



2021 LATE SPRING ELECTROFISHING SURVEY REPORT

WATER: FISHER LAKE

COUNTY: FLORENCE

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INTRODUCTION AND SURVEY OBJECTIVES

The DNR conducted a late spring electrofishing survey of Fisher Lake in 2021. This survey is designed to assess the bass populations within the lake, as well as the panfish community. Gamefish and black crappie were collected the entire time, while all fish were collected from a 0.5 mile station. Fisher Lake is located in the town of Florence, with boat access within the county park.

General Waterbody Characteristics: Lake Class: Simple - Cool - Dark

Acres: 54

Shoreline Miles: 1.4

Maximum Depth (feet): 49

Lake Type: Drainage

Public Access: Boat Landing

Regulations: Statewide Regulations

WISCONSIN DNR CONTACT INFO.

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Table 1. Summary of all surveys conducted during 2021

SURVEY INFORMATION

Species	Survey Date(s)	Gear Used	Effort	Water Temp. (°F)
Largemouth Bass, Northern Pike, Black Crappie	5/25/2021	Boomshocker	1.44 Miles	67

FISH METRIC DESCRIPTIONS

Catch per unit effort (CPUE) is the number of fish per mile (electrofishing) or per net-night (netting) and is used to index abundance when we are unable to get a Population Estimate.

Relative stock density (RSD) is an index used to describe size structure of fish populations. It is calculated by dividing the number of fish larger than a certain length by the number of stock size fish for a given species. Stock size is a length set for each species and is used to offset potential large year classes of juvenile fish. Example: RSD6 is the percentage of fish (above stock length) that were greater than 6 inches during the survey.

Length frequency distribution (LFD) is a graphical representation of the number of fish captured by inch group. Smaller fish (or younger age classes) may not always be represented in the length frequency due to different habitat usage or sampling gear limitations.

Mean length at age is used to index growth. Structures are taken from a subsample of fish captured. These structures can be used to estimate the age of that particular fish. The mean length at each age is then used to characterize growth of the entire population.

SURVEY METHODS

- Surveys are designed to evaluate each species when they are particularly vulnerable to our gear.
- Standard fyke nets and/or electrofishing gear is used to capture fish.
- Data is collected from the target species of each survey to gather population metrics.
- Fish metrics are compared to previous surveys of this water, and the mean/median values for waters in this "area" (Florence and Forest Counties).

Table 2. Summary of applicable fish metrics for this survey

PANFISH ABUNDANCE AND SIZE STRUCTURE

Species	CPUE (catch/mile)	RSD6	RSD7	RSD8	RSD9	RSD10	RSD11	RSD12
Bluegill	416.0	16.9	2.8	0.0				
Pumpkinseed	102.0	21.7	2.2	0.0				
Yellow Perch	58.0	27.3	18.2	9.1	0.0			
Black Crappie	1.4	88.9	77.8	22.2	11.1	0.0		
Rock Bass	2.0	0.0						



GEAR USED DURING THIS SURVEY

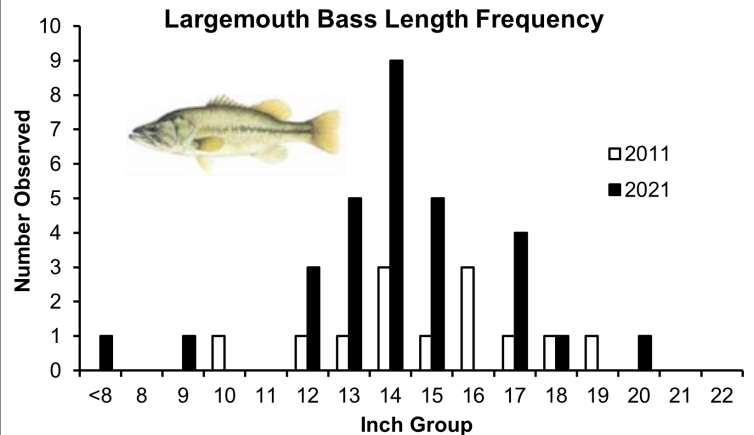
- **Boomshocker** is a specially designed boat that creates an electric current in the water immediately in front of the boat. The boat is driven along the shoreline and shallow areas of the lake, when the boat encounters fish they are momentarily stunned. Once the fish is stunned they can be netted out of the lake and placed in a holding tank. After data is collected the fish are returned to the lake.



LARGEMOUTH BASS

An electrofishing survey was conducted along the entire shoreline of Fisher Lake on the night of 5/25/2021 to assess the largemouth bass population. During this survey 30 largemouth bass were caught, 29 of which were considered adults, for a relative abundance of 20.14 adults/mile. This is an increase since 2011 when adult largemouth bass relative abundance was measured at 8.97 adults/mile. Current largemouth bass relative abundance is above the area average of 17.0 adults/mile, and the median for its lake class (18.46 fish/mile). Fisher Lake is considered to have a moderately abundant largemouth bass population.

All largemouth bass caught were measured to assess the size structure of the largemouth bass population. All fish less than 8 inches were removed for size structure analysis. Of the sample, 96.6% were ≥ 12 inches, 20.7% were ≥ 16 inches, and 3.5% were ≥ 20 inches. Size structure has increased since 2011 when 92.3% were ≥ 12 inches, 46.2% were ≥ 16 inches, and no fish were ≥ 20 inches. A length frequency figure comparing the two surveys can be seen to the right. Fisher Lake is considered to have high size structure as it is above the area average of 69.5% ≥ 12 inches, 19.8% ≥ 16 inches, and 0.7% ≥ 20 inches. The longest largemouth bass caught during this survey was 20.5 inches.



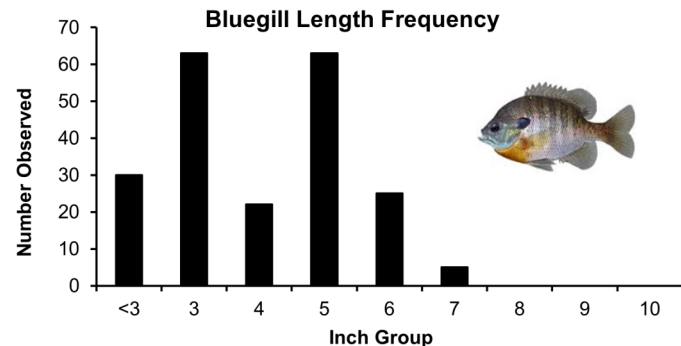
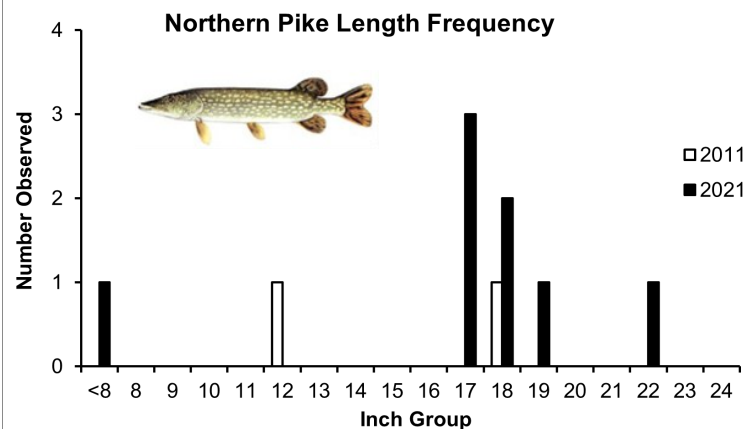
BLUEGILL

A total of 208 bluegill were caught during the all fish station, for a relative abundance of 416.0 fish/mile (Table 2), indicating an abundant bluegill population in Fisher Lake.

Bluegill size structure (Table 2) is well below the area average (61.6% ≥ 6 inches and 31.1% ≥ 7 inches) and considered low.

NORTHERN PIKE

A total of 8 northern pike were captured during this survey, a relative abundance of 5.56 fish/mile. Northern pike had a low relative abundance of 1.38 fish/mile during the same type of survey in 2011. This type of survey does not adequately assess northern pike, and an early spring fyke net survey would be needed to accurately assess the population. However, the data from this survey suggests that the northern pike population is likely quite abundant, as this relative abundance is in the 88th percentile for the state during this survey.



OTHER SPECIES

During this survey, we captured five fish species during the 0.5 mile "all fish" station that were not detailed in this summary. The list of these species (with catch/mile listed in parenthesis) is as follows: white sucker (22.0), golden shiner (10.0), common shiner (8.0), fathead minnow (2.0), and central mudminnow (2.0).

SURVEY NOTES

- The public launch to Fisher Lake provides good angler access.
- This survey indicated a largemouth bass population that provides good angling opportunity. The panfish community may also provide an adequate angling opportunity, though quality sized fish may be few and far between.
- This is the first spring assessment since 2011. Fall electrofishing surveys in 2005 and 2012 indicate low levels of gamefish recruitment.
- Fisher Lake may be difficult to assess due to most of the lake being relatively deep with quick dropping shorelines.
- Fisher Lake has been stocked with northern pike (last stocked in 1976), largemouth bass (last stocked in 1977), rainbow trout (last stocked in 2012) and walleye (last stocked in 2012). No stocking has occurred since 2012.
- Although no trout were caught in this survey, Fisher Lake is classified as trout water and is open for trout fishing from the first Saturday in May at 5:00am through the first Sunday in March with a bag limit of 3 trout in total and a minimum size limit of 8 inches.
- The current statewide regulations are appropriate for this water.
- Fisher Lake is on a 10 year sampling rotation. The next survey is scheduled for 2031.