



## **Summary of Fishery Surveys Timms Lake, Price County, 2014**

Without an adequate place to launch our traditional sampling gear, WDNR's Fisheries Management Team from Park Falls completed a hook-and-line survey in 2014 to assess the status of largemouth bass and bluegills in Timms Lake, Price County. Quality, preferred, and memorable sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society. "Keeper size" is based on known angler behavior.

### **Survey Effort**

Beginning at 11:25 a.m. on August 19th, 2014, two experienced anglers fished from a canoe on Timms Lake for 3 hours and a total of 3.0 angler-hours focused primarily on largemouth bass and 3.0 angler-hours directed toward panfish. We used spinning tackle with rubber worms for largemouth bass and jigs tipped with real worms for panfish. We experienced overcast skies and passing showers until heavy rains ended our survey. Air temperature was 65 – 70°F. We took scales from 12 largemouth bass 8.0-13.4 inches for age estimation.

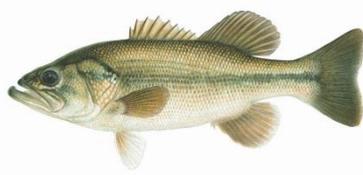
### **Habitat Characteristics**

Timms Lake is a 19-acre seepage lake located at the base of Timms Hill, Wisconsin's highest point 1,952 feet above sea level. The southern third of the lake lies within Timms Hill County Park in southeastern Price County. Average depth is 15 feet, and maximum depth is 38 feet. The water is dark stained, but low turbidity from suspended algae keeps it moderately clear (Secchi depth = 7 feet). Clear water often corresponds with low nutrient levels. The substrate is composed of 78% rock, 15% muck, 5% gravel, and 2% sand, supporting a low density of submergent and emergent vegetation. The shoreland vegetation is 20% tamarack-spruce bog and the rest is upland hardwood and pine forest. With only three established residences much of the shoreline retains its natural character. Still, submerged woody cover is scarce. An intermittent stream drains to Holmes Creek from the southeast shore. An unimproved footpath on the right-of-way of Ring School Road provides the only public access.

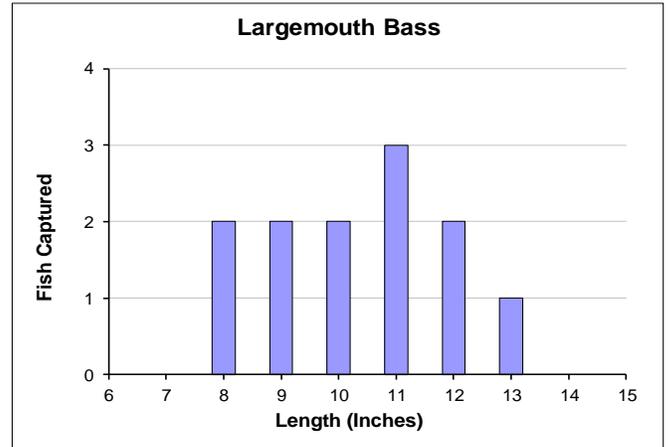
### **Summary of Results**

Though our samples were small, we can cautiously infer the status of largemouth bass and bluegill populations, based on what we know about habitat, water quality, growth rates, fish community interactions, and the results of our late spring 2011 electrofishing survey in Bass Lake (a 20-acre lake with similar characteristics on the opposite side of Timms Hill). We caught one yellow perch nine inches long and one black crappie 6.8 inches long.

## Largemouth Bass



Captured 4.0 Per Angling Hour	
Quality Size $\geq 12"$	25%
Legal Size $\geq 14"$	0%
Preferred Size $\geq 15"$	0%



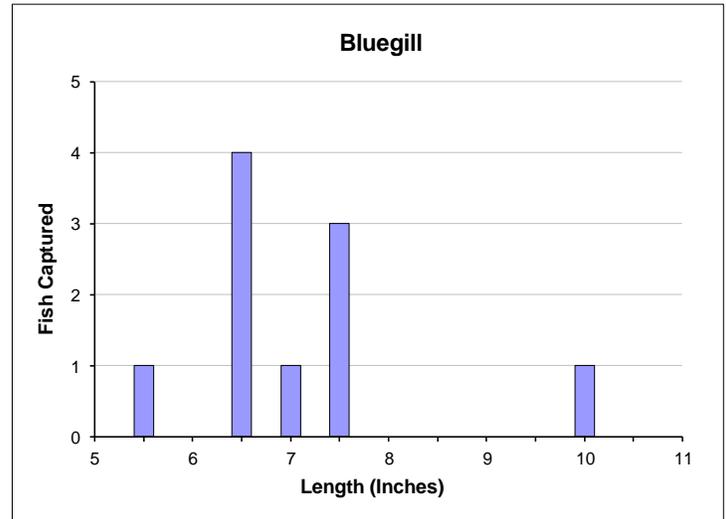
Length at age (from scales)	Age 3	Age 4	Age 5	Age 6
Average length (in)	8.8	10.9	11.9	12.9
Range	8.0 – 9.4	10.8 – 11.2	11.7 – 12.1	12.4 – 13.4
Count	4	3	3	2
Regional average length (in)	9.0	11.0	12.7	14.6

The high catch rate in our survey suggests high largemouth bass abundance. Our angling capture rate of largemouth bass was more than twice the 30-year average rate (1.8 black bass per hour) recorded by an experienced angler who logged 4,966 hours fishing for largemouth and smallmouth bass in 1985–2014. At high population density, slow-growing largemouth bass typically compete among themselves for food and few live long enough to attain legal and preferred sizes, especially in clear, infertile lakes like this one. We caught no largemouth bass longer than the 14-inch minimum size limit. Age analysis using scales revealed that the length of age-3 and age-4 largemouth bass in Timms Lake trended near the regional averages, but growth rate of older bass slowed substantially. Average length at ages 5 and 6 trailed the regional average by 0.8 and 1.7 inch, respectively. Slow growth can indirectly indicate high abundance and poor size structure in fish populations. The decent proportions of keeper and preferred-size bluegills probably result from many largemouth bass controlling bluegill density by predation in this small lake. With no record of fish stocking since 1966, natural reproduction supplies new recruits to the adult bass population. While launching the canoe, we saw three young-of-the-year largemouth near shore.

## Bluegill



Captured 3.33 Per Angling Hour	
Quality Size $\geq$ 6"	90%
Keeper Size $\geq$ 7"	50%
Preferred Size $\geq$ 8"	10%



Bluegill size structure appears to be benefiting from predation by largemouth bass. Unlike in nearby Bass Lake where bass are scarce and bluegills are small, predatory pressure from largemouth bass in Timms Lake seems adequate to control bluegill abundance, reduce competition, and allow some bluegills to reach preferred and memorable sizes. Even though our sample is small, the bluegill fishery appears to be meeting our generic size objective that 5 – 10% should be  $\geq$  8". We caught one 10-inch bluegill which swallowed the hook and died, so we took an otolith (ear bone) for aging and found the fish to be 11 years old (about the average age of a bluegill that size). Several small bluegills (3 – 5 inches long) were observed along the shorelines as well.

Survey data collected and analyzed by: Chad Leanna and Evan Sniadajewski-WDNR Fishery Team, Park Falls.

Written by: Chad Leanna— Fishery Technician, January 2015.

Reviewed by: Jeff Scheirer—Fishery Biologist, January 2015.

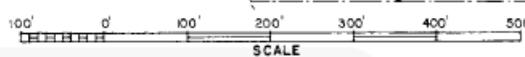
Approved for web posting by: Mike Vogelsang—acting Hayward Field Unit Supervisor, January 2015.



EQUIPMENT RECORDING SONAR MAPPED JULY 1966  
 MO. YR.

- TOPOGRAPHIC SYMBOLS**
- Brush
  - Partially wooded
  - Wooded
  - Cleared
  - Pastured
  - Agricultural
  - B.M. Bench Mark
  - Dwelling
  - Resort

- LAKE BOTTOM SYMBOLS**
- P. Peat
  - Mk. Muck
  - C. Clay
  - M. Marl
  - Sd. Sand
  - St. Silt
  - Gr. Gravel & Stumps & Snags
  - R. Rubble
  - Br. Bedrock
  - T. Submergent vegetation
  - Emergent vegetation
  - Flooding vegetation



Access Access with Parking Boat Livery  
 Field work by: C. Bosch, L. Sather, G. Winter Drawn by: C. Holt

**SPECIES OF FISH**

	Abundant	Common	Rare
Muskie			
N. Pike			
Walleye			
L. M. Bass	X		
S. M. Bass	X		
Perch	X		
Trout			X

AREA 19.8 ACRES  
 UNDER 3 FT. 6.2 %  
 OVER 20 FT. 26 %  
 VOLUME 284 ACRE FT.  
 TOTAL ALK. 13 P.P.M.  
 SHORELINE 8 MILES  
 MAX. DEPTH 38 FEET