# 2021 Spring Electrofishing (SEII) Summary Report
School Section Lake (WBIC 107500)
Marquette County

INTRODUCTION AND OBJECTIVES

In 2021, the Wisconsin Department of Natural Resources (WDNR) conducted a one night electrofishing survey of School Section Lake in order to provide insight and direction for the future fisheries management of this water body. Primary sampling objectives of this survey were to characterize species composition, relative abundance, and size structure. The following report is a brief summary of that survey including the general status of the fish populations and future management options for School Section Lake.

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Lake Information
Acres: 34
Maximum Depth (feet): 12 feet
Shoreline Miles: 0.9

SURVEY INFORMATION

Site Location	Survey Date	Water Temperature (°F)	Target Species	Total Miles Shocked	Number of Stations	Gear	Number of Netters
School Section Lake	5/13/2021	61.0	All	0.9	2	Boomshocker	2

Regulations:
Statewide Default Regulations

Fish Metric Descriptions
PSD, CPUE, LFD, and Mean Age at Length

Proportional Stock Density (PSD) is an index used to describe size structure of fish populations. It is calculated by dividing the number of quality size fish by the number of stock size fish for a given species. PSD values between 40 - 60 generally describe a balanced fish population.

Catch per unit effort (CPUE) is an index used to measure fish population relative abundance, which simply refers to the number of fish captured per unit of distance or time. For electrofishing surveys, we typically quantify CPUE by the number and size of fish per mile of shoreline. CPUE indexes are compared to statewide data by percentiles. For example, if a CPUE is in the 90th percentile, it is higher than 90% of the other CPUEs in the state.

Length frequency distribution (LFD) is a graphical representation of the number or percentage of fish captured by half inch or one inch size intervals. 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 Age at Length is an index used to assess fish growth. Calcified structures (e.g., otoliths) are collected from a specified length bin of interest (e.g., 5.5 - 6.4 inches for bluegill). Mean age is compared to statewide data by percentile with growth characterized by the following benchmarks: slow (<33rd percentile); moderate (33rd to 66th percentile); and fast (>66th percentile).

Survey Method

- School Section Lake was sampled according to spring electrofishing (SEII) protocols as outlined in the statewide lake assessment plan. The primary objective for this sampling period was to count and measure adult bass and panfish. Other gamefish and panfish may be sampled but are considered by-catch as part of this survey.

- We sampled the entire shoreline (0.9 miles). All fish captured were identified to species and gamefish and panfish were measured for length.

- Fish metrics used to describe fish populations include proportional stock density, catch per unit effort, and length frequency distributions.

SIZE STRUCTURE METRICS

Species	Total	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock Number	Quality Number	PSD	Percentile Rank	Size Rating
Bluegill	325	4.6	2.4 - 7.0	3.0 and 6.0	320	3	1	4th	Low
Pumpkinseed	126	5.4	3.1 - 6.7	3.0 and 6.0	126	30	24	40th	Moderate
Black crappie	6	11.6	9.2 - 14.2	5.0 and 8.0 inches	6	6	100	Too Few Fish	-
Largemouth bass	79	11.7	4.4 - 17.1	8.0 and 12.0	73	31	42	25th	Low
Northern pike	1	25.2	25.2	14.0 and 21.0 inches	1	1	100	Too Few Fish	-

ABUNDANCE METRICS

Species	CPUE ≥Stock Size (number per mile)	Percentile Rank	Overall Abundance Rating	Length Index	Length Index CPUE	Length Index Percentile Rank	Length Index Abundance Rating
Bluegill	356	97th	High	≥ 6.0 inches	3.3	16th	Low
Pumpkinseed	140	72nd	Moderate - High	≥ 6.0 inches	33.3	97th	High
Black crappie	7	60th	Moderate	≥ 8.0 inches	7.7	77th	Moderate –High
Largemouth bass	81	96th	High	≥ 14.0 inches	17.8	96th	High

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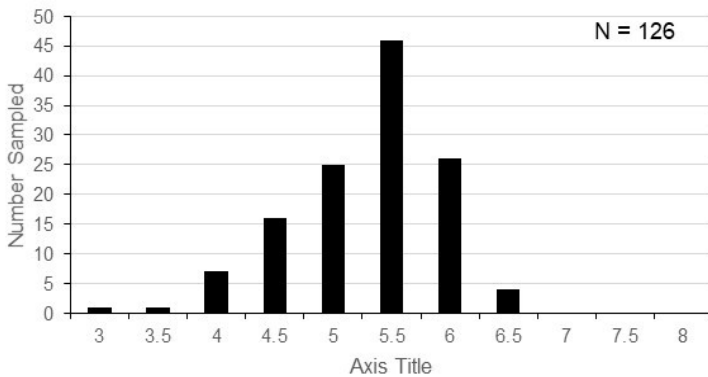

Bluegill Length Distribution
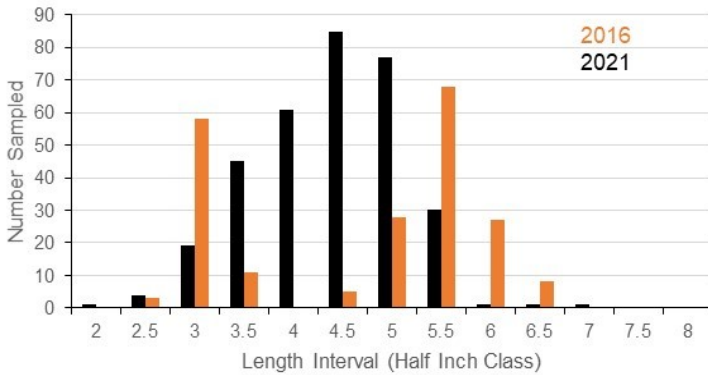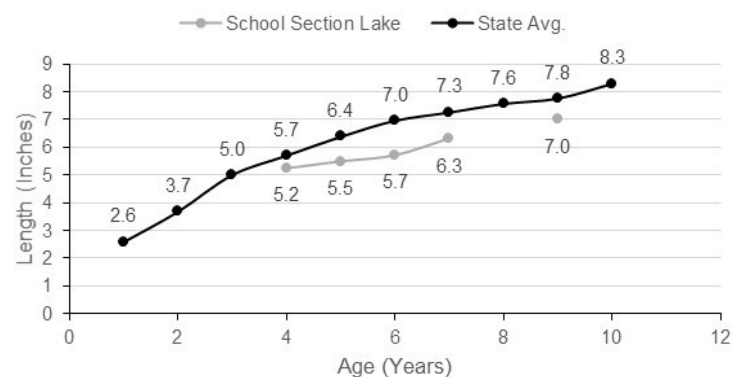

Largemouth Bass Length Distribution
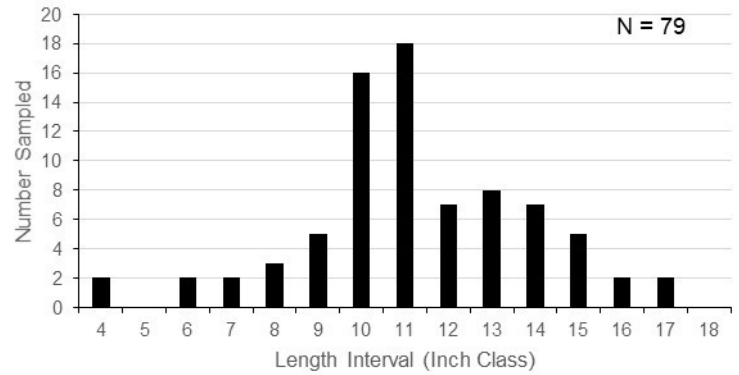
Pumpkinseed Length Distribution

Bluegill Mean Length at Age

Summary

- A total of 557 fish from 7 different species were captured in the electrofishing survey. The most frequently encountered and common species were bluegill (325), pumpkinseed (126), largemouth bass (79), brown bullhead (10) and yellow bullhead (10).

- Largemouth bass were the dominant gamefish species captured and had a 13 fold increase from survey in 2016. Largemouth bass were found in high densities with the number of fish ≥ 14 inches captured per mile of electrofishing at the 96th percentile statewide. Size structure was low when compared statewide with a PSD of 42. However, Overall the length frequency shows a strong year-class occurred within the last few years with good numbers of small bass upcoming to hopefully provide a few more larger bass.

- A fish of interest to many is the northern pike, but only one northern pike was captured. Electrofishing surveys are not a good method of assessing the northern pike population, typically they are sampled in early spring with nets.

- Bluegill were the dominant panfish species captured in the survey and their abundance increased 64% since the survey in 2016,. Densities of bluegill were high, ranking at the 97th percentile statewide, but size structure poor with a PSD of 1 and no bluegill ≥ 8.0 inches captured in either 2021 nor 2016. Bluegill growth rates in School Section Lake were slow with it taking 6-7 years to reach 6 inches in length.

- Another common panfish captured was pumpkinseed. These were in moderate - high abundance at the 72nd percentile statewide. Size structure was moderate with a PSD of 24 and at the 40th percentile statewide.

- A general increase in numbers of most species is likely due to the significant increase in water levels. This increase in water levels has resulted in the availability of much more critical spawning habitat and the terrestrial growth during low water has also increased the woody cover present in the lake.

- All fish captured in this survey are native species. Other species sampled in lower abundance included black crappie (6).