

Wolf Lake, Fond du Lac County
WBIC # 60800
Electrofishing Survey
October 8, 2003
by
John E. Nelson

ABSTRACT

Wolf Lake was electrofished on the evening of October 8, 2003 to collect carp and largemouth bass for contaminant analysis and to gather baseline information. Largemouth bass were the most common species captured followed by bluegill and yellow perch. The bass were considered abundant with a catch rate of 215.6/mile of shoreline. Bluegill were also abundant and were caught at a rate of 67.2/mile. The bass had a fairly healthy size structure as did the bluegill. One 11.3" yellow perch was captured. No walleye fingerling were captured despite the stocking of fingerling in summer, 2003. Wolf lake should be the focus of a comprehensive survey to better measure the health and structure of the fish community.

INTRODUCTION

Wolf Lake is a 76 acre seepage lake in the Sheboygan River Basin. The lake drains to the Sheboygan River at the south end of the lake near the public access. It has a maximum depth of 47' and a mean depth of 19'. The shoreline is 2.3 miles long and much of the shore has been developed into residential use. The north end of the lake is primarily wetland vegetation. The water is generally clear and aquatic vegetation is abundant in the shallow portions of the lake. Eurasian water milfoil is present.

Wolf Lake is renowned in the area for large bluegills and an abundance of largemouth bass. Walleye were said to be common in the lake in the 1960's and may have been primarily from natural reproduction. The population in recent history has become sparse and stocking was reinitiated. Walleye stocking has been sporadic since 1975 though it has been stocked more often since 2000. The last stocking of fingerling took place in 2003. Local sports groups have supplemented the walleye stocking in recent years as well.

The purpose of this survey was to collect fish for contaminant analysis and to collect baseline data on the fishery.

METHODS

We electrofished the shoreline of Wolf Lake on the evening of October 8, 2003 using a large boom-shocker boat with two people dipping. We collected all fish and took five largemouth bass and five carp for contaminant samples. The remaining fish were measured and returned to the lake. We electrofished approximately 1.8 miles of shoreline. The north portion of the lake was too shallow to electrofish.

RESULTS AND DISCUSSION

Largemouth bass were the most common fish sampled. We caught 388 bass at a rate of 215.6/mile of shoreline (Table 1). Bluegill were the next most common fish and we caught 121 bluegill at a rate of 67.2/mile. Yellow perch were also relatively abundant. We caught 40 perch at a rate of 22.2/mile. Only three walleye were caught. We were able to net only 5 carp although more were observed but not able to be caught.

Table 1. Catch, average length and length range of fish captured while electrofishing on Wolf Lake, Fond du Lac County on October 8, 2003.

Species	Number Caught	Catch/Mile	Average Length	Length Range
Largemouth Bass	388	215.6	8.5"	2.7" – 17.7"
Bluegill	121	67.2	5.4"	2.6" – 9.5"
Yellow Perch	40	22.2	6.1"	3.8" – 11.3"
Pumpkinseed	6	3.3	5.1"	3.3" – 6.8"
Rock Bass	9	5.0	6.7"	4.9" – 10.5"
Walleye	3	1.7	15.5"	13.8" – 18.0"
Yellow Bullhead	11	6.1	10.7"	7.3" – 12.5"
White Sucker	13	7.2	9.9"	7.2" – 16.5"
Carp	5	2.8	16.5"	14.7" – 17.8"

The 388 largemouth bass caught during the survey averaged 8.5" long with a range of 2.7" to 17.7" long (Table 1). They had a proportional stock density (PSD) of 29.3% and an RSD_{15} of 2.1%. A strong length mode was evident in the 5" – 6" range that was likely represented by age 1+ fish (Figure 1) Another length mode was evident at the 11" length group. The large catch of bass was unusual for most lakes and was indicative of a very abundant population in the lake.

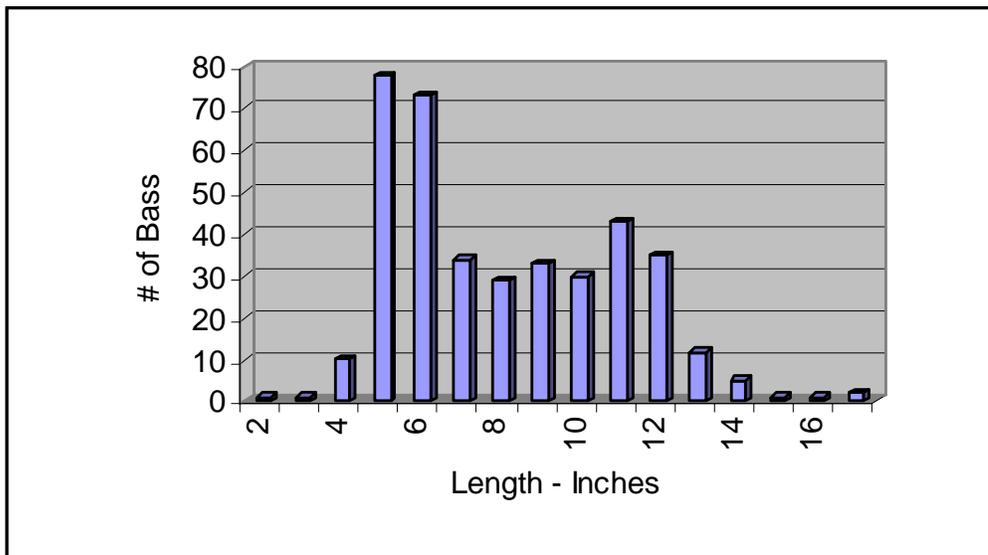


Figure 1. Length frequency distribution of largemouth bass for Wolf Lake, Fond du Lac County – October, 2003.

The 121 bluegills caught in the survey averaged 5.4" long and had a size range of 2.6" to 9.5" long (Table 1). They had a PSD of 33.0% and an RSD_8 of 3.5%. Length modes were evident at the 4.5" and 7.0" length modes (Figure 2). The size structure seemed normal for regional lakes.

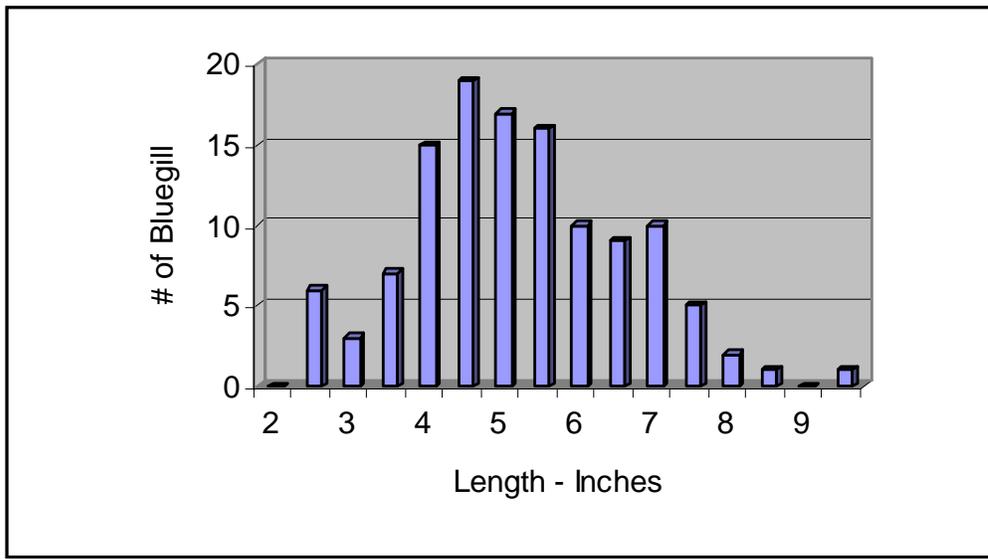


Figure 2. Length frequency distribution of bluegill from the October 8, 2003 sample of Wolf Lake, Fond du Lac County.

Too few fish of the other species were captured to draw conclusions regarding their populations. In general, there were no outstanding data that would indicate a problem with the populations at this time. We hoped to observe some walleye fingerling from the 2003 stocking but did not observe any fish of that expected size. One 11.3” yellow perch was caught.

MANAGEMENT RECOMMENDATIONS

The abundance or possible over-abundance of largemouth bass in the lake is a possible concern. While the bass no doubt help to keep the bluegill population under control, they probably feed heavily on stocked walleye fingerling and may prevent the establishment of a suitable walleye population in the lake. However, the bluegill fishery appears to be in good condition at this time according to the data from this survey and anecdotal reports from anglers. A comprehensive survey of the lake is needed to get more definitive data on the fish community. Length at age data would help to determine whether the bluegill population in particular is well balanced with predators in the lake.

NOTED AND APPROVED

E. Randy Schumacher, Fisheries Supervisor

Date