

Fisheries Research Summary

Division of Inland Fisheries

N.C. Wildlife Resources Commission



Popularity Contest Winners Announced: Largemouth Bass and Striped Bass Tops Among Tar River Anglers

A recent creel survey conducted by the N.C. Wildlife Resources Commission found that anglers on the Tar River spent most of their time in pursuit of largemouth bass and striped bass, while sunfish and crappie were the gamefish most frequently caught and harvested.

The 12-month creel survey, conducted from July 1, 2004 through June 30, 2005, also revealed that Tar River anglers fished 31,082 hours for largemouth bass, caught 60,987 sunfish and harvested 21,471 crappie.

Creel survey objectives

Primary goals of the survey were to estimate fishing effort, the number and types of fish caught, and the number of fish that were kept for consumption.

769 anglers were interviewed who fished for an estimated 104,140 hours during the study period. Anglers targeted largemouth bass 30 percent of the time, followed by striped bass (14 percent); sunfish (bluegill, redear, pumpkinseed and redbreast, 13 percent); crappie (9 percent); and anadromous shad (4 percent). Twenty-seven percent of the hours were logged by generalist anglers who said they were fishing for either a combination of species or "anything that bites."

Staff estimated that 164,250 fish were caught during the survey, of which 46,000 were harvested. Sunfish accounted for 37 percent of the catch and 36 percent of the total harvest. Crappie accounted for 24 percent of the catch and 47 percent of the harvest. Catch and harvest estimates of crappie and sunfish from the Tar River ranked among the highest reported from North Carolina coastal rivers. While largemouth bass and striped bass combined for 58 percent of the total catch, only about 1 percent of those fish were kept by anglers.

Of the 769 Tar River anglers interviewed, 83 percent were local anglers who resided in Beaufort, Pitt, Edgecombe and Nash counties. Seventeen percent of the anglers lived in other counties of North Carolina. Only 1 percent of the anglers were from out-of-state locales, including Colorado, South Carolina, Virginia and West Virginia.



Conducting a creel survey



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To estimate the economic value of the Tar River fishery, anglers were asked how much money they spent per trip on bait, food, gas and lodging. Anglers reportedly spent an average of \$4.12 per trip totaling \$429,000 to fish the Tar River each year. This estimate does not include the cost of items such as boats, motors, fishing rods and tackle.

Anglers also said that they would be willing to spend almost twice the average cost per trip to come back and spend a similar day fishing on the Tar River.

When angler "willingness to pay" was added to the estimated expenditures, the total economic value associated with angling on the Tar River during the survey was nearly \$1 million.

Total effort and catch of largemouth bass and striped bass during the survey were similar to what has been reported for the Cape Fear, Neuse and Chowan rivers. However, the numbers of fish kept were lower than reported in other coastal rivers.

Largemouth bass anglers on the Tar practiced primarily catch-and-release fishing as only 1 percent of the largemouth bass caught were harvested. Striped bass anglers reported catching mostly sub-legal fish during the creel survey (the minimum size limit is 18 inches).



8-inch largemouth bass

Commission electrofishing surveys on the Tar River confirmed the presence of small striped bass in the system. Of the 1,423 stripers that were collected during our spring electrofishing survey in 2005, 86 percent were less than 18 inches.

Biologists plan to repeat this survey within 10 years to monitor changes in angling trends. In the meantime, results from this survey will allow us to refine our management strategies to ensure that quality angling opportunities remain available on the Tar River.

