



# WISCONSIN DEPARTMENT OF NATURAL RESOURCES

## Fisheries Information Sheet

**LAKE:** Lower Spring

**COUNTY:** Jefferson

**YEAR:** 2023

### Introduction

Lower Spring Lake is a 104-acre, shallow, eutrophic drainage lake located in southeastern Jefferson County (Figure 1). It lies within the town of Palmyra. The village of Palmyra is located along the western shoreline and includes a beach and Scuppernong River outlets of the lake. The lake is formed by an impoundment of the Scuppernong River which is the major inlet that flows from Upper Spring Lake southwesterly to the eastern shallow marsh portion of Lower Spring Lake. The Scuppernong River exits the lake and eventually flows into the Bark River upstream of Princes Point Wildlife Area. The lake has a maximum depth of 11 feet with an average depth of 4 feet. The bottom substrate is mainly muck.

Documented invasive species in Lower Spring Lake include common carp, banded mystery snail (*Viviparus georgianus*), curly-leaf pondweed (*Potamogeton crispus*), Eurasian water-milfoil (*Myriophyllum spicatum*), and purple loosestrife (*Lythrum salicaria*). The lake supports endangered fish species such as the state special concern lake chubsucker (*Erimyzon sucetta*). The state endangered slender madtom (*Noturus exilis*) has been sampled in the Scuppernong River upstream of the lake.

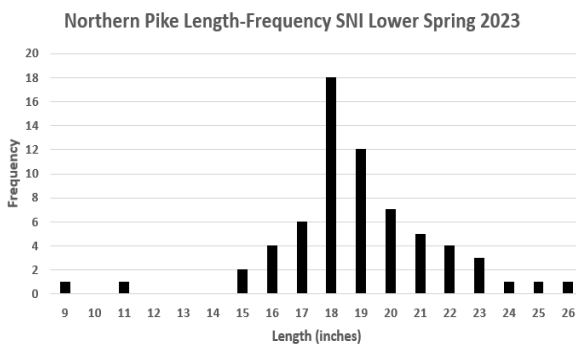
One measure of a lake's health is the trophic state, which relates to the amount of algae in the water. Lower Spring Lake's average summer trophic state for the last 5 years was 55 (Eutrophic) and was determined using chlorophyll data. For a shallow reservoir drainage lake, this is considered good.

There is one public boat launch on the lake. The Lower Spring Lake Public Access boat launch, owned and operated by the Department of Natural Resources (DNR) is located on Hwy 59 on the north side of the lake, just east of the village of Palmyra. Ample shore fishing opportunities exist along the northern shore off Hwy 59. The lake includes 3.1 miles of shoreline that is mostly wooded and wetland complex and the western portion is primarily residential. Adequate public access provides recreational opportunities for both anglers and recreational boaters. Recreational use is heavy year-round, especially during summer weekends and winter during safe ice conditions. Current fishing regulations follow the general statewide inland regulations (Table 1).

Lower Spring Lake was sampled with fyke nets set to sample spawning northern pike just after ice out according to DNR protocol for Spring Netting I (SNI). This was the

first SNI survey conducted on the lake. Four fyke nets were set on March 14, 2023, and fished for seven 7 days for a total of 28 net nights of effort. A recapture run during Spring Electrofishing I (SEI) was attempted on April 26, 2023, due to low numbers of recaptures sampled during SNI. A total of 2.0 miles of shoreline was sampled targeting only for northern pike.

## NORTHERN PIKE



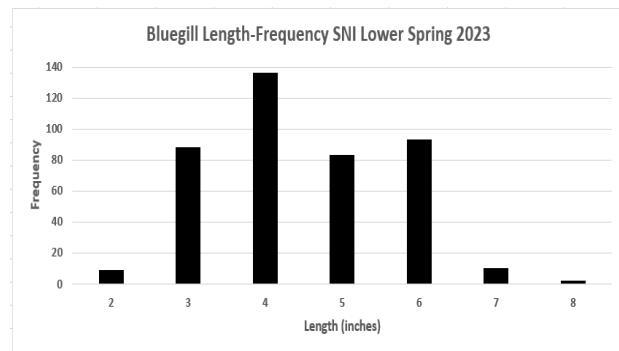
During SNI, 66 northern pike were sampled for a catch rate of 2.4 per net night. This is in the 59<sup>th</sup> percentile for similar lakes. Lengths ranged from 9.4 to 26.1 inches with an average length of 19.2 inches. During SEI, 18 northern pike were sampled for a catch rate of 9.0 per mile. Lengths ranged from 16.9 to 25.5 inches with an average length of 20.5 inches.

# Sampled $\geq$ 14 inches (stock size) = 64	
Quality Size $\geq$ 21 inches	15
Preferred Size $\geq$ 28 inches	0

## BLUEGILL



# Sampled $\geq$ 3 inches (stock size) = 412	
Quality Size $\geq$ 6 inches	105
Preferred Size $\geq$ 8 inches	2



## LARGEMOUTH BASS



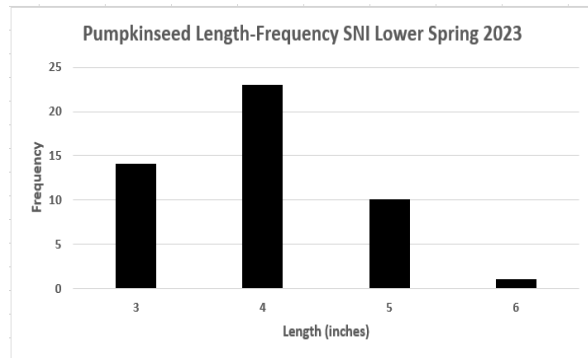
A total of 5 largemouth bass were sampled during SNI. Fyke nets, the primary gear type used in the 2023 survey do not adequately sample largemouth bass.

## PUMPKINSEED



During SNI, 48 pumpkinseed were sampled for a catch rate of 1.7 per net night. Lengths ranged from 3.1 to 6.0 inches and averaged 4.4 inches.

# Sampled $\geq$ 3 inches (stock size) = 48	
Quality Size $\geq$ 6 inches	1
Preferred Size $\geq$ 8 inches	0



## YELLOW PERCH



Five yellow perch were sampled during SNI for a catch rate of 0.18 per net night. This is in the 16<sup>th</sup> percentile for similar lakes. Lengths ranged from 4.9 to 5.6 inches with an average of 5.3 inches.

## OTHER SPECIES

Other species sampled during SNI on Lower Spring Lake included warmouth (*Lepomis gulosus*), black crappie (*Poxomis nigromaculatus*), hybrid pumpkinseed x bluegill, hybrid bluegill, hybrid warmouth, golden shiner (*Notemigonus crysoleucas*), lake chubsucker (*Erimizon sucetta*), yellow bullhead (*Ameiurus natalis*), and rock bass (*Ambloplites rupestris*).

## Summary

A total of 630 fish from 14 species were sampled during SNI on Lower Spring Lake. The shallow, mucky nature of the lake bottom made it difficult to effectively sample adult northern pike. Three northern pike were resampled during the SNI survey (4.5%), providing too few fish to calculate a population estimate. Fin structures (pelvic fins) were removed for age estimations on northern pike. Average length at age was similar to statewide averages but lower than South District average. One northern pike was sampled during SNI that was above the current minimum length limit of 26 inches (1.5%). During SEI, 18 northern pike were sampled and one fish was a recapture from SNI (5.6%), again too few fish were sampled to calculate a population estimate.

Figure 1. Map of Lower Spring Lake, Jefferson County, Wisconsin.

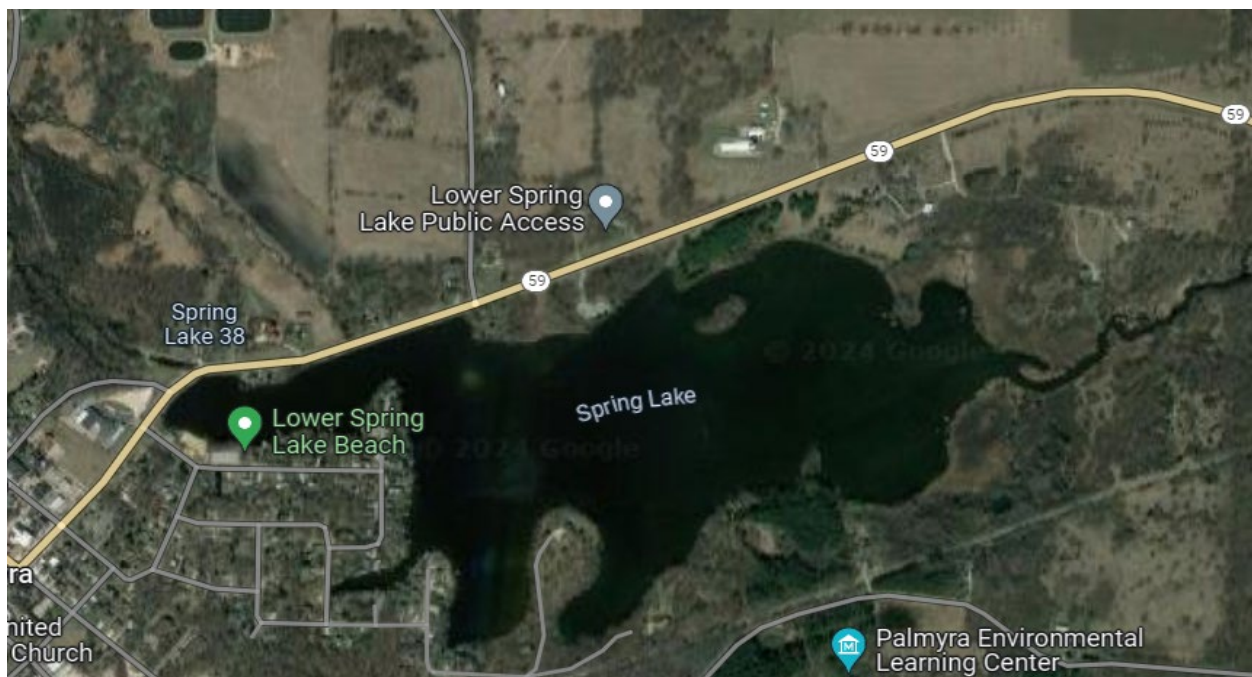


Table 1. General fishing regulations for Lower Spring Lake, Jefferson County, Wisconsin.

<b>SPECIES</b>	<b>SEASON DATES</b>	<b>DAILY BAG LIMIT</b>	<b>SIZE LIMIT</b>
Northern pike	First Saturday in May to the First Sunday in March	2	26 inches
Largemouth bass	First Saturday in May to First Sunday in March	5	14 inches
Panfish	Open Year Round	25	None

## **Acknowledgements**

For answers to questions about fisheries management activities on Lower Spring Lake, contact:

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