WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2025 Panfish Survey Report
Ucil Lake, Oconto County
Waterbody Code 455400

Introduction And Objectives

In 2025, the Department of Natural Resources conducted a 2-night summer fyke netting survey of Ucil Lake. The primary objective of this survey was to characterize species composition, relative abundance, size structure and age and growth of panfish. The following report is a brief summary of the survey and future management recommendations for Ucil Lake. Prior to 2025, the most recent fisheries survey was a spring electrofishing survey conducted in June 2014.

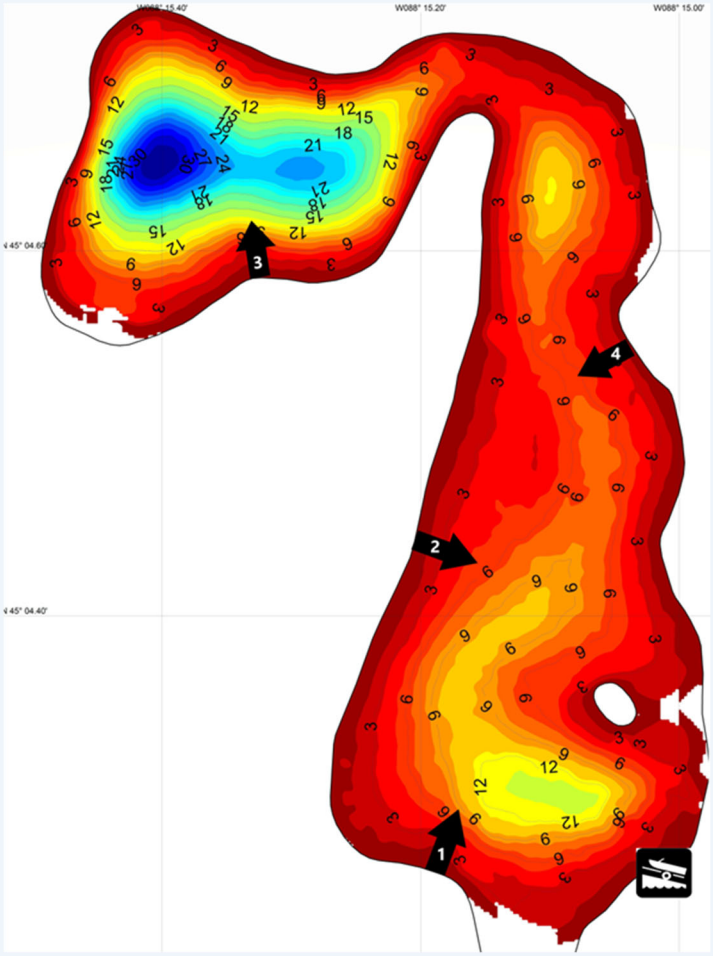
The littoral area is primarily muck, marl, and sand. Public access is provided by a boat landing that is owned by the Town of Bagley. The shoreline is moderately developed as homes and seasonal cottages but large stretches of natural shoreline exist. Ucil Lake is classified as a simple warm, clear hardwater drainage lake. As a local comparison, this is the same classification as Lake John and Crooked Lake in Oconto County.

Aquatic invasive species present in Ucil Lake and year first detected include Chinese mystery snail (2011), faucet snails (2018), Eurasian watermilfoil (2018) and hybrid watermilfoil (2018).

Periodic partial winterkills have been reported in Ucil Lake with the last documented winterkill occurring in 1986. No fish stocking has occurred since 1987.

A management plan for Ucil Lake and other lakes in Oconto County can be found at:

https://www.ocontocountywi.gov/754/Individual-County-Lake-Summary-Reports-S



Bathymetric map showing water depths of Ucil Lake, with fyke net locations indicated by arrow and number.

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Lake Information

Acres: 78
Max. Depth: 33 ft
Shoreline Miles:2.3
Public Access: 1 boat ramp owned by Town of Bagley
Lake Class: simple warm clear drainage lake

Regulations

General Inland Waters regulations for all species

Survey Method

- Ucil Lake was sampled according to summer netting III (SN3) DNR Fisheries monitoring protocols. The primary objective is to count and measure panfish but all species including any gamefish are also reported.
- Fyke nets were deployed for the SN3 survey. Age structures were collected from a subsample of gamefish and panfish.

Acknowledgements

The following DNR staff assisted in various aspects of the survey: Ronald Rhode, Jenna Brandl, and Tammie Paoli.

A "turtle friendly" fyke net, set just above the water level for the summer panfish survey in Ucil Lake. Photo credit: T. Paoli

2025 UCIL LAKE SURVEY INFORMATION						
Survey Dates	**Water Temperature (°F)**	**Target Species**	**Survey Type**	**Gear**	**Number of Nets**	**Effort**
06/23/2025 - 06/25/2025	79 - 80°F	Panfish	Summer Netting (SN3)	3' x 6' hoop fyke nets with 3/4" bar mesh	4	8 net nights

Metric Descriptions

- **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 netting surveys, we typically quantify CPUE by the number and size of fish per net night. For electrofishing, we quantify CPUE as the number caught per mile of water electrofished. CPUE indexes are compared to statewide data by percentiles and within lake trends. For example, if a CPUE is in the 90th percentile, it is higher than 90% of the other CPUEs in the state.
- **Proportional Stock Density (PSD) is an index used to describe the size structure of fish populations.** PSD 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.
- **Length frequency distribution 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 Length at Age** is an index used to assess fish growth. Calcified structures (e.g., otoliths, spines, or fin rays) are collected from fish of all sizes that are present in the sample. Mean lengths at ages are calculated as the average length of all fish of a given age.

SN2025 UCIL LAKE SURVEY CATCH DATA			
Species	**Number**	**Average Length (inch)**	**Length Range**
Bluegill	608	6.2	4.2 - 8.7
Pumpkinseed	75	6.1	4.3 - 7.9
Yellow Bullhead	37		
Rock Bass	18	6.3	4.5 - 9.0
Green Sunfish x Pumpkinseed Hybrid	13	6.8	4.3 - 8.8
Brown Bullhead	8		
Green Sunfish	7	5.6	5.3 - 6.0
Largemouth Bass	6	11.2	7.3 - 14.8
Northern Pike	4	18.3	14.0 - 26.0
Yellow Perch	2	8.4	8.1 - 8.6
Black Crappie	2	11.7	9.8 - 13.5
Snapping Turtle	10		
Painted Turtle	41		

Faucet snails, an invasive species, on a log in Ucil Lake. Photo credit: T. Paoli

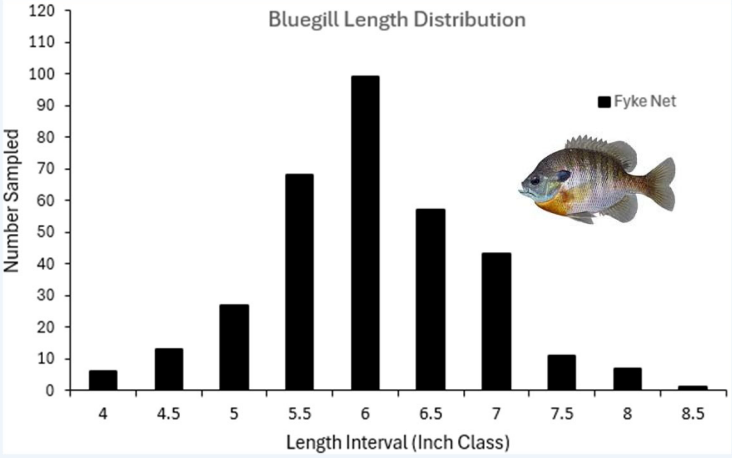
Net 3 set along natural shoreline in the western lobe of Ucil Lake. Photo credit: T. Paoli

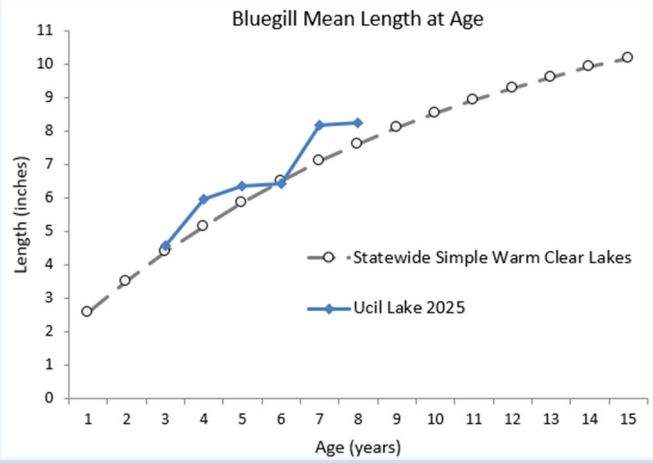
Natural shoreline in the southern lobe of Ucil Lake. Photo credit: T. Paoli

Bluegill

- CPUE of bluegill in 2025 was high at 76 per net night. As a comparison, bluegill CPUE in Crooked Lake in June 2025 was 31 per net night.
- Size structure of bluegill in 2025 was good with a PSD of 66 and average length of 6.2 inches.
- Average size of bluegill in the 2014 SE2 electrofishing survey was 5.3 inches, but this difference may be due to gear types and time of year rather than an actual change in population size structure. Average length is based on only 17 individuals in 2014.
- Sectioned dorsal spines were collected from 10 bluegill per inch length bin and used for age estimation in 2025.
- Growth rates of bluegill were at or above the statewide average for other lakes of the same classification.
- There is steady recruitment of bluegill based on multiple age classes represented in the sample, with age-5 bluegill dominating the catch.

2025 SIZE STRUCTURE METRICS								
Gear	Total Number Captured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock Number	Quality Number	PSD	CPUE
Fyke Netting (SN3)	608	6.2	4.2 - 8.7	3.0 and 6.0	332	218	66	76 per net night





Summary and Management Recommendations

- Ucil Lake has good population of bluegill with decent size structure.
- Pumpkinseed provide additional panfish angling opportunities, with some harvestable size fish in the population.
- The summer fyke netting survey is not intended to sample gamefish that are caught incidentally outside of spawning times. The most recent survey to assess bass was a 2014 SE2 electrofishing survey when largemouth bass CPUE was 30 per mile. This abundance is between the 25th and 50th percentile compared to other lakes of the same classification (simple, warm, clear). In that survey, largemouth bass ranged from 5.2 to 16.7 inches, and averaged 8.9 inches. An SE2 survey could be repeated in 2030 or later to confirm if bass abundance is still low.
- Stocking fish is not needed at this time, but may be beneficial in the event of a winterkill.

Left: An 8.2 inch bluegill estimated at age 7. Photo credit: T. Paoli

Right: A nice sample of panfish in the Ucil Lake survey. Photo credit: T. Paoli