



2022 LATE SPRING PANFISH SURVEY REPORT

WATER: EAST BASS LAKE

COUNTY: FLORENCE

Page 1

INTRODUCTION AND SURVEY OBJECTIVES

The DNR conducted a late spring fyke net survey of East Bass Lake during 2022. This survey is designed to assess the summer spawning panfish populations (bluegill, pumpkinseed and rock bass) within the lake. East Bass Lake is located in the town of Homestead, with boat access off of County Road C.

WISCONSIN DNR CONTACT INFO.

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General Waterbody Characteristics:

Lake Class: Simple - Cool - Clear

Acres: 56

Shoreline Miles: 1.3

Maximum Depth (feet): 42

Lake Type: Seepage

Public Access: Boat Landing

Regulations: Statewide Regulations

Table 1. Summary of all surveys conducted during 2022		SURVEY INFORMATION		
Species	Survey Date(s)	Gear Used	Effort	Water Temp. (°F)
Bluegill, Pumpkinseed, Lepomis Hybrids, Rock Bass	6/21-6/22/2022	Fyke Net	6 Net-Nights	73-74

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.

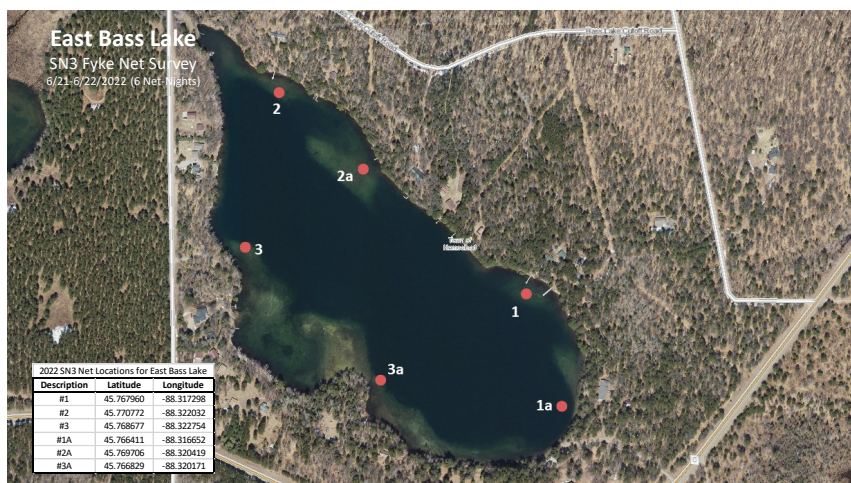
SURVEY METHODS

- 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/net-night)	RSD6	RSD7	RSD8	RSD9	RSD10	RSD11	RSD12
Bluegill	87.5	48.4	15.1	2.3	0.4	0.0		
Pumpkinseed	3.8	43.5	4.3	0.0				
Bluegill x PKS Hybrid	0.2	—						
Yellow Bullhead	2.8	—						
Black Crappie	4.2	100	100	96.0	8.0	0.0		



GEAR USED DURING THIS SURVEY

Fyke Nets

are set in areas where we anticipate fish to congregate. Fish traveling along the shoreline will be met by a "lead", which is similar to a fence. The lead directs the fish toward the trap end of the net. Fish travel through a series of funnels and eventually become trapped. Fish are then removed from the net and placed in holding tanks to gather data before being returned to the lake.



Photo Credit: Carl Sundberg



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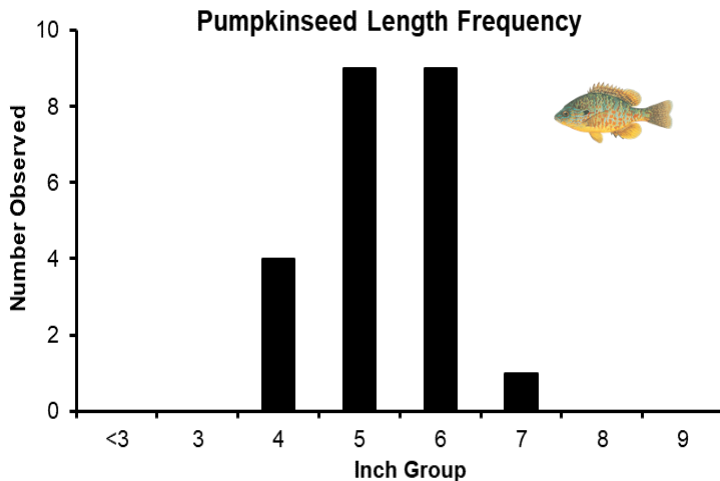
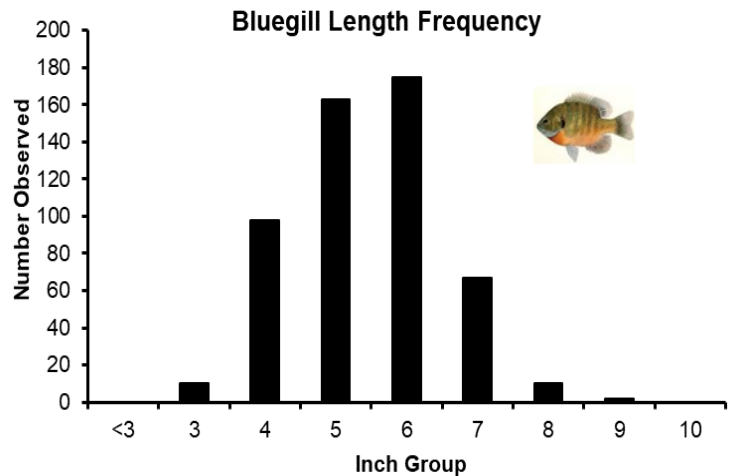
Page 2

BLUEGILL

During our two day fyke net survey, we captured 525 bluegill, which is a relative abundance of 87.5 bluegill/net-night. This puts the East Bass Lake bluegill population above the mean (62.0/net-night) and median (39.8/net-night) relative abundance of bluegill for this area.

Every bluegill captured was measured to assess size structure. The mean length of bluegill during this survey was 5.95 inches, with approximately 48.4% of the fish being ≥ 6 inches and 2.3% ≥ 8 inches in length. These data show that the size structure of this bluegill population is well below the area average of 60.2% ≥ 6 inches and 8.9% ≥ 8 inches.

Age and growth was not evaluated during this survey. In general, as populations become more abundant the growth rate and size structure will decrease due to competition. In the case of East Bass Lake, it makes sense that the size structure would be below average.



PUMPKINSEED

A total of 23 pumpkinseed were captured during this survey, giving them relative abundance of 3.8 fish/net-night. This suggests that pumpkinseed are likely the third most abundant panfish species in East Bass Lake, behind bluegill and black crappie.

Pumpkinseed size structure seems moderate, with 43.5% of the catch being ≥ 6 inches.

OTHER SPECIES

During this survey, we captured six fish species that were not detailed in this summary. The list of these species (with catch/net-night listed in parenthesis) is as follows: black crappie (4.2), largemouth bass (3.5), yellow bullhead (2.8), northern pike (0.7), walleye (0.7) and bluegill x pumpkinseed hybrid (0.2).

SURVEY NOTES

- The public launch to East Bass Lake provides good angler access.
- Stocking records for East Bass Lake include walleye stocking that has occurred since 2009. These fish are being stocked by the Homestead-Aurora Sportsmen's Club.
- 2022 was the first time a panfish netting survey was conducted on East Bass Lake.
- The survey indicated a bluegill population that provides angling opportunity. While size structure is lower than average there were quality fish sampled during this survey. Since abundance is above average, it is expected that size structure would be below average.
- East Bass Lake has had a very light history of fish surveys. A bass electrofishing survey in 2017 showed an adult largemouth bass population with above average abundance and below average size structure when compared to the area average. Walleye were found during the 2017 bass survey and observed during a 2016 spring walleye electrofishing survey, but were in locations too deep to capture.
- The current statewide regulations are appropriate for this water.
- East Bass Lake is considered a public access lake and is on a 10 year sampling rotation. If possible, an adult walleye survey should occur in the near future to assess the stocking efforts of the Sportsmen's Club.



Photo: A 28.8" walleye captured during this survey of East Bass Lake. (Photo Credit: WDNR)