negative impact on fishing experience for the majority of respondents.

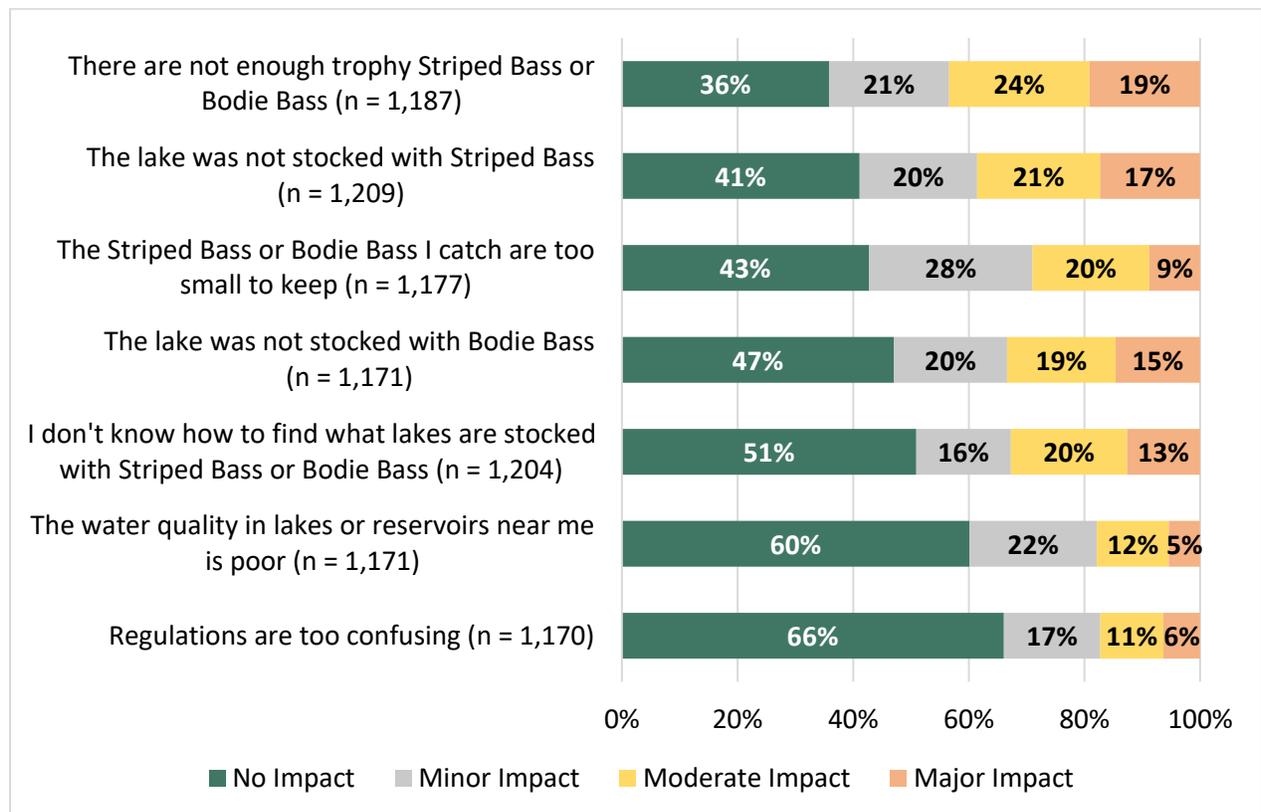


Figure 10: Negative impact(s) on fishing experience that NCWRC can control through direct management

Each statement in **Figure 10** was compared to expertise and age with significant differences as follows (**Appendix A.7**). For the following statements, anglers who rated their expertise higher were more likely to select that statement had a major negative impact on their fishing experience: “There are not enough trophy Striped Bass and Bodie Bass,” “The lake was not stocked with Striped Bass,” “The Striped Bass and Bodie Bass I catch are too small to keep,” “The lake was not stocked with Bodie Bass,” and “The water quality in lakes or reservoirs near me is poor”. Only the statement “regulations are too confusing” had more of a negative impact on beginner anglers than other expertise categories. And when it came to age comparisons, older anglers reported more major negative impacts over younger anglers, associated with the statements “There are not enough trophy Striped Bass and Bodie Bass,” “I don’t know how to find what lakes are stocked with Striped Bass and Bodie Bass,” “The water quality in lakes or reservoirs near me is poor” and “Regulations are too confusing”.

When looking at the items over which the NCWRC may not have as much influence or control, 66% of respondents indicated lakes or reservoirs being too crowded at least a minor impact on their fishing experience (Figure 11). Conversely, 86% of respondents said that not having a boat did not have a negative impact on their fishing experience. Significant differences between the impact of these statements compared to age and expertise can be found in Appendix A.8.

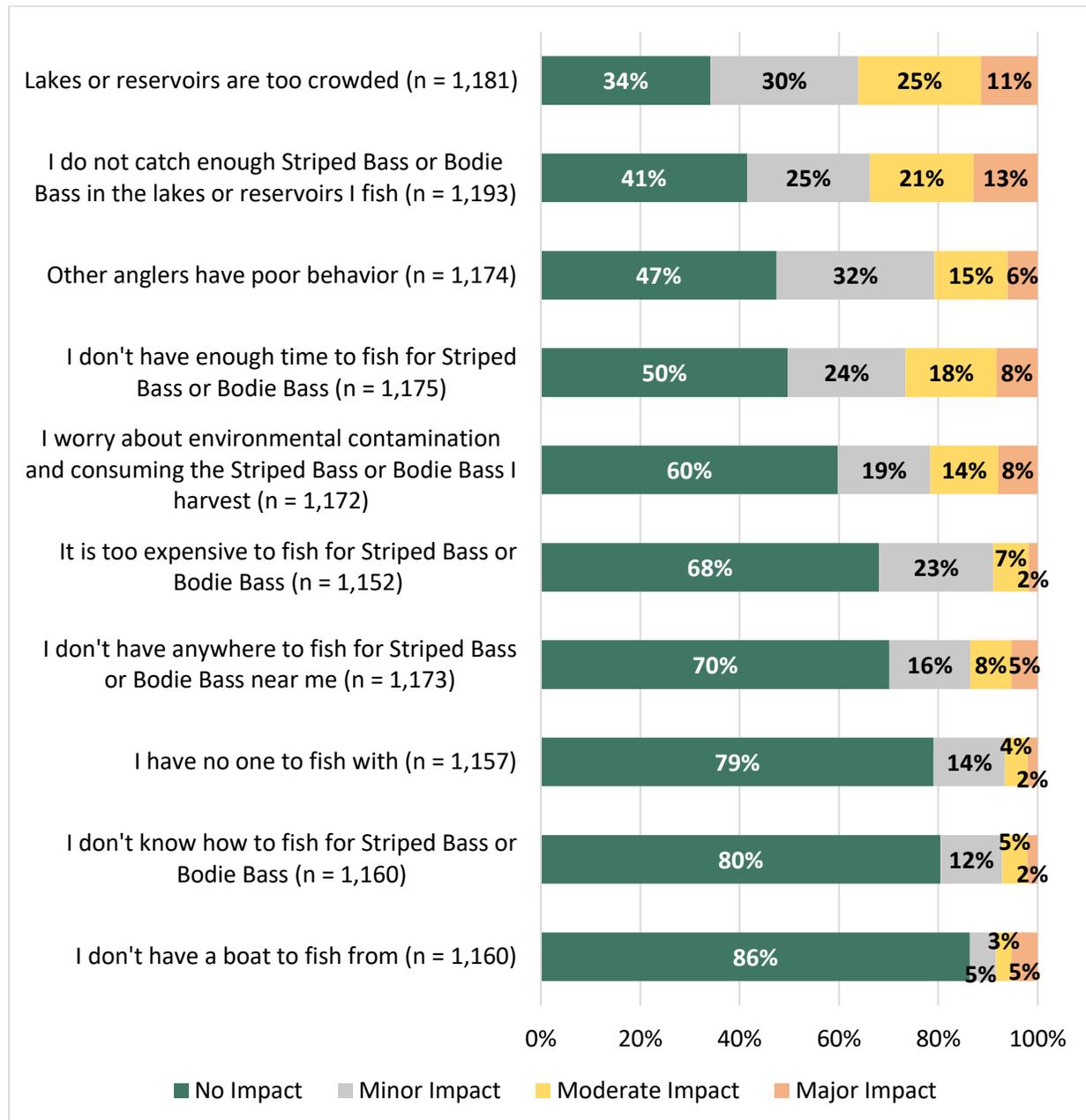


Figure 11: Negative impact(s) on fishing experience the NCWRC can not control by direct management

Next, respondents were asked to select their level of importance and satisfaction with attributes of fishing for Striped Bass and Bodie Bass in lakes or reservoirs (**Table 4**). “Being outdoors” had both the highest mean importance and mean satisfaction. “Being close to the water” and “relaxation” were the second and third highest mean importance and mean satisfaction. “Being alone” had the lowest importance score, while “Catching a trophy fish” had the lowest satisfaction score.

Table 4: Importance and satisfaction rankings for attributes of Striped Bass and Bodie Bass fishing in lakes or reservoirs

Attribute	Importance		Satisfaction	
	Mean	n	Mean	n
Being outdoors	4.21	1326	4.34	1268
Being close to the water	3.97	1305	4.24	1261
Relaxation	3.96	1319	4.14	1253
The experience of the catch	3.76	1320	3.5	1294
The challenge or sport	3.56	1303	3.67	1261
Family recreation	3.49	1308	3.8	1257
Catching a trophy fish	2.82	1303	2.92	1256
Catching the most fish possible	2.36	1302	3.02	1245
Fishing for food	2.09	1315	3.08	1252
Being alone	2.05	1286	3.23	1237

Note: Importance was ranked on a scale from 1 (Not at all important) to 5 (Extremely important); Satisfaction was ranked on a scale from 1 (Very dissatisfied) to 5 (Very satisfied)

Mean satisfaction and importance were plotted against each other in a Satisfaction-Importance Matrix (**Figure 12**). The attributes with high importance and high satisfaction are in the “Keep up the good work” category (top-right, Wade and Eagles, 2003). Those attributes are being outdoors, being close to the water, relaxation, the experience of the catch, the challenge or sport, and family recreation. Attributes with high satisfaction but low importance are in the “Possible overkill” category (Bottom right). These attributes are catching the most fish possible, fishing for food and being alone. Attributes with low importance and low satisfaction are in the “Low priority” category (Bottom left), and the only attribute in this category was catching a trophy fish. The “Concentrate here” with low satisfaction but high importance did not have any attributes (Top left).

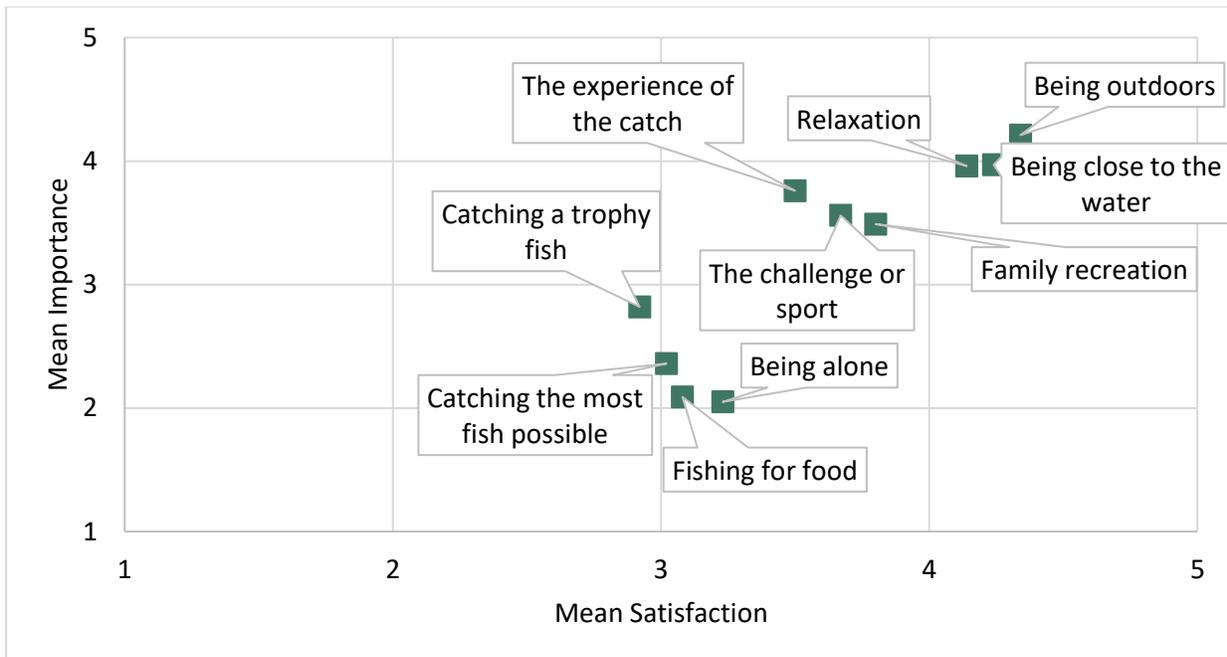


Figure 12: Satisfaction – Importance Matrix for attributes of Striped Bass and Bodie Bass fishing in lakes or reservoirs

As with other questions, the satisfaction and importance of attributes were compared to age and expertise. The full list of significant comparisons can be found in **Appendix A.9**. For example, the attribute “Catching trophy fish” did not have a statistically significant difference with age and importance but did with importance and expertise ($\chi^2 = 131.58, p < 0.001$). Expert anglers (46%) ranked this as more important than the other expertise categories (9-20%). Satisfaction of “Catching trophy fish” had statistically significant differences with both age ($\chi^2 = 41.36, p = 0.05$) and expertise ($\chi^2 = 70.18, p < 0.001$). With age, anglers over 75 (12%), between 65-74 (11%) and between 18-34 (10%) were more satisfied than anglers between 35-64 (5-7%). With expertise, expert anglers (26%) were more likely to be dissatisfied with “Catching trophy fish” than the other expertise levels (8-20%).

Lake or Reservoir Striped Bass and Bodie Bass Angler Tournament and Club Participation

Respondents were asked to share their experience with Striped Bass and Bodie Bass tournaments and clubs. Only 3% of respondents (n = 41) reported participating in a Striped Bass and Bodie Bass fishing tournament (**Appendix A.10**). A list of the specific tournaments can be found in **Appendix A.11**. Due to the low participation in tournaments and clubs, comparisons are not generalizable. Participation in fishing tournaments was compared to expertise and age. While there were not statistically significant differences with age, there was with expertise ($\chi^2 = 43.24$, $p < 0.001$). Expert (11%) and advanced (8%) anglers were more likely to have participated in a fishing tournament than the other expertise levels (1-3%). Even less respondents (1%, n = 20) reported belonging to a Striped Bass and Bodie Bass fishing club. The list of specific clubs can be found in **Appendix A.12**. Membership in fishing clubs was also compared to expertise, and statistically significant differences exist ($\chi^2 = 21.41$, $p = 0.006$). Advanced (4%) and expert (4%) anglers were more likely to have participated in a Striped Bass and Bodie Bass fishing club than other expertise levels (1%).

Lake or Reservoir Striped Bass and Bodie Bass Angler Opinions on Stocking Program

As several NC lakes and reservoirs are stocked with Striped Bass and Bodie Bass, respondents were asked a set of questions related to the NCWRC stocking program. The first question asked if they knew that Striped Bass and Bodie Bass were stocked by the NCWRC (**Figure 13**). Just over half (57%) of respondents indicated they knew the fish were stocked in lakes and reservoirs. Only respondents that knew that the fish were stocked were asked the subsequent questions related to their stocking preferences. Knowledge of stocking was compared to expertise and age. There were not statistically significant differences with age, but there was with expertise ($\chi^2 = 75.89$, $p < 0.001$). Unsurprisingly, as expertise levels advance, the percentage of respondents who knew Striped Bass and Bodie Bass were stocked in lakes or reservoirs increases. Only 36% of beginner anglers knew it was stocked, compared to 77% of expert anglers.

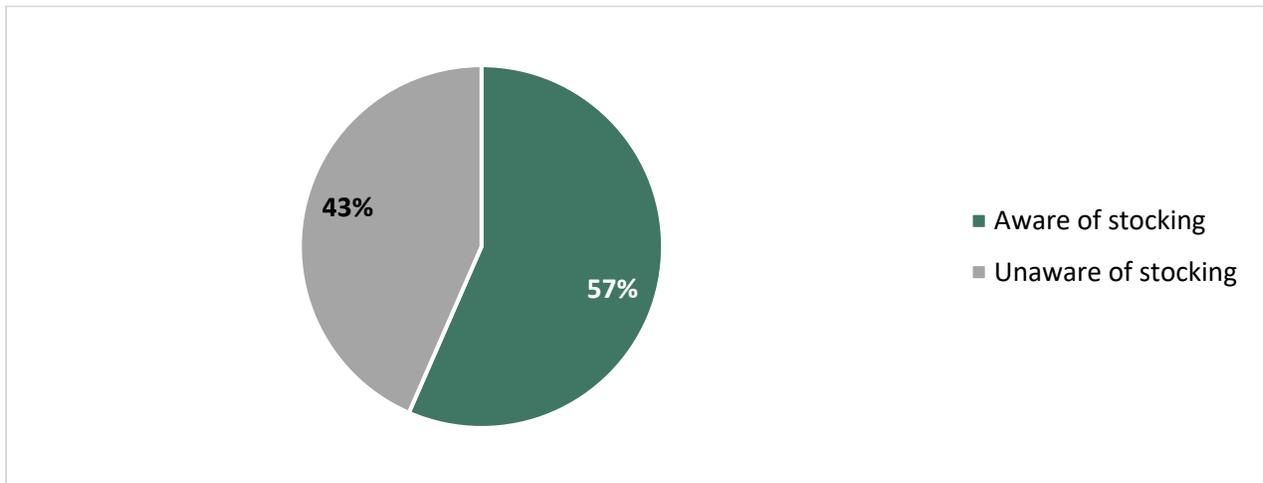


Figure 13: Whether respondents were aware lake or reservoir Striped Bass and Bodie Bass were stocked by the NCWRC (n = 1,374)

Respondents' awareness of the stocking program was compared to their overall Striped Bass and Bodie Bass fishing experience, and there was a statistically significant difference ($\chi^2 = 22.38$, $p < 0.001$). Respondents who were aware the Striped Bass and Bodie Bass in lakes and reservoirs were stocked were more likely to be somewhat or very satisfied (39%) than anglers who were unaware (29%).

Respondents that knew Striped Bass and Bodie Bass were stocked shared how they found out the lake or reservoir was stocked. The most common methods were word of mouth, the NCWRC website or social media, and “other.” Other ways include the Wildlife in North Carolina magazine, Game Wardens or knowing the biology of the fish (**Appendix A.13**). How respondents found out about stocking was compared to expertise and age, and there was a statistically significant difference with age ($\chi^2 = 55.17$, $p = 0.016$). Respondents 44 years old and younger were more likely to have found out lakes and reservoirs were stocked through word of mouth than older respondents. Although less, respondents found out about stocking by seeing it take place (3%), through signage (2%) and by catching more Striped Bass and Bodie Bass than previously.

Respondents were also asked to share their satisfaction with the current stocking program (**Figure 14**). Most respondents reported being neutral about the current program. These results are similar to satisfaction with their total fishing experience (Figure 9, this report). These results were compared, and while satisfaction levels are relatively similar, there was a statistically significant difference ($\chi^2 = 421.06$, $p < 0.001$). Typically, respondents rated their satisfaction with their overall fishing experience and the stocking program the same. However, there was one noticeable difference. Respondents who reported being very satisfied with the stocking program did not report being primarily very satisfied with their overall fishing experience.

Stocking program satisfaction was also compared to expertise and age, with a statistically significant difference with expertise ($\chi^2 = 75.69$, $p < 0.001$), but not age. Expert anglers (64%) were more likely to be dissatisfied, and the competent anglers (37%) were more likely to be satisfied.

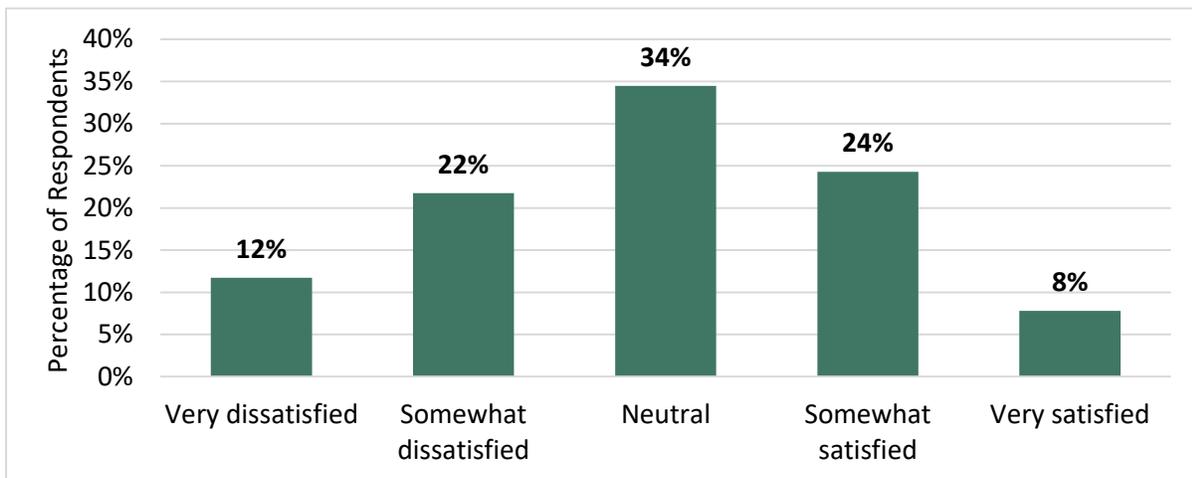


Figure 14: Respondent satisfaction with the current NCWRC Striped Bass and Bodie Bass stocking program (n = 795)

Next, respondents were presented with a series of statements regarding their preferences for the current stocking program (**Figure 15**). The statement that was selected the most often was “I think that

more Striped Bass needs to be stocked and less Bodie Bass,” followed by, “I am pleased with the stocking program and do not think anything needs to be changed.” Results suggest that anglers are happy with the current stocking program, but if things shift, respondents would be in favor of more Striped Bass and less Bodie Bass.

If respondents chose “I think the stocking program should consider new reservoirs,” they were given the opportunity to write in which ones. Answers included Falls Lake (n = 16), Fontana Lake (n = 6), and Lake James (n = 5).

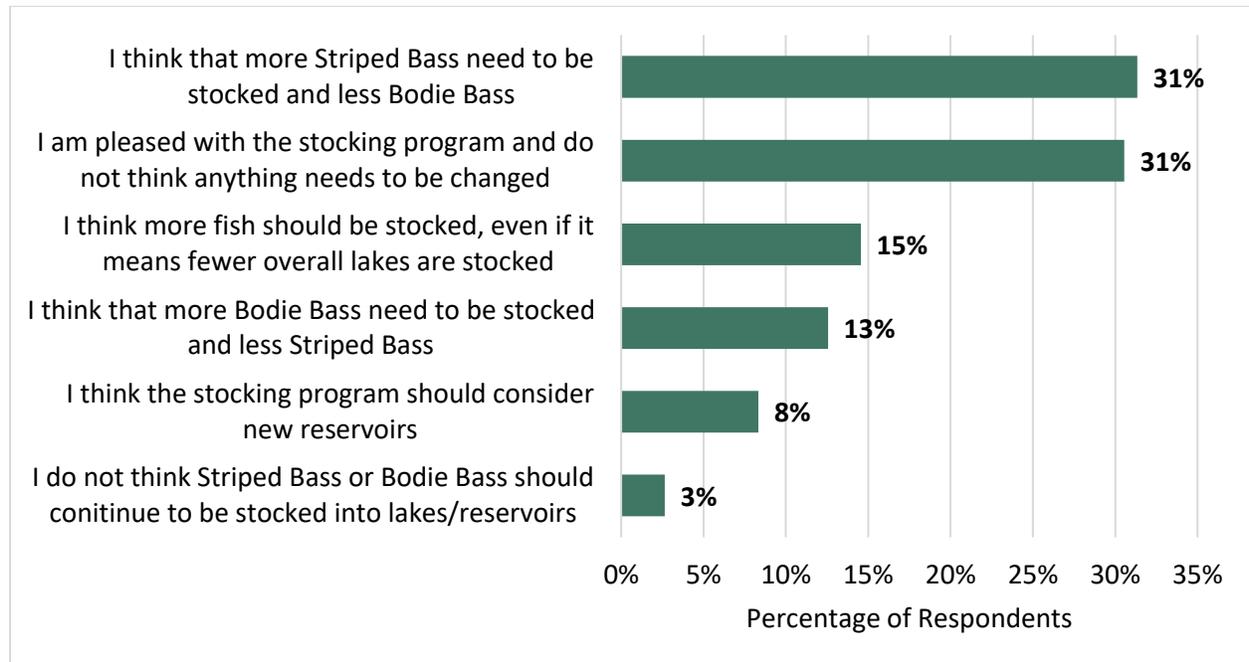


Figure 15: Respondents preference for the NCWRC Striped Bass and Bodie Bass stocking program (n = 756)

These preferences were compared against age and expertise. There were not significant differences with preferences and age, but there were with preferences and expertise ($\chi^2 = 44.75, p = 0.001$). Competent (40%) and beginner (36%) anglers were more likely to indicate they were pleased with the current program, while expert (48%) anglers were more likely to indicate they would like more Striped Bass stocked and less Bodie Bass.

Finally, respondents were asked if anything would make them more satisfied with the stocking program (**Figure 16**). The top choice that would make respondents more satisfied is updated information on stocked locations, followed by stocking new locations. Other things that would make respondents more satisfied are to increase stocking (n = 27) and change regulations (n = 5).

Each item was compared to age and expertise through a chi-square test. The choice of updated information on stocked locations did not have a statistically significant difference with age, but did with expertise ($\chi^2 = 11.23$, $p = 0.024$). Expert anglers (33%) chose this less than the other expertise levels. With the choice of, “Increased number of fish that are stocked, but at fewer locations,” age did not have any statistical significance, but expertise did ($\chi^2 = 10.64$, $p = 0.031$). Advanced (34%) and proficient (31%) anglers chose this more than the other expertise levels. The choice of regulation change did not have any statistically significant differences with age, but did with expertise ($\chi^2 = 17.20$, $p = 0.002$). Expert anglers (36%) chose this more than the other expertise levels.

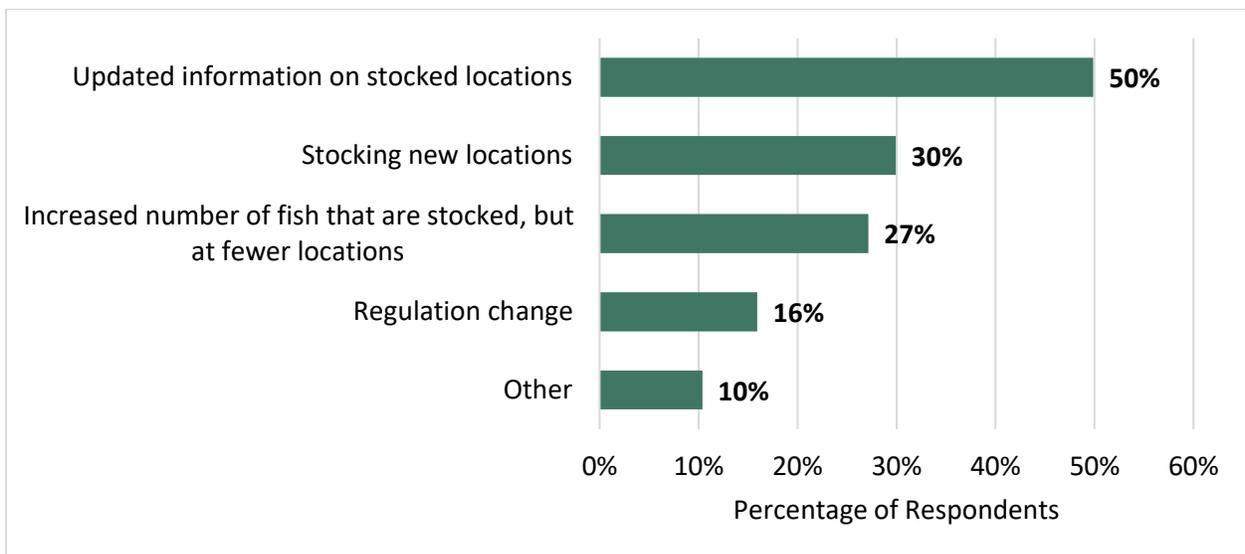


Figure 16: Ways respondents would be more satisfied with the current stocking program (n = 722)

Lake or Reservoir Striped Bass and Bodie Bass Angler Opinions on Potential Regulations

Managers are potentially considering the addition of “No culling” regulations on certain lakes and reservoirs in the summer for Striped Bass. This would mean that anglers would need to keep any legal sized Striped Bass caught, essentially eliminating catch and release practices during the summer months when catch and release mortality is high. To gauge perspectives of anglers before the rulemaking process, three questions regarding implementing this regulation were asked. The question was how much they would support or oppose a “No culling” regulation, with over half (51%) selecting they would somewhat or strongly support (Figure 17).

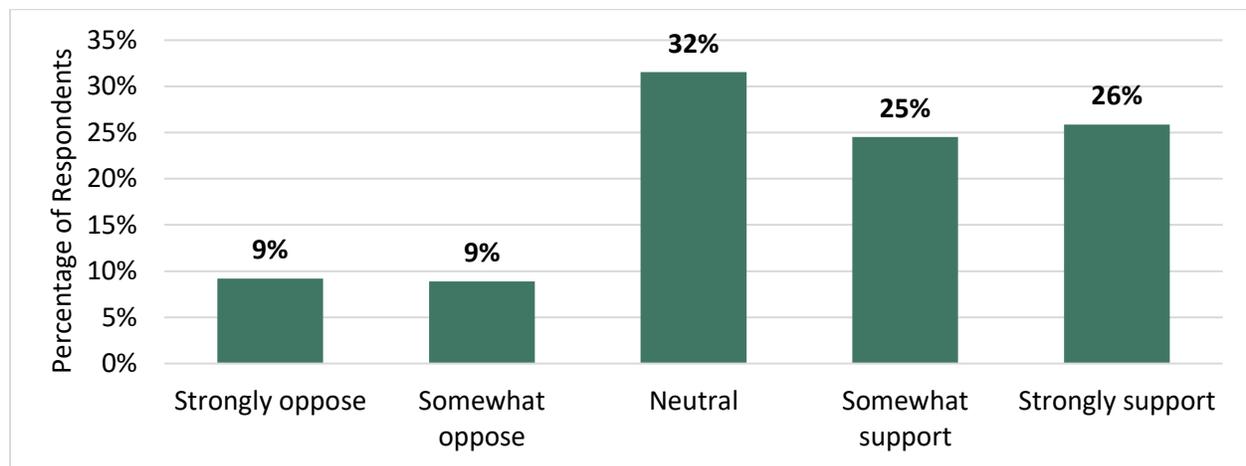


Figure 17: Respondents support or opposition of a “No culling” regulation in certain lakes or reservoirs (n = 1,318)

Comparing this support to whether respondents practice catch and release or not, interesting trends arise. There are significant differences in whether respondents practice catch and release at least some of the time and their support or opposition of this potential regulation ($\chi^2 = 35.31$, $p < 0.001$). Respondents who practiced catch and release were more likely to oppose the regulation than respondents who did not. This is unsurprising given that this potential regulation would impact them more than respondents who only harvested their Striped Bass and Bodie Bass.

Respondent’s support or opposition of a “No culling” regulation was compared to expertise and age. Both age ($\chi^2 = 44.72$, $p = 0.024$) and expertise ($\chi^2 = 62.28$, $p < 0.001$) had significant differences with support of a “No culling” regulation. With expertise, expert anglers (61%) were more likely to support a potential regulation change. Beginner anglers were not in opposition, but instead were more likely to indicate a neutral response (46%). With age, anglers between 18 – 34 (59%) and 55 – 64 (57%) were more likely to support a “No culling” regulation.

Next, respondents rated what kind of impact a “No culling” regulation would have on their Striped Bass fishing experience (**Figure 18**). Most respondents (58%) reported this regulation would have no impact.

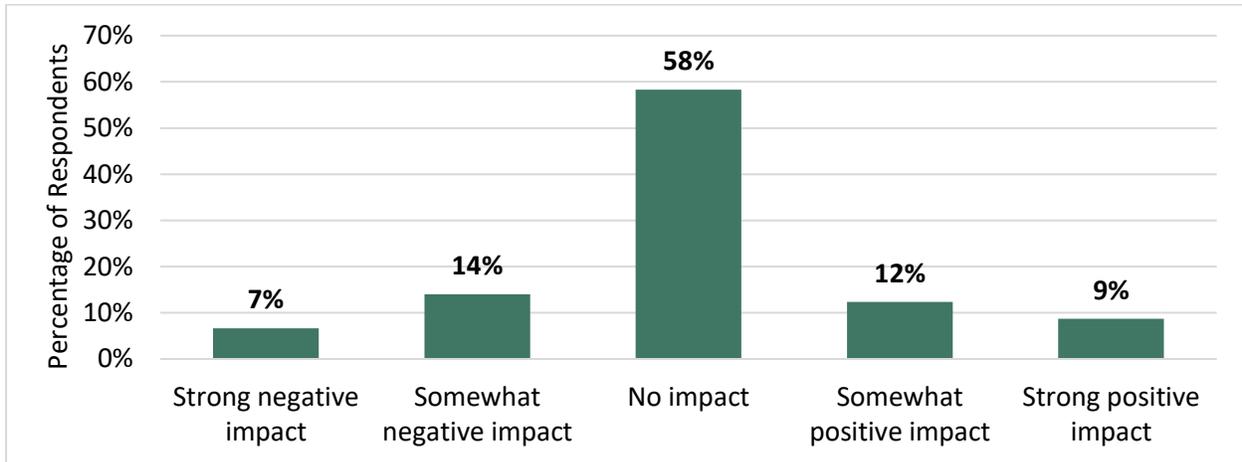


Figure 18: What kind of impact a “No culling” regulation would have on respondents fishing experience (n = 1,299)

The impact of this regulation was again compared to whether respondents practice catch and release , and there were significant differences ($\chi^2 = 17.71$, $p = 0.001$). As expected, respondents that practice catch and release were more likely to report this regulation would have a negative impact on their fishing experience than anglers who only harvest their Striped Bass and Bodie Bass.

When comparing the potential impacts to age ($\chi^2 = 42.48$, $p = 0.039$) and expertise ($\chi^2 = 78.74$, $p < 0.001$), there were statistically significant differences with both. With expertise, expert anglers (43%) were more likely to report a “No culling” regulation having a positive impact on their fishing experience, and beginner anglers (70%) were more likely to report that the regulation would have no impact on their fishing experience. With age, anglers between 18 – 34 (41%) were more likely to report this regulation having a positive impact on their fishing experience.

Finally, respondents were asked whether they would change their fishing behavior if a “No culling” regulation was instated during the summer months for Striped Bass in the lake or reservoir they fish the most often (**Figure 19**). Most respondents reported there would be no change, and they would continue to fish for Striped Bass at the same lake. The second most popular choice was that respondents would fish for other species at the same lake.

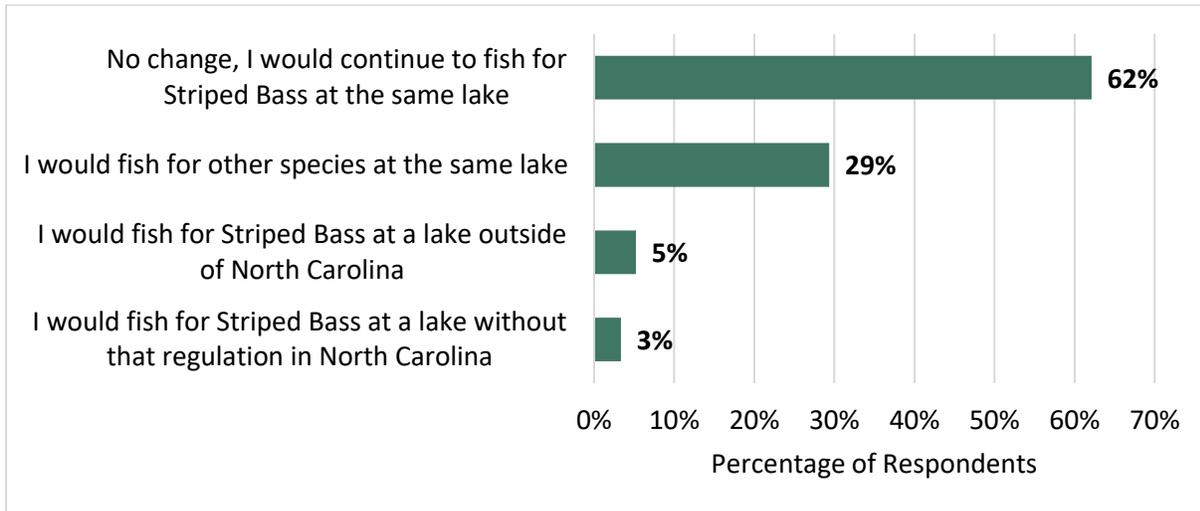


Figure 19: What changes, if any, respondents would make if a “No culling” regulation was instated at the lake or reservoir they fish the most often (n = 1,230)

Finally, the response to this question was compared to whether respondents practiced catch and release, and once again there were significant differences ($\chi^2 = 32.64$, $p < 0.001$). Respondents who practice catch and release were more likely to select they would fish for other species at the same lake or they would fish for Striped Bass at a lake without that regulation in North Carolina. This question was compared to expertise and age to test for statistically significant differences. There were not differences with age, but there was with expertise ($\chi^2 = 32.30$, $p = 0.001$). Beginner anglers (38%) were more likely to indicate they would fish for other species at the same lake than other expertise levels. Expert anglers (69%) were both most likely to indicate they would continue to fish for Striped Bass at the same lake as well as indicate they would fish for striped bass at a lake outside of North Carolina (12%).

Lake or Reservoir Striped Bass and Bodie Bass Angler Communication Preferences

Striped Bass and Bodie Bass Anglers were asked two questions about their communication preferences. The first asked respondents how they would like to receive information about Striped Bass and Bodie Bass fishing in North Carolina (**Figure 20**). The top three preferred communication methods were the NCWRC website, regulations digest or brochures, and NCWRC emails. Other methods include postal mail, email, text messages, podcasts, and guest speakers at fishing clubs (**Appendix A.14**).

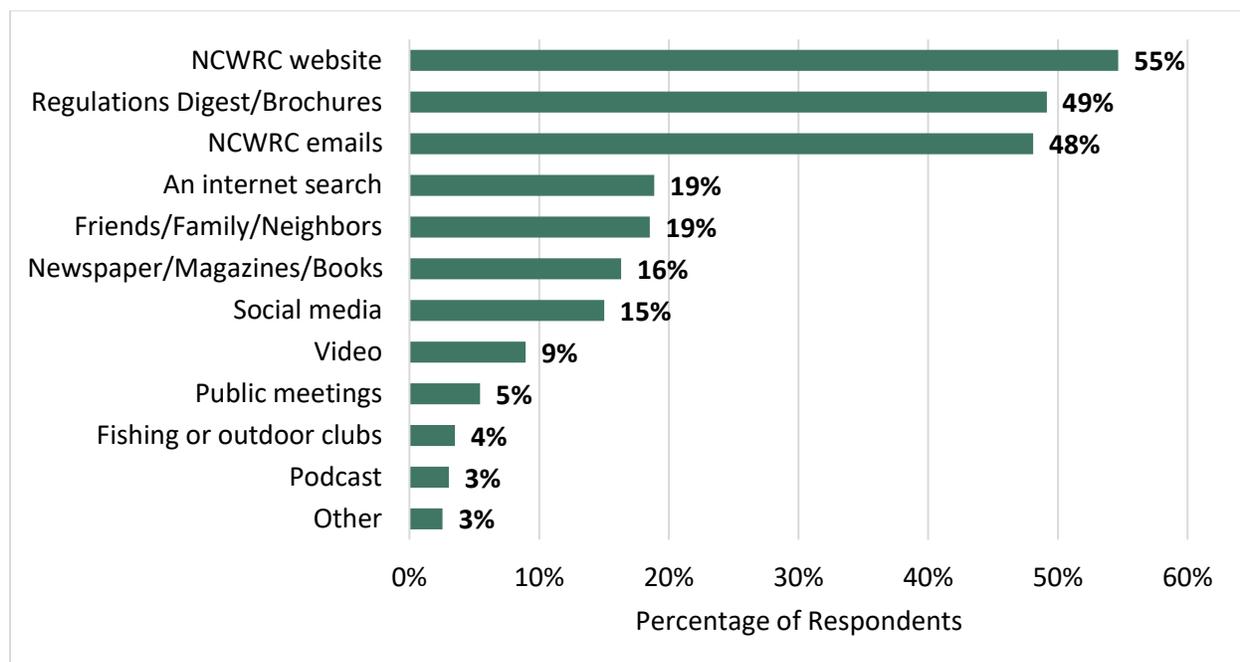


Figure 20: Communication methods respondents would like to receive Striped Bass and Bodie Bass information from (n = 1,451)

Each choice of communication method was compared to age and expertise using a chi-square test. Those who chose the NCWRC website had statistically significant differences in both age ($\chi^2 = 22.34$, $p = .002$) and expertise ($\chi^2 = 15.64$, $p = 0.004$). Anglers over 75 (41%) were the least likely to choose this option. With expertise, advanced (66%) anglers were more likely to choose this option, and expert (49%) anglers were least likely to choose this option. There was also a significant difference with those who selected NCWRC emails and expertise ($\chi^2 = 12.15$, $p = 0.016$), but not age. Advanced (56%) and proficient (54%) anglers were more likely to choose this communication method. There was also a statistically significant difference with those who selected social media and age ($\chi^2 = 44.01$, $p < 0.001$). Unsurprisingly, respondents 18 – 34 years old were the most likely to choose this option, and respondents over 75 were the least likely to choose social media as a preferred communication channel. There were statistically significant differences with those who selected public meetings and both age (χ^2

= 19.06, $p = 0.008$) and expertise ($\chi^2 = 13.71$, $p = 0.008$). Anglers between 45-54 (7%) and 35-44 (6%) were more likely to choose a public meeting than other anglers. Expert (17%) anglers were more likely to choose a public meeting than the other expertise categories. Lastly, there was a statistically significant difference with those who selected fishing or outdoor clubs and expertise ($\chi^2 = 21.27$, $p < 0.001$), but not age. Advanced anglers (9%) were more likely to indicate they would like to get information from fishing or outdoor clubs than the other expertise levels. While not statistically significant, anglers over 75 primarily preferred to receive communications through the regulations digest and NCWRC emails. Respondents were also asked to share what kind of information they would like to receive from the NCWRC (**Table 5**). The only three topics to pass the 10% thematic threshold were stocking reports, regulations, and population size estimates.

Table 5: Topics on which respondents would like to receive information about Striped Bass and Bodie Bass fishing from the NCWRC (n = 490)

Topic	Description	n
Stocking reports	Respondents would like to receive information on stocking reports, when fish are stocked where, and how many fish were stocked.	268
Regulations	Respondents would like to receive information on regulations, changes, and seasons.	164
Population size estimates	Respondents would like to know the population estimates of lakes and reservoirs with Striped Bass and Bodie Bass in them.	59

Non-Striped Bass and Bodie Bass Angler Perspectives

In the screener question of the survey, respondents who selected that they did not fish for Striped Bass or Bodie Bass in lakes or reservoirs, were asked a set of questions about why they did not fish for these species and if anything would encourage them to do so. The first question dealt with reasons behind not fishing for Striped Bass and Bodie Bass in lakes or reservoirs (**Figure 21**). The main reason for not fishing for Striped Bass and Bodie Bass in lakes or reservoirs is that they fish for other species. This was followed by not owning a boat and not targeting specific species. Other reasons include fishing saltwater species exclusively, not fishing at all, having issues with the regulations, and having no lakes or reservoirs near them (**Appendix A.15**). Of the respondents who indicated there were no Striped Bass and Bodie Bass near them, most were from Wake, Buncombe, Guilford, Cumberland, Brunswick and New Hanover Counties, as well as nonresident anglers from South Carolina.

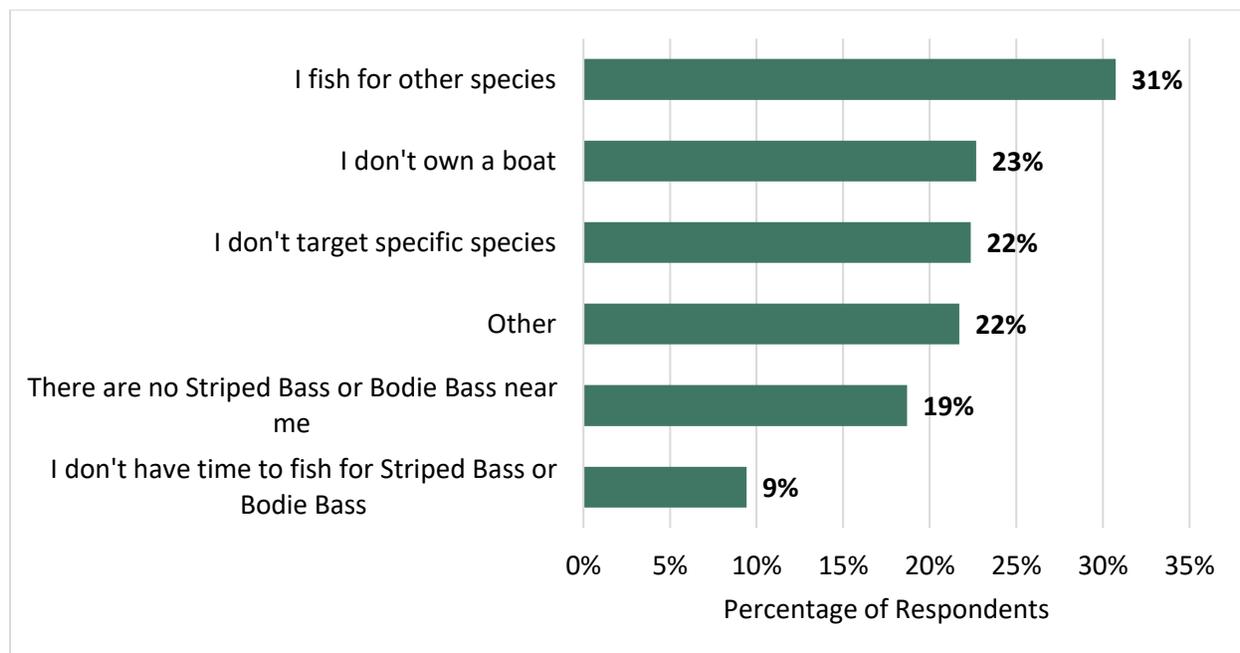


Figure 21: Reasons respondents do not fish for Striped Bass and Bodie Bass in lakes or reservoirs (n = 5,039)

Anglers who did not fish for Striped Bass or Bodie Bass in lakes or reservoirs were also asked if there was anything that would encourage them to do so (**Figure 22**). Nearly half of respondents reported there was nothing that would encourage them to fish for Striped Bass and Bodie Bass in lakes or reservoirs. However, some respondents reported that having stocking locations near them, updated information on stocked locations, and stocking new locations would encourage them to fish for Striped Bass and Bodie Bass in lakes or reservoirs. Other things that would encourage them would be if they fished lakes or reservoirs, if they had a boat, and if they had lakes or reservoirs near them (**Appendix A.16**).

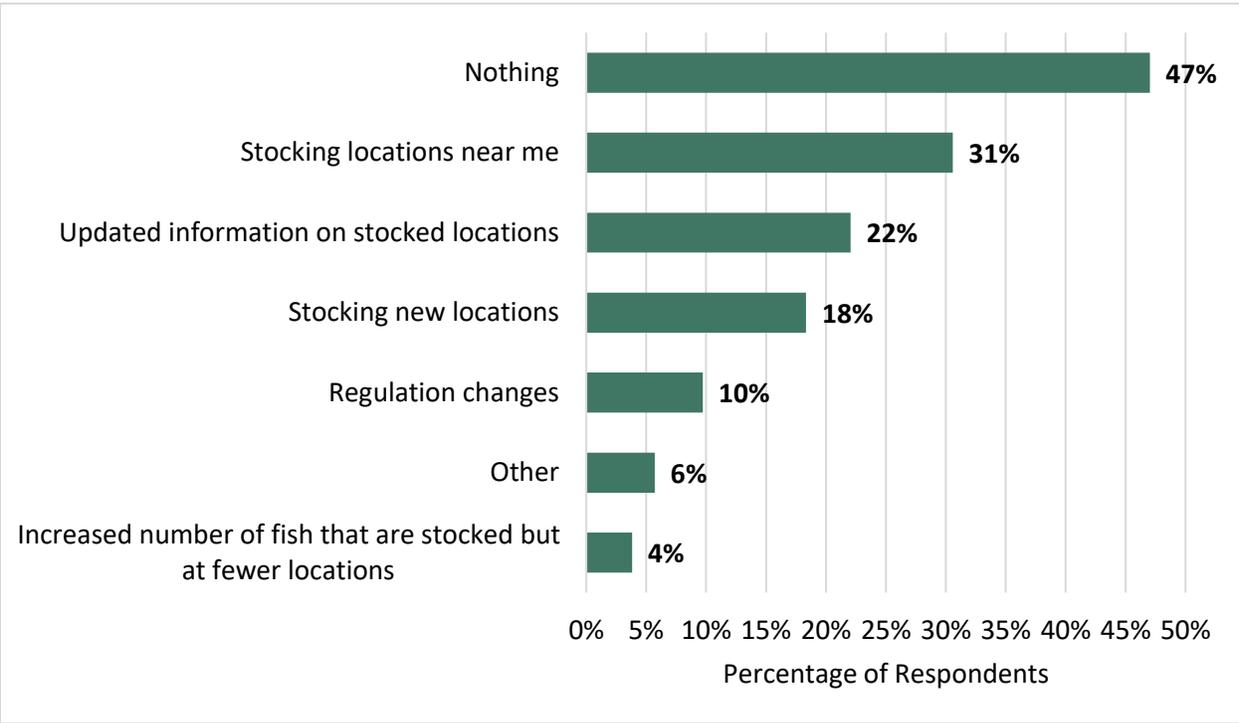


Figure 22: Actions that would encourage respondents to fish for Striped Bass and Bodie Bass in lakes or reservoirs (n = 4,980)

Finally, non-Striped Bass and Bodie Bass anglers were asked if there were any lakes or reservoirs that they wished were stocked with Striped Bass and Bodie Bass (**Table 6**). The top lakes listed were Jordan Lake, Falls Lake, Lake James, Shearon Harris Reservoir, Lake Norman, and High Rock Lake. Of these top lakes, Jordan Lake used to be stocked. In addition, High Rock Lake is currently stocked with Striped Bass, and Lake Norman is stocked with Bodie Bass, but previously Striped Bass.

Table 6: Lakes or Reservoirs that respondents would like to see stocked with Striped Bass and Bodie Bass (n = 946)

Lake	n
Jordan Lake	113
Falls Lake	85
Lake James	76
Shearon Harris Reservoir	67
Lake Norman	59
High Rock Lake	53

Discussion

Fishing Participation

Results from this project on statewide species targeted are relatively similar to the NC Outdoor Recreation Experiences Survey (NCORES) (Watkins & Jewell, 2023), with a few notable exceptions. As the NCORES survey was conducted with a panel of members of the general public, and not necessarily license holders, it is to be expected the percentages are slightly different. In this survey, more respondents indicated fishing for Striped Bass or Bodie Bass in both lakes or reservoirs and coastal rivers than in NCORES.

Lake or Reservoir Striped Bass and Bodie Bass Angler Fishing Trip Economic Impact

Striped Bass and Bodie Bass fishing trips to lakes or reservoirs culminated in a total economic impact of \$491 million. This result can be compared to trout fishing trips, which culminated in a trip economic impact of \$886 million (NCWRC, 2023). The differences in these impacts may be explained by two things. First, the estimated number of trout anglers in North Carolina was larger, at 369,968, while the estimated number of Striped Bass and Bodie Bass anglers was 258,219. Second, while trout anglers took, on average, less fishing trips (9), they spent \$240 per person on each trip. Striped Bass and Bodie Bass anglers took more trips (13) and spent less per person (\$127).

Lake or Reservoir Striped Bass and Bodie Bass Angler Experience

While most Striped Bass and Bodie Bass anglers did report fishing specifically for Striped Bass and Bodie Bass for over 30 years, more respondents indicated they have been fishing in general for over 30 years. This result, paired with respondents' lower self-rating of expertise, may explain that while respondents have been fishing for a long time, Striped Bass and Bodie Bass fishing is a relatively new venture.

Lake or Reservoir Striped Bass and Bodie Bass Angler Fishing Habits

Striped Bass and Bodie Bass anglers indicated that they fished the most in Lake Norman, W. Kerr Scott Reservoir, Lake Gaston and Badin Lake. Lake Norman is currently stocked with Bodie Bass but was historically stocked with Striped Bass. W. Kerr Scott Reservoir is stocked with both Striped Bass and Bodie Bass, and both Lake Gaston and Badin Lake are stocked with Striped Bass. Striped Bass and Bodie Bass anglers also reported primarily fishing from a motorized boat.

Lake or Reservoir Striped Bass and Bodie Bass Angler Satisfaction of Fishing Experience

Striped Bass and Bodie Bass anglers indicated that they were neither satisfied nor dissatisfied with their fishing experience for Striped Bass and Bodie Bass. To determine why they were not satisfied with their experience, respondents rated items related to their fishing experience. The item with the most negative impact on Striped Bass and Bodie Bass fishing experience is that there are not enough trophy fish. This is further confirmed by Striped Bass and Bodie Bass anglers being dissatisfied with catching a trophy fish. However, catching a trophy fish was also rated as not as important. Within a Satisfaction-Importance matrix, catching a trophy fish was the only item in the low priority category, indicating low importance and low satisfaction. In that same Satisfaction-Importance matrix, there were no items in the “Concentrate here” category that indicates high importance and low satisfaction.

Lake or Reservoir Striped Bass and Bodie Bass Angler Tournament and Club Participation

There were a few respondents that indicated they participated either in Striped Bass and Bodie Bass tournaments (3%) or fishing clubs (1%). This is lower than the 2013 North Carolina Resident Freshwater Angler Survey (NC Wildlife Resources Commission), in which 8% of Striped Bass anglers reported participating in fishing clubs, and 5% of Striped Bass anglers reported participating in a fishing tournament. Future research should consider how to reach these tournament and fishing club anglers.

Lake or Reservoir Striped Bass and Bodie Bass Angler Opinion on Stocking Program

The questions regarding the lake or reservoir Striped Bass and Bodie Bass stocking program provided results that may improve angler awareness and satisfaction. Over half of anglers (57%) reported they knew the Striped Bass and Bodie Bass were stocked. This indicates a general lack of awareness of where these fish in the lakes or reservoirs came from. Further, respondents primarily found out about stocking through word of mouth, the NCWRC website, or social media. Signage was only selected by 2% of respondents, indicating more signage could be installed. When asked about ways respondents would be more satisfied with the stocking program, updated information on stocked locations was selected most often. In reviewing the NCWRC website, there is limited information available on lake and reservoir stockings for Striped Bass and Bodie Bass. Consistently updating this information may improve this method of communication to anglers.

Striped Bass and Bodie Bass anglers who knew lakes or reservoirs were stocked shared that they believe more Striped Bass needed to be stocked, and less Bodie Bass. However, closely behind that option was respondents indicating they are pleased with the program and do not think anything needs to be changed. Thus, if the stocking program is to be adjusted, increasing the number of Striped Bass, and decreasing the number of Bodie Bass would likely be satisfactory.

Lake or Reservoir Striped Bass and Bodie Bass Angler Opinion on Potential Regulations

Considering the potential “No culling” regulation posed to anglers, and that most anglers practice catch and release at least some of the time, respondents selected that they would still primarily support the regulation, and it would not impact their fishing experience. Further, if the rule were to take effect, their fishing trip behaviors would not change. For those who would change something, it would be to fish for different species at the same lake.

Conclusion

Lake or reservoir Striped Bass and Bodie Bass anglers make up a significant number of freshwater anglers. Overall, they shared positive sentiments, but indicated room for improvement through potential stocking adjustments and improved communication. The potential of a “No culling” regulation would be supported by these anglers, would not impact their fishing experience, and likely would not change their behavior. Results from this project can inform and improve future communication efforts, management plans, and future research studies.

References

- Almanza, B. A., Jaffe, W., & Lin, L. (1994). Use of the service attribute matrix to measure consumer satisfaction. *Hospitality Research Journal*, 17(2), 63-75.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014) *Internet, phone, mail, and mixed-mode surveys: The tailored design method*. John Wiley & Sons.
- Jewell, K., Watkins, C., Rash, J., & Besler, D. (2023). Evaluation of North Carolina trout anglers' opinions, participation, and socioeconomic impact. A Report for the North Carolina Wildlife Resources Commission.
- Watkins, C. & Jewell, K. (2023). 2022 North Carolina outdoor recreational experiences: Economic impacts of hunting, fishing, and wildlife viewing. A Report for the North Carolina Wildlife Resources Commission.
- Linehan, K. (2013). North Carolina resident freshwater angler survey. A Report for the North Carolina Wildlife Resources Commission.
- Wade, D. J., & Eagles, P. F. (2003). The use of importance–performance analysis and market segmentation for tourism management in parks and protected areas: An application to Tanzania's national parks. *Journal of ecotourism*, 2(3), 196-212.

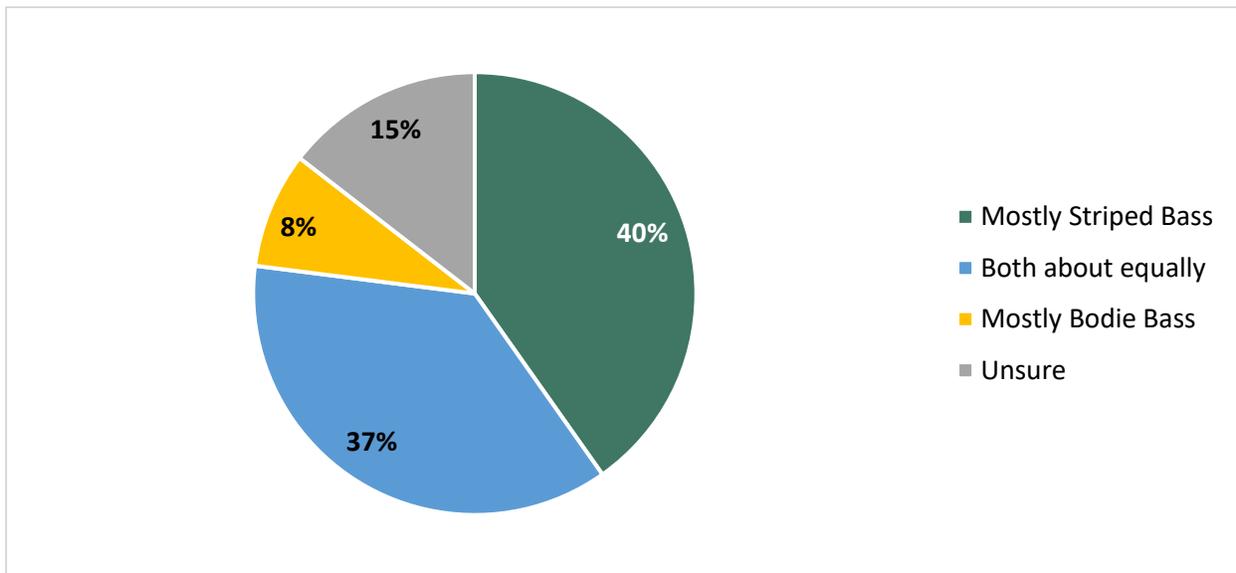
Appendix

Appendix A: Additional Figures & Tables

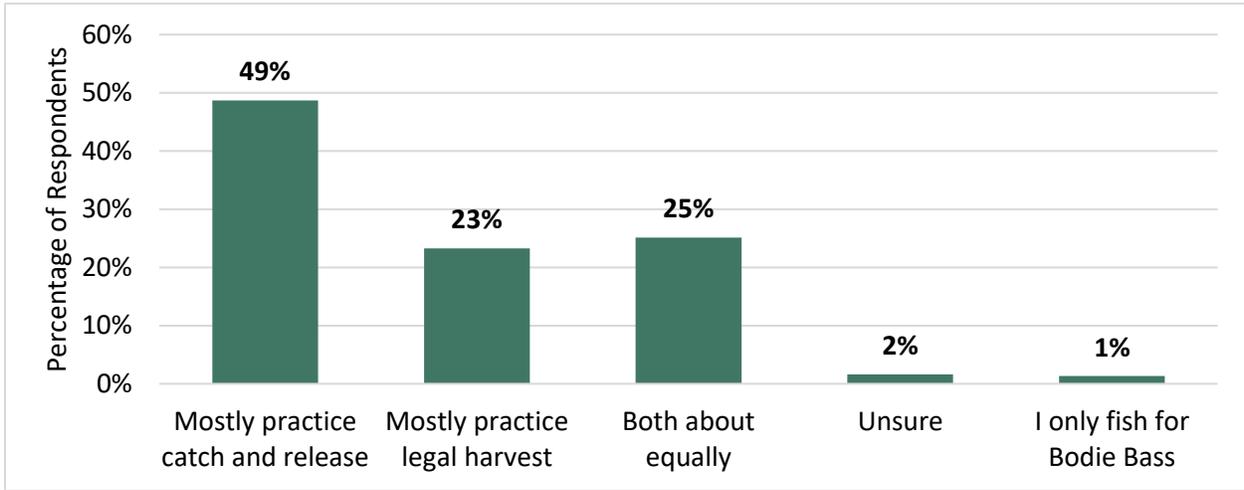
Appendix A.1: Other species respondents reported fishing for (n = 390)

Theme	Description	n
Saltwater species	Respondents reported fishing for a variety of saltwater species	165
Does not fish	Respondents reported that they did not fish in the last 12 months	58
Bass	Respondents reported fishing for bass. They did not specify which type.	50

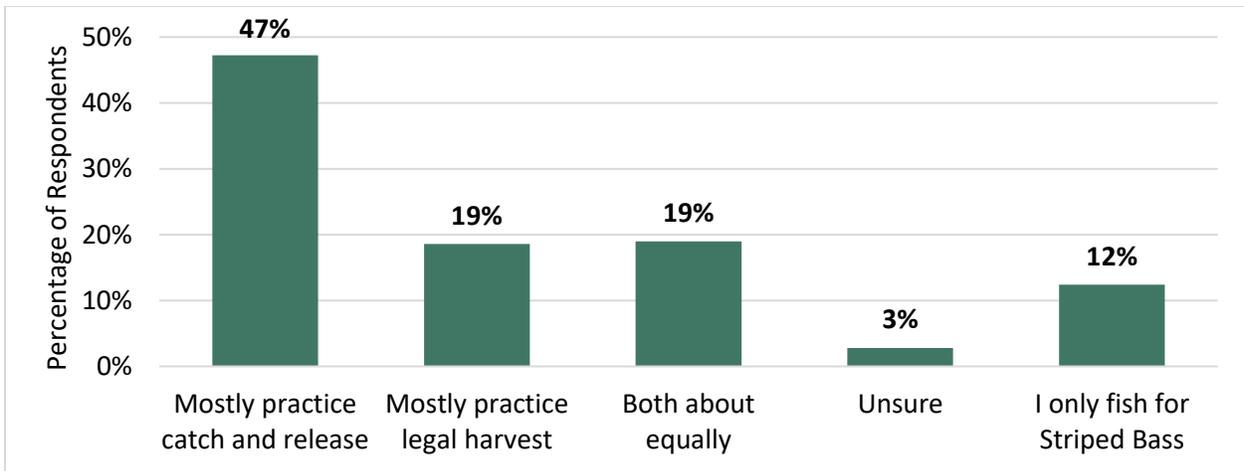
Appendix A.2: Whether Striped Bass and Bodie Bass anglers typically fished for one species over the other (n = 1,427)



Appendix A.3: Whether respondents mostly keep or catch and release Striped Bass (n = 1,437)



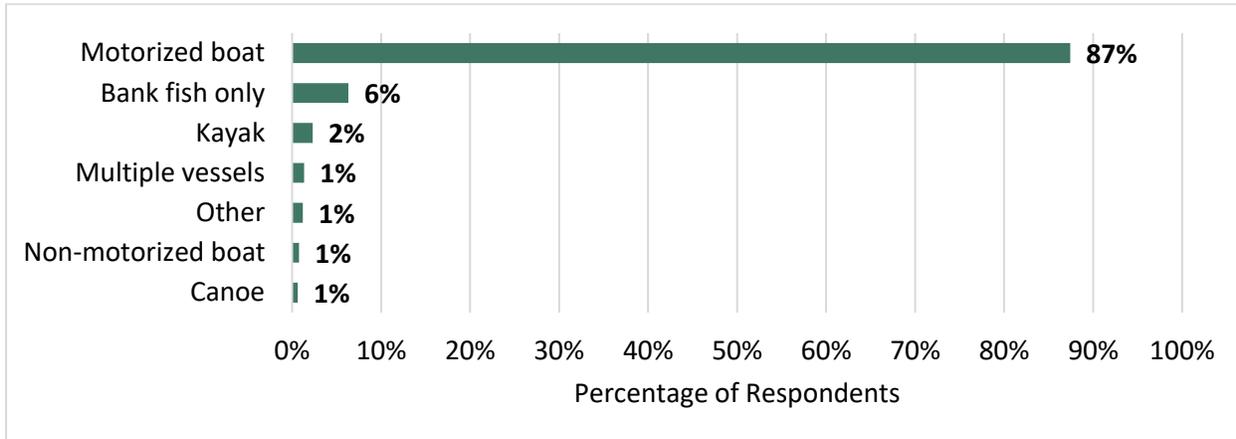
Appendix A.4: Whether respondents mostly keep or catch and release Bodie Bass (n = 1,421)



Appendix A.5: Other lakes or reservoirs respondents report fishing for Striped Bass and Bodie Bass in (n = 229)

Lake	n
John H. Kerr Reservoir	68
Rivers	41
Jordan Lake	36

Appendix A.6: What kind of vessel respondents use while fishing for Striped Bass and Bodie Bass in lakes or reservoirs (n = 1,424). “Other” vessels include docks, charter boats, and dams.



Appendix A.7: Results of chi-square test on statements associated with Figure 10. Significant differences with statements and expertise or age are listed in order of how they appear on the figure.

“There are not enough trophy Striped Bass and Bodie Bass” & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	86 (52%)	153 (40%)	108 (30%)	59 (28%)	10 (19%)
Minor impact	26 (16%)	88 (23%)	83 (23%)	38 (18%)	9 (17%)
Moderate impact	32 (19%)	87 (23%)	101 (28%)	53 (25%)	13 (24%)
Major impact	21 (13%)	52 (14%)	73 (20%)	59 (28%)	22 (41%)
$\chi^2 = 66.35, p < 0.001$					

“There are not enough trophy Striped Bass and Bodie Bass.” & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
No impact	5 (83%)	11 (34%)	39 (53%)	71 (32%)	107 (33%)	126 (36%)	31 (36%)	0 (0%)
Minor impact	0 (0%)	9 (28%)	7 (9%)	41 (18%)	66 (20%)	86 (24%)	15 (18%)	1 (33%)
Moderate impact	1 (17%)	6 (19%)	19 (26%)	56 (25%)	86 (26%)	85 (24%)	19 (22%)	1 (33%)
Major impact	0 (0%)	6 (19%)	9 (12%)	54 (24%)	70 (21%)	56 (16%)	20 (24%)	1 (33%)
$\chi^2 = 34.05, p = 0.036$								

"The lake was not stocked with Striped Bass." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	101 (58%)	164 (42%)	130 (35%)	75 (36%)	15 (31%)
Minor impact	29 (17%)	97 (25%)	79 (21%)	34 (17%)	4 (8%)
Moderate impact	17 (10%)	77 (20%)	108 (29%)	42 (14%)	13 (27%)
Major impact	29 (16%)	49 (13%)	58 (15%)	55 (27%)	17 (35%)

$\chi^2 = 75.62, p < 0.001$

"The Striped Bass and Bodie Bass I catch are too small to keep." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	97 (58%)	179 (47%)	121 (34%)	80 (39%)	18 (34%)
Minor impact	33 (20%)	116 (31%)	116 (32%)	55 (27%)	11 (21%)
Moderate impact	24 (14%)	57 (15%)	95 (26%)	47 (23%)	12 (23%)
Major impact	14 (8%)	28 (7%)	28 (8%)	21 (5%)	12 (23%)

$\chi^2 = 57.55, p < 0.001$

"The lake was not stocked with Bodie Bass." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	103 (60%)	176 (47%)	152 (42%)	85 (43%)	23 (45%)
Minor impact	26 (15%)	81 (22%)	78 (22%)	37 (19%)	4 (8%)
Moderate impact	19 (11%)	72 (19%)	83 (23%)	38 (19%)	8 (16%)
Major impact	23 (13%)	43 (12%)	47 (13%)	39 (20%)	16 (31%)

$\chi^2 = 41.40, p < 0.001$

"I don't know how to find what lakes are stocked with Striped Bass and Bodie Bass" & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
No impact	4 (67%)	18 (53%)	41 (56%)	123 (56%)	174 (53%)	172 (47%)	41 (47%)	1 (25%)
Minor impact	0 (0%)	7 (21%)	11 (15%)	47 (21%)	47 (14%)	52 (14%)	14 (16%)	0 (0%)
Moderate impact	1 (33%)	5 (15%)	12 (16%)	43 (19%)	58 (18%)	81 (22%)	18 (20%)	3 (75%)
Major impact	1 (33%)	4 (12%)	9 (12%)	8 (4%)	49 (15%)	58 (16%)	15 (17%)	0 (0%)

$\chi^2 = 40.08, p = 0.007$

"The water quality in lakes or reservoirs near me is poor." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	106 (62%)	241 (64%)	204 (57%)	122 (62%)	23 (44%)
Minor impact	37 (22%)	76 (20%)	93 (26%)	39 (20%)	12 (23%)
Moderate impact	15 (9%)	49 (13%)	46 (13%)	25 (13%)	9 (17%)
Major impact	12 (7%)	11 (3%)	17 (5%)	12 (6%)	8 (15%)
$\chi^2 = 26.13, p = 0.010$					

"The water quality in lakes or reservoirs near me is poor." & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
No impact	4 (67%)	19 (59%)	52 (71%)	133 (60%)	183 (57%)	218 (62%)	48 (58%)	0 (0%)
Minor impact	0 (0%)	10 (31%)	13 (18%)	56 (25%)	83 (26%)	64 (18%)	18 (22%)	0 (0%)
Moderate impact	2 (33%)	3 (9%)	6 (8%)	24 (11%)	36 (11%)	47 (13%)	12 (14%)	2 (50%)
Major impact	0 (0%)	0 (0%)	2 (3%)	8 (4%)	20 (6%)	22 (6%)	5 (6%)	2 (50%)
$\chi^2 = 43.57, p = 0.003$								

"Regulations are too confusing." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	98 (58%)	262 (69%)	224 (63%)	150 (75%)	32 (64%)
Minor impact	25 (15%)	63 (17%)	69 (19%)	28 (14%)	9 (18%)
Moderate impact	27 (16%)	39 (10%)	39 (11%)	14 (7%)	7 (14%)
Major impact	18 (11%)	16 (4%)	24 (7%)	9 (4%)	2 (4%)
$\chi^2 = 24.87, p = 0.015$					

"Regulations are too confusing." & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
No impact	3 (50%)	22 (67%)	49 (69%)	150 (68%)	232 (71%)	223 (64%)	45 (54%)	1 (33%)
Minor impact	2 (33%)	9 (27%)	10 (14%)	39 (18%)	54 (17%)	54 (16%)	12 (14%)	1 (33%)
Moderate impact	1 (17%)	1 (3%)	8 (11%)	25 (11%)	21 (6%)	44 (13%)	17 (20%)	0 (0%)
Major impact	0 (0%)	1 (3%)	4 (6%)	5 (2%)	18 (6%)	27 (8%)	10 (12%)	1 (33%)
$\chi^2 = 41.75, p = 0.005$								

Appendix A.8: Results of chi-square test on statements associated with Figure 11. Significant differences with statements and expertise or age are listed in order of how they appear on the figure.

"Lakes or reservoirs are too crowded." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	80 (47%)	122 (32%)	110 (30%)	67 (33%)	14 (28%)
Minor impact	42 (25%)	123 (32%)	108 (30%)	64 (32%)	13 (26%)
Moderate impact	32 (19%)	96 (25%)	98 (27%)	48 (24%)	15 (30%)
Major impact	15 (9%)	39 (10%)	49 (13%)	23 (11%)	8 (16%)
$\chi^2 = 21.37, p = 0.045$					

"Other anglers have poor behavior." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	103 (61%)	183 (49%)	164 (45%)	81 (40%)	15 (30%)
Minor impact	40 (24%)	126 (33%)	110 (30%)	75 (37%)	20 (40%)
Moderate impact	17 (10%)	49 (13%)	61 (17%)	32 (16%)	13 (26%)
Major impact	10 (6%)	19 (5%)	26 (7%)	14 (7%)	2 (4%)
$\chi^2 = 30.06, p = 0.003$					

"I don't have enough time to fish for Striped Bass and Bodie Bass." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	78 (45%)	166 (43%)	179 (51%)	123 (63%)	28 (60%)
Minor impact	32 (18%)	101 (26%)	91 (26%)	39 (20%)	12 (26%)
Moderate impact	43 (25%)	86 (22%)	58 (16%)	23 (12%)	3 (6%)
Major impact	22 (13%)	30 (8%)	26 (7%)	11 (6%)	4 (9%)
$\chi^2 = 39.24, p < 0.001$					

"I worry about environmental contamination and consuming the Striped Bass and Bodie Bass I harvest." & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
No impact	4 (67%)	24 (75%)	55 (76%)	133 (61%)	187 (57%)	201 (58%)	50 (58%)	1 (25%)
Minor impact	1 (17%)	6 (19%)	4 (6%)	47 (22%)	62 (19%)	76 (22%)	14 (16%)	0 (0%)
Moderate impact	1 (17%)	1 (3%)	11 (15%)	26 (12%)	49 (15%)	36 (10%)	14 (16%)	2 (50%)
Major impact	0 (0%)	1 (3%)	2 (3%)	12 (6%)	31 (9%)	35 (10%)	8 (9%)	1 (25%)
$\chi^2 = 36.66, p = 0.018$								

"It is too expensive to fish for Striped Bass and Bodie Bass." & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
No impact	4 (67%)	25 (78%)	50 (69%)	146 (68%)	216 (67%)	240 (70%)	52 (65%)	0 (0%)
Minor impact	0 (0%)	7 (22%)	18 (25%)	58 (27%)	70 (22%)	73 (21%)	19 (24%)	1 (33%)
Moderate impact	2 (33%)	0 (0%)	2 (3%)	10 (5%)	29 (9%)	27 (8%)	7 (9%)	1 (33%)
Major impact	0 (0%)	0 (0%)	2 (3%)	2 (1%)	7 (2%)	5 (1%)	2 (3%)	1 (33%)
$\chi^2 = 42.83, p = 0.003$								

"I don't have anywhere to fish for Striped Bass or Bodie Bass near me." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	113 (65%)	268 (70%)	249 (70%)	150 (76%)	34 (69%)
Minor impact	28 (16%)	66 (17%)	61 (17%)	26 (13%)	6 (12%)
Moderate impact	14 (8%)	35 (9%)	32 (9%)	12 (6%)	2 (4%)
Major impact	18 (10%)	13 (3%)	13 (4%)	9 (5%)	7 (14%)
$\chi^2 = 27.39, p = 0.007$					

"I have no one to fish with." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	117 (70%)	280 (75%)	283 (80%)	180 (90%)	43 (88%)
Minor impact	29 (17%)	70 (19%)	51 (14%)	7 (4%)	6 (14%)
Moderate impact	13 (8%)	17 (5%)	17 (5%)	5 (3%)	0 (0%)
Major impact	7 (4%)	5 (1%)	4 (1%)	7 (4%)	0 (0%)
$\chi^2 = 46.22, p < 0.001$					

"I don't know how to fish for Striped Bass and Bodie Bass." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	87 (52%)	286 (76%)	316 (89%)	185 (93%)	48 (98%)
Minor impact	38 (23%)	67 (18%)	29 (8%)	9 (5%)	1 (2%)
Moderate impact	25 (15%)	18 (5%)	8 (2%)	3 (2%)	0 (0%)
Major impact	18 (11%)	3 (1%)	1 (0%)	1 (1%)	0 (0%)
$\chi^2 = 191.31, p < 0.001$					

"I don't know how to fish for Striped Bass and Bodie Bass." & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
No impact	4 (57%)	25 (78%)	56 (78%)	179 (82%)	274 (84%)	275 (79%)	56 (67%)	2 (67%)
Minor impact	0 (0%)	7 (22%)	7 (10%)	29 (13%)	32 (10%)	40 (12%)	18 (22%)	0 (0%)
Moderate impact	3 (43%)	0 (0%)	7 (10%)	7 (3%)	15 (5%)	21 (6%)	4 (5%)	0 (0%)
Major impact	0 (0%)	0 (0%)	2 (3%)	2 (1%)	4 (1%)	10 (3%)	5 (6%)	1 (33%)
$\chi^2 = 64.22, p < 0.001$								

"I don't have a boat to fish from." & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
No impact	136 (80%)	319 (85%)	303 (86%)	186 (94%)	47 (98%)
Minor impact	12 (7%)	20 (5%)	25 (7%)	4 (2%)	0 (0%)
Moderate impact	8 (5%)	13 (3%)	10 (3%)	4 (2%)	0 (0%)
Major impact	15 (9%)	22 (6%)	16 (5%)	3 (2%)	1 (2%)
$\chi^2 = 27.81, p = 0.006$					

"I don't have a boat to fish from." & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
No impact	4 (67%)	24 (73%)	61 (85%)	199 (91%)	283 (87%)	282 (85%)	67 (82%)	3 (100%)
Minor impact	0 (0%)	3 (9%)	6 (8%)	8 (4%)	14 (4%)	24 (7%)	3 (4%)	0 (0%)
Moderate impact	1 (17%)	3 (9%)	3 (4%)	8 (4%)	8 (2%)	9 (3%)	1 (1%)	0 (0%)
Major impact	1 (17%)	3 (9%)	2 (3%)	3 (1%)	19 (6%)	19 (6%)	11 (13%)	0 (0%)
$\chi^2 = 38.09, p = 0.013$								

Appendix A.9: Results of chi-square test on statements associated with Figure 12. Significant differences with statements and expertise or age are listed in order of most important to the least.

Importance of “Being outdoors” & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	15 (8%)	7 (2%)	7 (2%)	5 (2%)	0 (0%)
Slightly important	9 (5%)	8 (2%)	6 (2%)	3 (1%)	0 (0%)
Moderately important	23 (12%)	60 (14%)	39 (10%)	15 (7%)	5 (9%)
Very important	66 (34%)	184 (43%)	159 (40%)	87 (39%)	12 (21%)
Extremely important	83 (42%)	172 (40%)	182 (46%)	115 (51%)	40 (70%)
$\chi^2 = 60.57, p < 0.001$					

Satisfaction of “Being outdoors” & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Very dissatisfied	3 (2%)	3 (1%)	3 (1%)	2 (1%)	2 (4%)
Somewhat dissatisfied	5 (3%)	6 (1%)	3 (1%)	2 (1%)	0 (0%)
Neutral	41 (22%)	49 (12%)	44 (12%)	30 (14%)	7 (13%)
Somewhat satisfied	39 (21%)	135 (33%)	119 (31%)	66 (31%)	15 (27%)
Very satisfied	100 (53%)	220 (53%)	212 (56%)	116 (54%)	31 (56%)
$\chi^2 = 27.78, p = 0.034$					

Importance of “Being close to the water” & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	15 (8%)	15 (4%)	11 (3%)	6 (3%)	0 (0%)
Slightly important	16 (8%)	16 (4%)	19 (5%)	5 (2%)	2 (4%)
Moderately important	38 (20%)	105 (25%)	56 (14%)	32 (14%)	5 (9%)
Very important	63 (33%)	157 (37%)	153 (39%)	90 (40%)	8 (15%)
Extremely important	61 (32%)	132 (31%)	149 (38%)	90 (40%)	39 (72%)
$\chi^2 = 72.93, p < 0.001$					

Satisfaction of "Being close to the water" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Very dissatisfied	4 (2%)	3 (1%)	3 (1%)	1 (<1%)	2 (4%)
Somewhat dissatisfied	4 (2%)	8 (2%)	4 (1%)	4 (2%)	2 (4%)
Neutral	48 (26%)	81 (19%)	52 (14%)	40 (19%)	5 (9%)
Somewhat satisfied	47 (25%)	130 (31%)	127 (34%)	61 (28%)	14 (26%)
Very satisfied	83 (45%)	194 (47%)	191 (51%)	110 (51%)	30 (57%)
$\chi^2 = 28.28, p = 0.029$					

Importance of "Relaxation" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	15 (8%)	11 (3%)	5 (1%)	7 (3%)	3 (5%)
Slightly important	17 (9%)	17 (4%)	19 (5%)	12 (5%)	2 (4%)
Moderately important	33 (17%)	87 (20%)	81 (21%)	36 (16%)	8 (15%)
Very important	57 (29%)	165 (39%)	148 (38%)	97 (43%)	13 (24%)
Extremely important	74 (38%)	145 (34%)	141 (36%)	74 (33%)	29 (53%)
$\chi^2 = 41.69, p < 0.001$					

Importance of "The experience of the catch" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	24 (12%)	20 (5%)	13 (3%)	9 (4%)	1 (2%)
Slightly important	16 (8%)	30 (7%)	14 (4%)	8 (4%)	3 (6%)
Moderately important	41 (21%)	101 (24%)	89 (23%)	42 (19%)	7 (13%)
Very important	70 (35%)	189 (44%)	176 (45%)	93 (42%)	20 (38%)
Extremely important	47 (24%)	88 (21%)	103 (26%)	72 (32%)	22 (42%)
$\chi^2 = 52.13, p < 0.001$					

Satisfaction of "The experience of the catch" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Very dissatisfied	13 (7%)	11 (3%)	18 (5%)	11 (5%)	8 (15%)
Somewhat dissatisfied	22 (12%)	53 (13%)	53 (14%)	37 (16%)	8 (15%)
Neutral	75 (39%)	139 (33%)	96 (25%)	45 (20%)	9 (17%)
Somewhat satisfied	44 (23%)	143 (34%)	143 (37%)	82 (36%)	19 (35%)
Very satisfied	37 (19%)	75 (18%)	79 (20%)	51 (23%)	10 (19%)
$\chi^2 = 50.70, p < 0.001$					

Importance of "The challenge or sport" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	33 (17%)	18 (4%)	21 (5%)	9 (4%)	1 (2%)
Slightly important	28 (14%)	47 (11%)	16 (4%)	5 (2%)	1 (2%)
Moderately important	55 (28%)	142 (33%)	117 (30%)	49 (22%)	11 (20%)
Very important	43 (22%)	147 (3%)	153 (39%)	98 (44%)	19 (35%)
Extremely important	35 (18%)	70 (17%)	83 (21%)	60 (27%)	22 (41%)
$\chi^2 = 120.14, p < 0.001$					

Satisfaction of "The challenge or sport" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Very dissatisfied	7 (4%)	4 (1%)	11 (3%)	7 (3%)	4 (8%)
Somewhat dissatisfied	10 (5%)	35 (8%)	32 (8%)	24 (11%)	5 (9%)
Neutral	81 (44%)	122 (30%)	98 (26%)	44 (20%)	15 (28%)
Somewhat satisfied	55 (30%)	175 (42%)	161 (42%)	84 (39%)	19 (36%)
Very satisfied	32 (17%)	77 (19%)	79 (21%)	58 (26%)	10 (19%)
$\chi^2 = 47.60, p < 0.001$					

Importance of "Family recreation" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	28 (14%)	48 (11%)	25 (6%)	21 (10%)	4 (8%)
Slightly important	20 (10%)	45 (11%)	35 (9%)	18 (8%)	3 (6%)
Moderately important	42 (22%)	107 (25%)	103 (26%)	51 (23%)	8 (15%)
Very important	54 (28%)	142 (33%)	140 (36%)	83 (38%)	13 (25%)
Extremely important	51 (26%)	85 (20%)	89 (23%)	45 (21%)	24 (46%)

$\chi^2 = 35.28, p = 0.004$

Importance of "Family recreation" & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Not at all important	1 (11%)	0 (0%)	4 (5%)	11 (5%)	35 (10%)	49 (12%)	27 (26%)	0 (0%)
Slightly important	2 (22%)	1 (3%)	3 (4%)	16 (7%)	41 (11%)	37 (9%)	8 (8%)	1 (25%)
Moderately important	1 (11%)	8 (24%)	16 (20%)	56 (24%)	83 (23%)	110 (28%)	25 (24%)	1 (25%)
Very important	4 (44%)	11 (33%)	26 (32%)	89 (39%)	122 (34%)	116 (29%)	27 (26%)	2 (50%)
Extremely important	1 (11%)	13 (39%)	32 (40%)	59 (26%)	80 (22%)	86 (22%)	18 (17%)	0 (0%)

$\chi^2 = 75.57, p < 0.001$

Satisfaction of "Family recreation" & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Very dissatisfied	0 (0%)	1 (3%)	1 (1%)	2 (1%)	7 (2%)	12 (3%)	10 (11%)	0 (0%)
Somewhat dissatisfied	(0%)	1 (3%)	3 (4%)	8 (4%)	15 (4%)	23 (6%)	4 (4%)	1 (25%)
Neutral	3 (33%)	6 (18%)	20 (25%)	71 (32%)	112 (31%)	132 (34%)	28 (29%)	2 (50%)
Somewhat satisfied	2 (22%)	10 (30%)	29 (37%)	80 (36%)	118 (33%)	117 (30%)	26 (27%)	1 (25%)
Very satisfied	4 (44%)	15 (45%)	26 (33%)	62 (28%)	105 (29%)	108 (28%)	27 (28%)	0 (0%)

$\chi^2 = 44.82, p = 0.023$

Importance of "Catching a trophy fish" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	71 (37%)	106 (25%)	63 (16%)	25 (11%)	1 (2%)
Slightly important	30 (15%)	86 (20%)	65 (16%)	39 (17%)	7 (13%)
Moderately important	55 (28%)	129 (30%)	139 (36%)	73 (33%)	12 (22%)
Very important	20 (10%)	65 (15%)	81 (21%)	41 (19%)	9 (17%)
Extremely important	18 (9%)	37 (9%)	42 (11%)	45 (20%)	25 (46%)

$\chi^2 = 131.58, p < 0.001$

Satisfaction of "Catching a trophy fish" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Very dissatisfied	17 (9%)	34 (8%)	44 (12%)	44 (20%)	14 (26%)
Somewhat dissatisfied	19 (11%)	69 (17%)	70 (18%)	39 (18%)	13 (25%)
Neutral	108 (60%)	208 (50%)	169 (44%)	72 (33%)	13 (25%)
Somewhat satisfied	18 (10%)	76 (18%)	70 (18%)	37 (17%)	7 (13%)
Very satisfied	18 (10%)	26 (6%)	27 (7%)	26 (12%)	6 (11%)

$\chi^2 = 70.18, p < 0.001$

Satisfaction of "Catching a trophy fish" & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Very dissatisfied	0 (0%)	4 (12%)	10 (13%)	27 (12%)	52 (14%)	45 (12%)	11 (11%)	1 (25%)
Somewhat dissatisfied	2 (22%)	7 (21%)	11 (14%)	58 (26%)	57 (16%)	45 (12%)	20 (21%)	1 (25%)
Neutral	3 (33%)	11 (33%)	40 (51%)	97 (43%)	163 (45%)	183 (47%)	41 (43%)	2 (50%)
Somewhat satisfied	2 (22%)	9 (27%)	13 (17%)	30 (13%)	61 (17%)	71 (18%)	12 (13%)	0 (0%)
Very satisfied	2 (22%)	2 (6%)	4 (5%)	14 (6%)	26 (7%)	43 (11%)	12 (13%)	0 (0%)

$\chi^2 = 41.36, p = 0.050$

Importance of "Catching the most fish possible" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	80 (41%)	156 (37%)	124 (32%)	65 (29%)	10 (19%)
Slightly important	37 (19%)	76 (18%)	97 (25%)	50 (22%)	13 (24%)
Moderately important	51 (26%)	119 (28%)	104 (27%)	51 (23%)	15 (28%)
Very important	14 (7%)	47 (11%)	40 (10%)	31 (14%)	6 (11%)
Extremely important	12 (6%)	22 (5%)	25 (6%)	26 (12%)	10 (19%)
$\chi^2 = 39.42, p = 0.001$					

Importance of "Catching the most fish possible" & Age								
	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Not at all important	5 (56%)	6 (18%)	25 (31%)	56 (24%)	120 (33%)	150 (38%)	58 (54%)	1 (25%)
Slightly important	2 (22%)	4 (12%)	11 (14%)	53 (23%)	74 (20%)	93 (24%)	18 (17%)	1 (25%)
Moderately important	1 (11%)	11 (33%)	26 (33%)	73 (32%)	101 (28%)	93 (24%)	16 (15%)	1 (25%)
Very important	0 (0%)	3 (9%)	9 (11%)	30 (13%)	38 (10%)	33 (8%)	10 (9%)	1 (25%)
Extremely important	1 (11%)	9 (27%)	9 (11%)	19 (8%)	32 (9%)	22 (6%)	5 (5%)	0 (0%)
$\chi^2 = 69.08, p < 0.001$								

Satisfaction of "Catching the most fish possible" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Very dissatisfied	25 (14%)	32 (8%)	31 (8%)	26 (12%)	6 (12%)
Somewhat dissatisfied	19 (10%)	43 (11%)	40 (11%)	31 (15%)	4 (8%)
Neutral	112 (62%)	230 (56%)	209 (55%)	96 (45%)	24 (46%)
Somewhat satisfied	16 (9%)	80 (20%)	65 (17%)	40 (19%)	11 (21%)
Very satisfied	10 (5%)	24 (6%)	32 (8%)	20 (9%)	7 (13%)
$\chi^2 = 32.07, p = 0.010$					

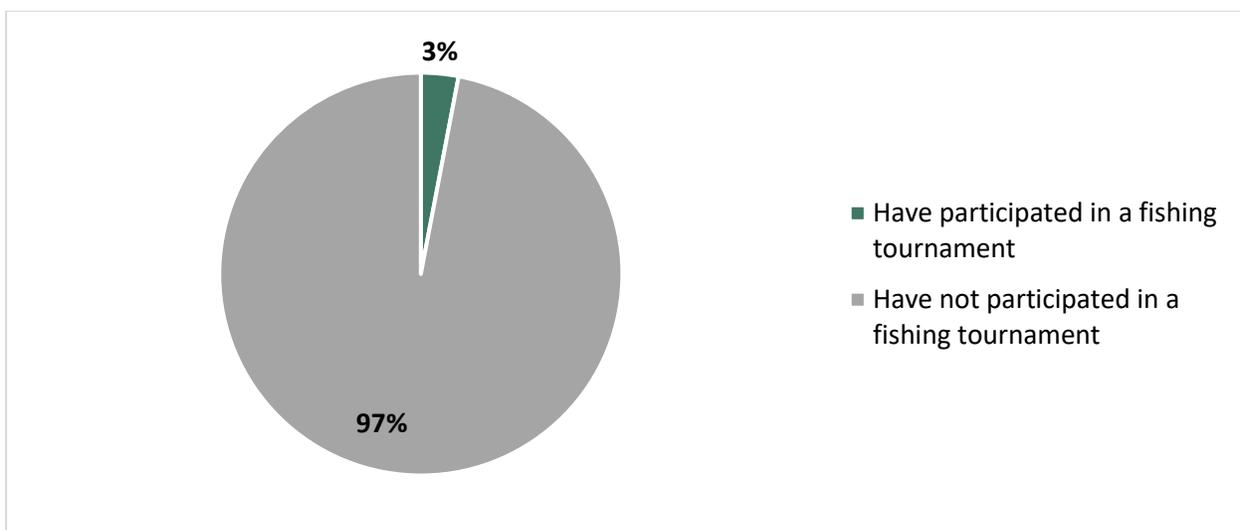
Importance of "Fishing for food" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Not at all important	109 (56%)	203 (48%)	169 (43%)	84 (38%)	14 (25%)
Slightly important	40 (21%)	92 (22%)	88 (22%)	50 (22%)	13 (23%)
Moderately important	27 (14%)	76 (2%)	75 (19%)	45 (20%)	12 (21%)
Very important	13 (7%)	38 (9%)	41 (10%)	29 (13%)	12 (21%)
Extremely important	6 (3%)	17 (4%)	20 (5%)	15 (7%)	5 (9%)

$\chi^2 = 34.29, p = 0.005$

Satisfaction of "Fishing for food" & Expertise					
	Beginner	Competent	Proficient	Advanced	Expert
Very dissatisfied	19 (10%)	21 (5%)	33 (9%)	19 (9%)	9 (17%)
Somewhat dissatisfied	15 (8%)	48 (12%)	42 (11%)	32 (15%)	8 (15%)
Neutral	104 (56%)	248 (60%)	194 (52%)	90 (42%)	20 (37%)
Somewhat satisfied	30 (16%)	66 (16%)	70 (19%)	45 (21%)	12 (22%)
Very satisfied	18 (10%)	28 (7%)	36 (10%)	27 (13%)	5 (9%)

$\chi^2 = 35.73, p = 0.003$

Appendix A.10: Percentage of respondents who have participated in a Striped Bass and Bodie Bass fishing tournament (n = 1,364)



Appendix A.11: List of Striped Bass and Bodie Bass fishing tournament respondents have participated in (n = 33)

Tournament	n
Lake Norman	5
Striped Bass Challenge	4
Buggs Island	4
Local	3
NSBA	3
Striped Bass	3
Striper Swiper	2
Badin	2
Lake Gaston	2
High Rock Striped Bass Challenge	2
Hybrid classic	1
Kerr	1
Striper Mafia	1
Ole North State Line Siders	1
New Bern	1
Jordan Lake Club	1
NC Striper Association	1
Private tournament	1

Appendix A.12: Which fishing clubs respondents are members of (n = 19)

Fishing Club	n
NC/VA Striper Association	4
Jordan Lake Striped Bass	3
Lake Gaston Striper Club	2
Private	1
Tar Heel Team	1
Lake Norman Hybrids	1
LKN Striper Club	1
Carolina Bass	1
Buggs Island Striper	1
WNC Bass	1
SBAA	1
NFA	1

Appendix A.13: Other ways respondents found out about Striped Bass and Bodie Bass stocking (n = 53)

Theme	Description	n
Wildlife in North Carolina Magazine	Respondents found out about Striped Bass and Bodie Bass stocking through the Wildlife in North Carolina Magazine.	7
Game Warden	Respondents found out about Striped Bass and Bodie Bass stocking through conversations with Game Wardens.	6
Biology of fish	Respondents knew Striped Bass and Bodie Bass in lakes or reservoirs had to be stocked because they are typically anadromous.	6
Striper Club Member	Respondents knew about Striped Bass and Bodie Bass stocking through their fishing club.	5

Appendix A.14: Other communication channels respondents would prefer to receive Striped Bass and Bodie Bass fishing information from (n = 26)

Theme	Description	n
Postal mail	Respondents would like to receive information about Striped Bass and Bodie Bass in lakes or reservoirs through the mail.	8
Email	Respondents would like to receive information about Striped Bass and Bodie Bass to their email address.	7
Texts	Respondents would like information about Striped Bass and Bodie Bass through a text message.	2
Podcasts	Respondents would like information about Striped Bass and Bodie Bass through podcasts, one respondent named the Two Bald Biologists.	2
Guest speakers at fishing clubs	Respondents would like information about Striped Bass and Bodie Bass through guest speakers at their fishing clubs.	2

Appendix A.15: Other reasons respondents do not fish for Striped Bass and Bodie Bass in lakes or reservoirs NC (n = 1,043)

Theme	Description	n
Saltwater fishing only	Respondents do not fish for Striped Bass and Bodie Bass in lakes or reservoirs because they only fish saltwater species.	157
Do not fish at all	Respondents do not fish for Striped Bass and Bodie Bass in lakes or reservoirs because they do not fish at all.	134
Issues with regulations	Respondents do not fish for Striped Bass and Bodie Bass in lakes or reservoirs because they have concerns with the regulations in doing so.	134
None near me	Respondents do not fish for Striped Bass and Bodie Bass in lakes or reservoirs because there are no lakes or reservoirs near them.	119

Appendix A.16: Other ways respondents would be encouraged to begin fishing in lakes or reservoirs for Striped Bass and Bodie Bass (n = 190)

Theme	Description	n
If they fished lakes or reservoirs	Respondents would be more encouraged to begin fishing in lakes or reservoirs for Striped Bass and Bodie Bass if they fished lakes or reservoirs	35
If they had a boat	Respondents would be more encouraged to begin fishing in lakes or reservoirs for Striped Bass and Bodie Bass if they had a boat, or the NCWRC would buy one for them.	31
If there were lakes or reservoirs near them	Respondents would be more encouraged to begin fishing in lakes or reservoirs for Striped Bass and Bodie Bass if there were lakes or reservoirs near where they lived.	24

Appendix B: Survey Instrument

The N.C. Wildlife Resources Commission (NCWRC) is conducting a study of licensed anglers to learn more about fishing participation in North Carolina.

This survey will take approximately 10-12 minutes to complete. Any information you provide during the survey will be kept confidential and no personal details will be shared. You may opt out of any questions that you feel uncomfortable answering by skipping them.

By agreeing to participate in the survey, you acknowledge that you have read and understood the **voluntary nature** of your participation, that you are at least **18 years of age**, and that you **may choose** to enter a prize drawing for full completion of the survey.

Do you agree to participate?

- Yes
- No

Block A: Fishing Information

1. What species of freshwater fish did you fish for in the last 12 months? *Select all that apply.*

- ❖ Striped Bass or hybrid Striped Bass
- ❖ Black Bass (Alabama, Largemouth, Smallmouth, and/or Spotted)
- ❖ Bullhead Catfish (White Catfish, Brown, Yellow, Black, Snail, and/or Flat Bullhead)
- ❖ Catfish (Blue, Channel, and/or Flathead)
- ❖ Crappie (Black and/or White)
- ❖ Mountain Trout (Brook, Brown, and/or Rainbow)
- ❖ Muskellunge (Muskie)
- ❖ Panfish (Bluegill, Shellcracker, Redbreast, Rock Bass, and/or Perch, etc.)
- ❖ Walleye
- ❖ Anything I can catch
- ❖ I did not go fishing in the last 12 months
- ❖ Other, please describe: _____

2. Did you fish for **Striped Bass or hybrid Striped Bass in lakes or reservoirs and their tributaries** (hereinafter lakes or reservoirs), coastal rivers, or both?

- Lakes or reservoirs and their tributaries
- Both lakes or reservoirs and coastal rivers
- Coastal rivers (rivers that connect to the ocean)
- I don't fish for Striped Bass or hybrid Striped Bass

Block B: Non-Striped Bass or hybrid Striped Bass Anglers

3. Why don't you fish for Striped Bass or hybrid Striped Bass in lakes or reservoirs? *Select all that apply.*

- ❖ I fish for other species
- ❖ I don't own a boat
- ❖ There are no Striped Bass or hybrid Striped Bass near me
- ❖ I don't have time to fish for Striped Bass or hybrid Striped Bass
- ❖ I don't target specific species
- ❖ Other, please describe: _____

4. Would any of the following encourage you to fish for Striped Bass or hybrid Striped Bass in lakes or reservoirs in the future? *Select all that apply.*

- ❖ Regulation changes
- ❖ Stocking new locations
- ❖ More information on stocked locations
- ❖ Increase number of fish that are stocked, but at fewer locations
- ❖ Stocking locations near me
- ❖ No
- ❖ Other, please describe: _____

5. Are there any NC lakes or reservoirs you wish were stocked with Striped Bass or hybrid Striped Bass?

Block C: Striped Bass or hybrid Striped Bass Anglers

6. How many years have you been fishing on North Carolina lakes or reservoirs?

- Less than 5 years
- 6-10 years
- 11-20 years
- 21-30 years
- More than 30 years

7. How many years have you been fishing for Striped Bass or hybrid Striped Bass in lakes or reservoirs?

- Less than 5 years
- 6-10 years
- 11-20 years
- 21-30 years
- More than 30 years

8. Would you say that you fish for mostly Striped Bass, mostly hybrid Striped Bass, or both about equally?

- Mostly Striped Bass
- Both about equally
- Mostly hybrid Striped Bass
- Unsure

9. Has your level of Striped Bass or hybrid Striped Bass fishing activity changed since you began fishing?

- It increased
- It stayed the same
- It decreased
- Unsure

10. How would you rate your expertise as a Striped Bass or hybrid Striped Bass angler?

- Beginner
- Competent
- Proficient
- Advanced
- Expert

11. When **Striped Bass** fishing in North Carolina, do you mostly harvest the legal fish you catch, mostly release them, or do both about equally?

- Mostly practice catch and release
- Mostly practice legal harvest
- Both about equally
- Unsure
- I only fish for hybrid Striped Bass

12. When **hybrid Striped Bass** fishing in North Carolina, do you mostly harvest the legal fish you catch, mostly release them, or do both about equally?

- Mostly practice catch and release
- Mostly practice legal harvest
- Both about equally
- Unsure
- I only fish for Striped Bass

13. In the last 12 months, on which of the following lakes or reservoirs did you fish for Striped Bass or hybrid Striped Bass? *Select all that apply.*

- | | |
|-----------------------------|---------------------------------|
| ❖ Badin Lake | ❖ Lake Norman |
| ❖ Lake Chatuge | ❖ Oak Hollow Lake |
| ❖ Farmer Lake | ❖ Lake Rhodhiss |
| ❖ Lake Gaston | ❖ Roanoke Rapids Lake |
| ❖ Lake Hiwassee | ❖ Salem Lake |
| ❖ Lake Hickory | ❖ Lake Tillery |
| ❖ High Rock Lake | ❖ Tuckertown Lake |
| ❖ Hyco Lake | ❖ W. Kerr Scott Reservoir |
| ❖ Lookout Shoals Lake | ❖ Other, please describe: _____ |
| ❖ Moss Lake/King's Mountain | |

14. Please rank the lakes or reservoirs in order from **most frequently fished to least frequently fished** for Striped Bass or hybrid Striped Bass.

Note: In the online version, respondents were given the lakes they selected in question 13, while mail-in respondents were given four spaces to rank lakes, but could list more.

15. What type of vessel do you fish from most often when you're fishing for Striped Bass or hybrid Striped Bass in lakes or reservoirs?

- None, bank fish only
- Kayak
- Canoe
- Motorized boat
- Non-motorized boat (i.e. rowboat, dinghy)
- Other, please describe: _____

16. How many people (including yourself) do you usually fish with (in numbers), when you are fishing for Striped Bass or hybrid Striped Bass in lakes or reservoirs? _____

17. Overall, how satisfied have you been with your Striped Bass or hybrid Striped Bass fishing experience in lakes or reservoirs in the last 12 months?

- Very dissatisfied
- Somewhat dissatisfied
- Neutral
- Somewhat satisfied
- Very satisfied

18. To what extent did the following negatively impact your satisfaction with Striped Bass or hybrid Striped Bass fishing in lakes or reservoirs in the last 12 months?

	No impact	Minor impact	Moderate impact	Major impact
The lake was not stocked with Striped Bass				
The lake was not stocked with hybrid Striped Bass				
I don't know what lakes are stocked with Striped Bass or hybrid Striped Bass				
I don't have enough time to fish for Striped Bass or hybrid Striped Bass				
Lakes or reservoirs are too crowded				
Other anglers have poor behavior				
The Striped Bass or hybrid Striped Bass I catch are too small to keep				
I have no one to fish with				
I do not catch enough Striped Bass or hybrid Striped Bass in the lakes or reservoirs I fish				
There are not enough trophy Striped Bass or hybrid Striped Bass				
I don't have anywhere to fish for Striped Bass or hybrid Striped Bass near me				
The water quality in lakes or reservoirs near me is poor				
It is too expensive to fish for Striped Bass or hybrid Striped Bass				
I don't have a boat to fish from				
I don't know how to fish for Striped Bass or hybrid Striped Bass				
Regulations are too confusing				
I worry about environmental contamination and consuming the Striped Bass or hybrid Striped Bass I harvest				
Other, please describe: _____				

19. Please select how **important** each of the following items is to your Striped Bass or hybrid Striped Bass fishing experience in North Carolina lakes or reservoirs.

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
The experience of the catch					
Fishing for food					
The challenge or sport					
Catching a trophy fish					
Family recreation					
Being outdoors					
Being close to the water					
Being alone					
Relaxation					
Catching the most fish possible					

20. Please select how **satisfied** you have been with each of the same items in your experience fishing for Striped Bass or hybrid Striped Bass in North Carolina lakes and reservoirs.

	Very dissatisfied	Somewhat dissatisfied	Neutral	Somewhat satisfied	Very satisfied
The experience of the catch					
Fishing Food					
The challenge or sport					
Catching a trophy fish					
Family recreation					
Being outdoors					
Being close to the water					
Being alone					
Relaxation					
Catching the most fish possible					

Block D: Striped Bass or hybrid Striped Bass Fishing Economics

21. In the last 12 months, how many days did you spend Striped Bass or hybrid Striped Bass fishing in **lakes or reservoirs**? _____

22. In the last 12 months, how many trips away from your home did you take Striped Bass or hybrid Striped Bass fishing in **lakes or reservoirs**? (A trip can be a single day or several days) _____

23. Approximately how many **miles** one-way, did you travel **on a typical trip** from your residence to go Striped Bass or hybrid Striped Bass fishing? _____

24. On your typical **Striped Bass or hybrid Striped Bass** fishing trip to **lakes or reservoirs** in the last 12 months, approximately how much did you spend for the following? *(Include the amount that you spent for all persons you covered the costs for or shared the costs with (i.e. children, spouse, etc.))*

Category	Cost
Food & Beverages (at restaurants, convenience stores, etc.)	\$
Transportation to and from where you fish (gas, car maintenance, etc.)	\$
Fishing expenses (gear, bait, equipment rentals, launch fees, etc.)	\$
Lodging (hotels, campgrounds, etc.)	\$
Other trip expenses (souvenirs, other entertainment expenses, etc.)	\$

Block E: Tournament and Club Participation

25. Have you ever participated in a Striped Bass and/or hybrid Striped Bass fishing tournament?

- Yes (Which one? _____)
- No
- Unsure

26. Are you a member of a Striped Bass or hybrid Striped Bass fishing club?

- Yes (Which one? _____)
- No
- Unsure

27. Would you be willing to share contact information for your fishing club so that we may share the results of the study and future research? If so, please share contact information below:

Block F: Striped Bass and hybrid Striped Bass Stocking Program

28. Are you aware all reservoir Striped Bass and hybrid Striped Bass are stocked by the NCWRC?

- Yes (Continue below)
- No (Skip to Block G)

29. How did you find out that the majority of Striped Bass or hybrid Striped Bass are stocked by the NCWRC?

- Word of mouth
- NCWRC website or social media
- By catching more Striped Bass or hybrid Striped Bass than previously
- Through signage
- By seeing stocking take place
- Other, please describe: _____

30. How satisfied or dissatisfied are you with the **current stocking program** of Striped Bass or hybrid Striped Bass in North Carolina?

- Very dissatisfied
- Somewhat dissatisfied
- Neutral
- Somewhat satisfied
- Very satisfied

31. Please select the option that best describes how you feel about the Striped Bass or hybrid Striped Bass lake and reservoir stocking program.

- I am pleased with the stocking program and do not think anything needs to be changed
- I think that more Striped Bass need to be stocked and less hybrid Striped Bass
- I think that more hybrid Striped Bass need to be stocked and less Striped Bass
- I think more fish should stocked, even if it means fewer overall lakes are stocked
- I think the stocking program should consider new reservoirs (List here: _____)
- I do not think Striped Bass or hybrid Striped Bass should continue to be stocked into lakes or reservoirs

32. Would any of the following make you more satisfied with the current stocking program? *Select all that apply.*

- ❖ Regulation change
- ❖ Stocking new locations
- ❖ Increased number of fish that are being stocked, but at fewer locations
- ❖ Updated information on stocked locations
- ❖ Stocking locations near me
- ❖ Other, please describe: _____

Block G: Hypothetical Striped Bass Regulation Change

Reservoir Striped Bass require cooler temperatures and higher oxygen concentrations than hybrid Striped Bass. In the summer when water temperatures are high and oxygen is low, Striped Bass become stressed, and as a result, often suffer a high mortality rate after being caught and released. Some states institute a “No culling” regulation for Striped Bass during hot summer months to reduce catch and release mortality. A “No culling” regulation would require anglers to keep all fish caught then cease fishing for Striped Bass once the daily creel limit is reached. This essentially eliminates catch and release practices during the summer months.

33. How much do you support or oppose a “No culling” regulation for Striped Bass in specific lakes or reservoirs during the summer months?

- Strongly oppose
- Somewhat oppose
- Neutral
- Somewhat support
- Strongly support

34. What type of impact would a “No culling” regulation for Striped Bass during the summer months have on your fishing experience?

- Strong negative impact
- Somewhat negative impact
- No impact
- Somewhat positive impact
- Strong positive impact

35. If a “No culling” regulation was instated during the summer months for Striped Bass in the lake or reservoir you fish most often, which of the following changes would you make to your fishing habits?

- No change, I would continue to fish for Striped Bass at the same lake
- I would fish for other species at the same lake
- I would fish for Striped Bass at a lake without that regulation in North Carolina
- I would fish for Striped Bass at a lake outside of North Carolina

Block H: Striped Bass or hybrid Striped Bass Communication Preferences

36. How would you prefer to receive information about Striped Bass or hybrid Striped Bass fishing in North Carolina?

Select all that apply.

- | | | |
|----------------------------------|----------------------------|------------------------------------|
| ❖ Friend/Family/Neighbors | ❖ Public meetings | ❖ NCWRC emails |
| ❖ Regulations
Digest/Brochure | ❖ An internet search | ❖ Podcast |
| ❖ Newspaper/Magazine/Books | ❖ NCWRC website | ❖ Video (YouTube) |
| | ❖ Social Media | ❖ Other, please describe:
_____ |
| | ❖ Fishing or outdoor clubs | |

37. What kind of information would you like to receive from the NCWRC about Striped Bass and/or hybrid Striped Bass?

Block I: Demographics and Prize Drawing

This last set of questions will help us get to know the people we have the privilege of serving. This information will only be used for internal research purposes and will not be shared with anyone. Your responses are voluntary and confidential.

38. In what zip code is your primary residence? _____

39. What is your gender?

- Male
- Female
- Prefer not to say

40. What is the highest level of formal education you have completed?

- Less than high school
- High school diploma
- Some college or Associates degree
- Bachelors or 4-year degree
- Graduate or professional degree
- Prefer not to say

41. What is your age?

- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- 75-84 years old
- 85 years or older
- Prefer not to say

42. Please select the race(s) with which you most identify. Select all that apply.

- ❖ White
- ❖ Black or African American
- ❖ American Indian or Alaskan Native
- ❖ Asian
- ❖ Native Hawaiian or another Pacific Islander
- ❖ Other
- ❖ Prefer not to say

43. Are you of Hispanic, Latino/a or Spanish origin?

- Yes
- No
- Prefer not to say

44. Which of the following best represents your gross household income before taxes last year?

- Less than \$20,000
- \$20,000-\$39,999
- \$40,000-\$59,999
- \$60,000-\$79,999
- \$80,000-\$99,999
- \$100,000-\$119,999
- \$120,000 or more
- Prefer not to say

45. If you would be willing to be contacted further by a biologist about your experience Striped Bass or hybrid Striped Bass fishing in lakes or reservoirs and their tributaries, please list contact information here: _____

46. If you would like to be entered into a prize drawing for 1 of 10 \$50 Bass Pro Shop gift cards, please enter a valid email address so that we may contact you if your name is drawn: _____

47. If you have any additional comments or questions regarding the Striped Bass or hybrid Striped Bass Stocking Program, please share them below: _____