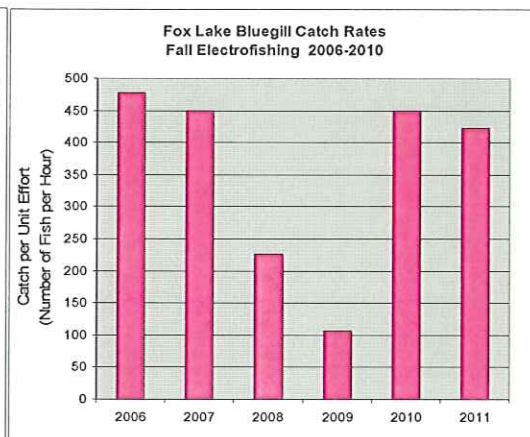
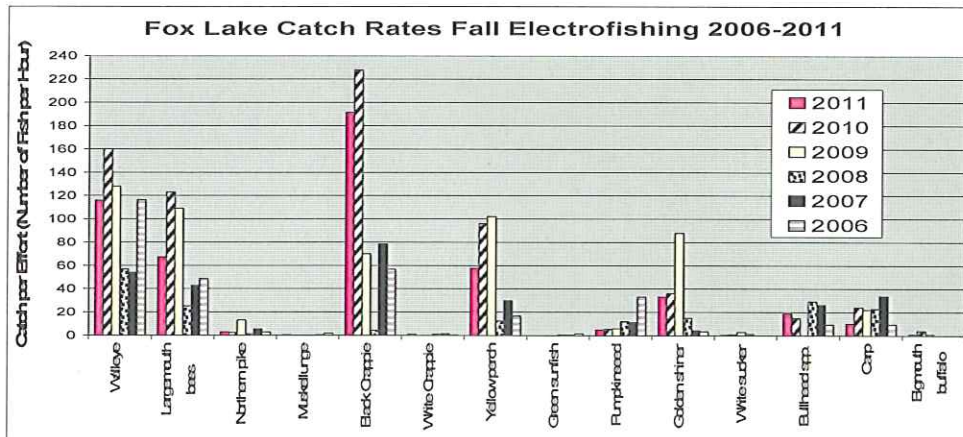


# Fox Lake Fall Electrofishing Summary Report – 2011

## Fall Electrofishing - Defined

Fall electrofishing was conducted on Fox Lake in Dodge County on October 4, 2011. Fall electrofishing is conducted using a large boom-shocker boat allowing for the collection of young-of-the-year (YOY) and adult bass and walleye that are often under-sampled by other gear types. In order to standardize fisheries data, total effort in the form of time spent shocking and/or miles of shoreline shocked is recorded and presented as catch rates or catch-per-unit effort (CPUE). Fall electrofishing sampling provides an indication of the health of the fishery through estimates of gamefish and panfish relative abundance (catch rate or catch per effort), gamefish population size-structure (length-frequencies), an index of growth and gamefish recruitment (young-of-the-year catch per effort). For this survey, the total effort expended was 2.08 hours covering 3.8 miles of shoreline. The following stations were sampled: 1.) Inlet of Cambria Creek south (25 minutes), 2.) North side of Chief Kuno Trail (20 minutes), 3.) South side of Chief Kuno Trail (20 minutes), 4.) South shore of The Jug to outlet (20 minutes), 5.) Elmwood Island (20 minutes), 6.) Fish 'n Fun tavern to Maple Point (20 minutes). Length measurements were taken from a subset of fish and all fish were returned to the lake. This report highlights the results of 2011 fall electrofishing with comparisons to previous fall surveys.

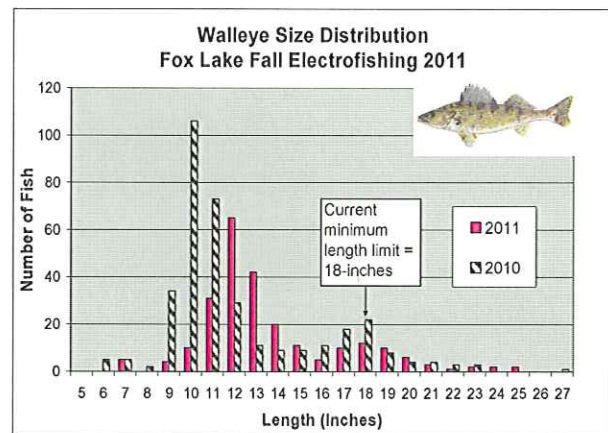
Compiled by: Laura Stremick-Thompson, DNR Fisheries Biologist, N7725 Hwy 28, Horicon WI 53032, 920.387.7876  
[Laura.StremickThompson@wisconsin.gov](mailto:Laura.StremickThompson@wisconsin.gov)



## Gamefish Summary

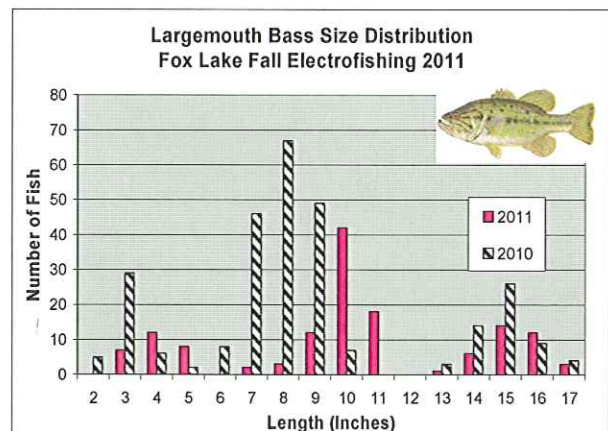
Walleye	2011	2010	2009	2008
Total Catch:	241	357	268	118
Catch Rate (fish per hour):	116	160	128	57
Length Range (inches):	7.0-25.6	6.1-27.2	5.5-25.5	3.8-27.0
Average Length (inches):	14.1	12.6	11.5	16.1

2011 walleye catch rates were 116/hour, compared to a high of 160/hour in 2010, 128/hour in 2009, 57/hour in 2008 and above the 10-year average of 77/hour. The number of young-of-the-year (YOY) was low at 4/hour, compared to 21/hour in 2010, an extremely high 79/hour in 2009 and 7/hour in 2008. 16% of the walleye sampled were over 18-inches (current legal harvestable size), compared to 13% in 2010 and 18% in 2009. In 2011, DNR stocked 47,250 small fingerling (1-inch) walleye into Fox Lake.



Largemouth bass	2011	2010	2009	2008
Total Catch:	140	275	227	52
Catch Rate (fish per hour):	67	123	109	25
Length Range (inches):	3.0-17.4	2.5-17.9	3.0-19.8	2.5-19.5
Average Length (inches):	10.6	9.1	7.6	12.1

2011 largemouth bass catch rates were 67/hour, compared to a high of 123/hour in 2010, 109/hour in 2009, 25/hour in 2008 and above the 10-year average of 46/hour. The majority of bass (59%) were 10 to 11.9-inches.



Northern pike	2011	2010	2009	2008
Total Catch:	6	5	28	3
Catch Rate (fish per hour):	3	2	13	1.4
Length Range (inches):	16.0-31.8	20.8-32.5	10.7-35.4	29.4-32.2
Average Length (inches):	25.4	26.6	24	30.8

Electrofishing is not an effective method for sampling northern pike, as pike population data is best obtained using fyke nets set during spring spawning. In 2011, DNR stocked 15,919 (3-inch) northern pike and the Fox Lake Property Owners stocked 350 (11-inch) pike into Fox Lake.

<b>Muskellunge</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	1	0	0	0
<b>Catch Rate (fish per hour):</b>	.48	0	0	0
<b>Length Range (inches):</b>	N/A	N/A	N/A	N/A
<b>Average Length (inches):</b>	12.1	N/A	N/A	N/A

Electrofishing is not an effective method for sampling muskellunge. DNR has not stocked muskellunge into Fox Lake since 2001. The Fox Lake Property Owners stocked 150 (12-inch) muskellunge in 2011.

## Panfish Summary

The current panfish community in Fox Lake is composed primarily of bluegill, black crappie and yellow perch. Smaller populations of white crappie, pumpkinseed and green sunfish are typically present.

<b>Bluegill</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	880	1002	223	470
<b>Catch Rate (fish per hour):</b>	423	449	107	226
<b>Length Range (inches):</b>	1.2-8.9	1.3-8.3	1.5-8.4	1.6-7.5
<b>Average Length (inches):</b>	4.7	4.1	3.6	5.1

2011 bluegill catch rates were 423/hour, above the 10-year average of 224/hour. 33% of the bluegill sampled in 2011 were over 6-inches in length. 2011 young of the year (YOY) numbers were good. The majority of fish sampled (54%) were 5- to 6.9 inches in length.

<b>Yellow Perch</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	120	213	269	26
<b>Catch Rate (fish per hour):</b>	58	96	102	13
<b>Length Range (inches):</b>	2.2-12.2	2.7-7.2	2.9-8.9	2.4-8.8
<b>Average Length (inches):</b>	5.4	4.6	3.9	4.4

2011 yellow perch catch rates were 58/hour, compared to 96/hour in 2010, 102/hour in 2009, 13/hour in 2008 and the 10-year average of 50/hour. In 2011, the Fox Lake Property Owners Group stocked 2,200 (4-inch) yellow perch into Fox Lake.

<b>Black crappie</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	398	509	145	9
<b>Catch Rate (fish per hour):</b>	191	228	70	4
<b>Length Range (inches):</b>	2.4-10.9	2.9-11.0	1.8-11.6	4.6-10.7
<b>Average Length (inches):</b>	6.8	5.9	5.0	6.1

2011 black crappie catch rates were 191/hour, compared to 228/hour in 2010, 70/hour in 2009, 4/hour in 2008 and the 10-year average of 87/hour. The majority of black crappie measured (74%) were 7- to 8.9 inches in length.

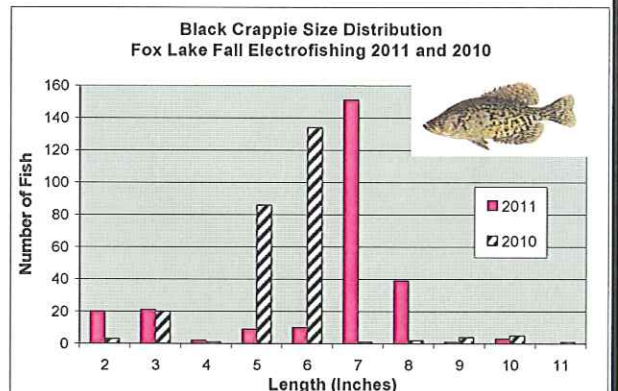
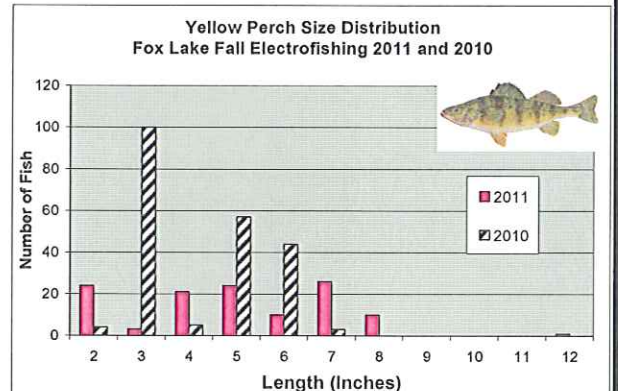
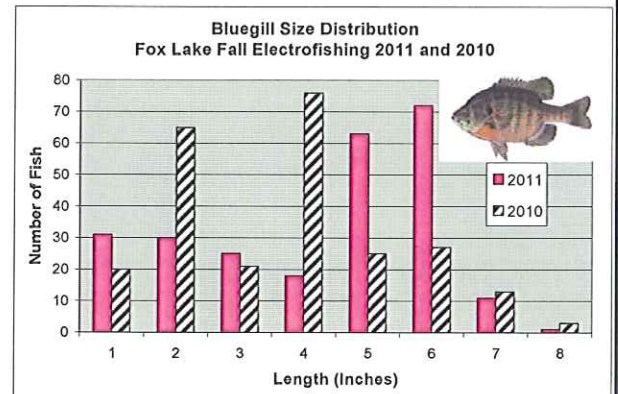
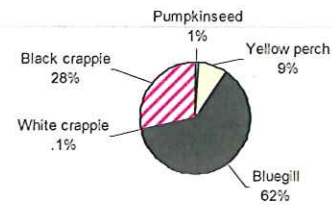
<b>White crappie</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	2	0	0	2
<b>Catch Rate (fish per hour):</b>	.96	0	0	.96
<b>Length Range (inches):</b>	7.5-12.3	N/A	N/A	2.5-9.4
<b>Average Length (inches):</b>	9.9	N/A	N/A	6.0

While once the most abundant crappie species in Fox Lake, white crappie have been nearly absent from fall electrofishing throughout the last decade. Their decline is of note given that white crappie prefer slightly turbid to turbid water and inhabit areas of sparse vegetation. Studies conducted on Fox Lake have shown white crappie to be a major predator of large Cladoceran zooplankton. Cladocera and other zooplankton feed on planktonic algae, therefore their populations play an important role in maintaining water clarity.

## Other Species

Other species sampled during 2011 fall electrofishing included: pumpkinseed, golden shiner, common carp, white sucker, bigmouth buffalo (4 fish) and brown and yellow bullhead. 2011 carp catch rates were 10/hour, compared to 24/hour in 2010, 22/hour in 2009 and 23/hour in 2008.

**Panfish Relative Abundance**  
Fox Lake Fall electrofishing 2011  
(number of fish sampled = 1410)



**Relative Abundance of Other Species**  
Fox Lake Fall Electrofishing 2011  
(number of fish sampled = 134)

