2024 LATE SPRING PANFISH SURVEY REPORT

WATER: ROBINSON LAKE COUNTY: FOREST, VILAS

INTRODUCTION AND SURVEY OBJECTIVES

The U.S. Forest Service conducted a late spring fyke net survey of Robinson Lake during 2024. This survey is designed to assess the summer spawning panfish populations (bluegill, pumpkinseed and rock bass) within the lake. Robinson Lake is located in the township of Alvin, with boat access off of County Road A on Robinson Lake Drive.

General Waterbody Characteristics:

Lake Class: Simple - Cool - Clear

Acres: 34 | Shoreline Miles: 1.2 | Maximum Depth (feet): 20

Lake Type: Seepage | Public Access: Boat Landing | Regulations: Statewide Regulations

WISCONSIN DNR CONTACT INFO.

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Table 1. Summary of all surveys conducted during 2024

SURVEY INFORMATION				
Species	**Survey Date(s)**	**Gear Used**	**Effort**	**Water Temp. (°F)**
Bluegill, Pumpkinseed, Lepomis Hybrids, Rock Bass	5/21-5/23/2022	Fyke Net	6 Net-Nights	60

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.

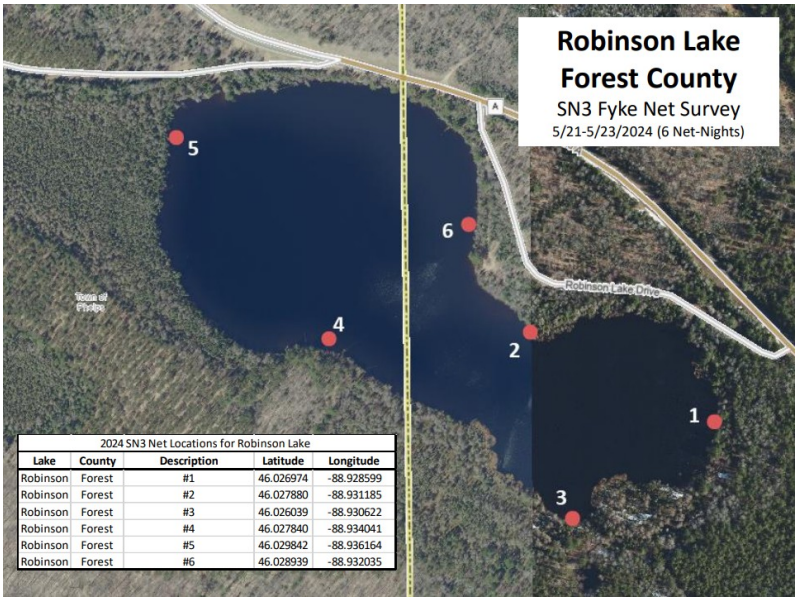
Mean length at age is used to index growth. Structures are taken from a subsample of fish captured. These structures can be used to estimate the age of that particular fish. The mean length at each age is then used to characterize growth of the entire population.

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**	**RSD13**
Bluegill	58.0	97.7	70.4	23.9	1.7	0.0			
Black Crappie	7.8	97.8	95.7	95.7	57.4	31.9	23.4	2.1	0.0



2024 SN3 Net Locations for Robinson Lake

Lake	County	Description	Latitude	Longitude
Robinson	Forest	#1	46.026974	-88.928599
Robinson	Forest	#2	46.027880	-88.931185
Robinson	Forest	#3	46.026039	-88.930622
Robinson	Forest	#4	46.027840	-88.934041
Robinson	Forest	#5	46.029842	-88.936164
Robinson	Forest	#6	46.028939	-88.932035

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.

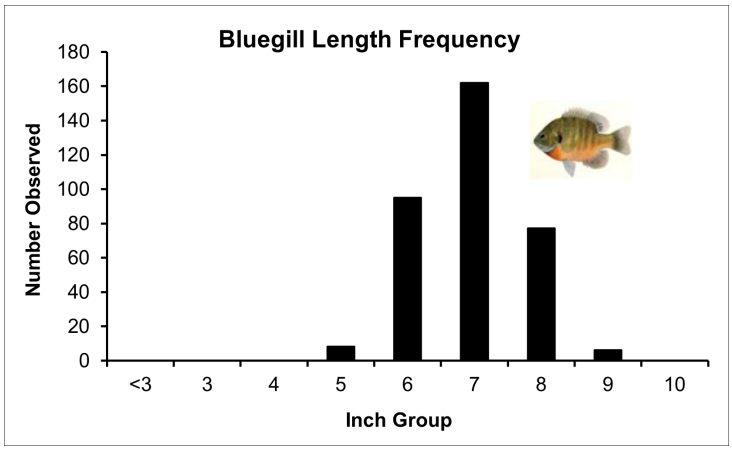
Photo Credit: Carl Sundberg

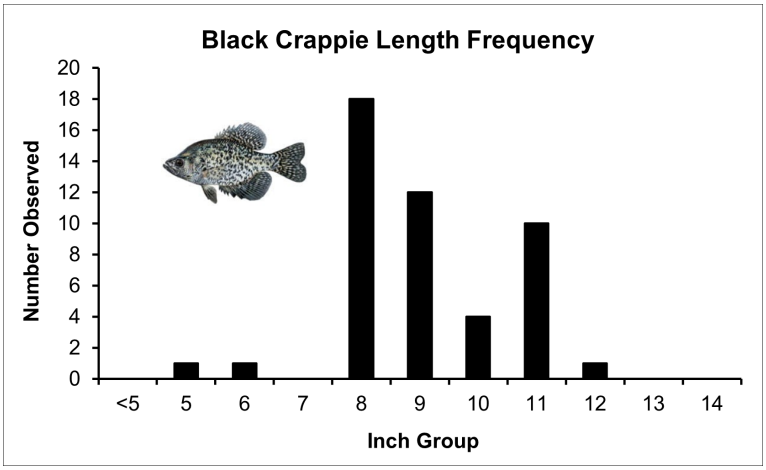
BLUEGILL

During this survey, a total of 348 bluegill were captured, which is a relative abundance of 58.0 bluegill/net-night. This puts the Robinson Lake bluegill population below the mean (65.6/net-night) but above the 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 7.44 inches, with approximately 97.7% of the fish being ≥ 6 inches and 23.9% ≥ 8 inches in length. These data show that the size structure of this bluegill population is well above the area average of 61.6% ≥ 6 inches and 9.4% ≥ 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 Robinson Lake, it has larger than expected size structure given the bluegill relative abundance.





BLACK CRAPPIE

A total of 47 black crappie were captured during this survey, giving them a relative abundance of 7.8 fish/net-night. Black crappie were not directly targeted in this survey and can be difficult to assess with fyke nets at this time. To properly assess abundance, an early spring survey would need to be conducted.

Black crappie size structure is high, with 95.7% of the catch being ≥ 8 inches and 31.9% ≥ 10 inches. This is well above the area average of 62.4% ≥ 8 inches and 19.9% ≥ 10 inches.

OTHER SPECIES

During this survey, two fish species were captured that were not detailed in this summary. The list of these species (with catch/net-night listed in parenthesis) is as follows: largemouth bass (0.5), and bullhead (specific species not specified, 1.3).

SURVEY NOTES

- The public launch to Robinson Lake provides adequate angler access.
- There are no stocking records for Robinson Lake.
- 2024 was the first time a panfish netting survey was conducted on Robinson Lake.
- The survey indicated a bluegill population that provides angling opportunity. Since abundance is about average, this size structure is higher than expected.
- Robinson Lake has a light history of fish surveys. Late spring electrofishing surveys were conducted in 2005 and 2008, and a fall electrofishing survey was conducted in 2003. These surveys showed that northern pike, pumpkinseed and yellow perch were present, none of which were caught in this survey. The 2024 bluegill abundance is higher than previous surveys.
- The current statewide regulations are appropriate for this water.
- Robinson Lake is on an 8 year sampling rotation for bass electrofishing surveys. The next electrofishing survey is planned for 2028.

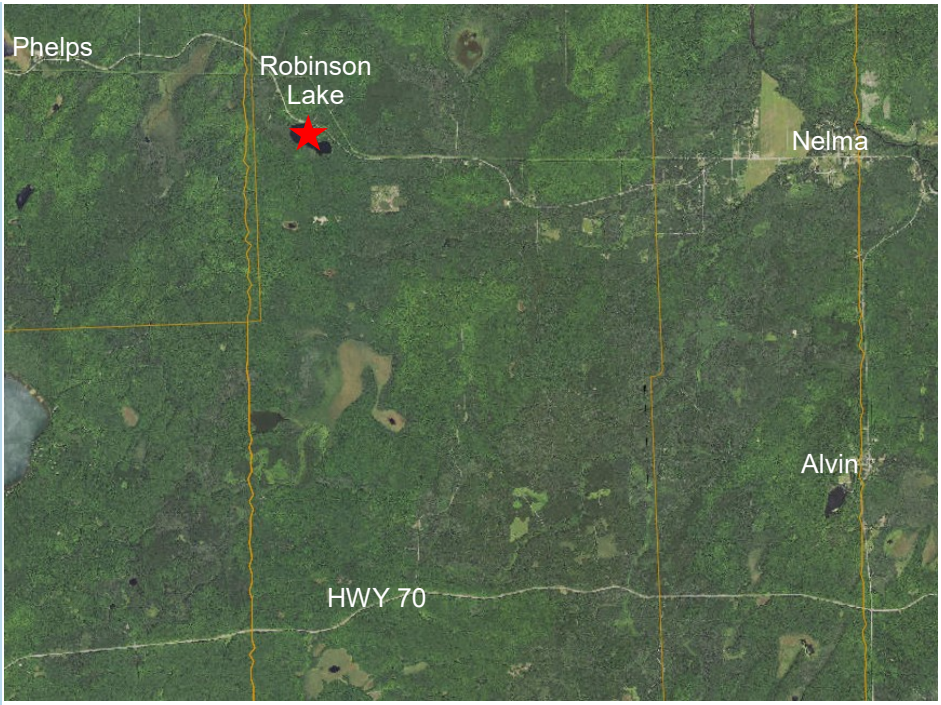


Photo: An ariel view of the area of Robinson Lake (indicated with a star).