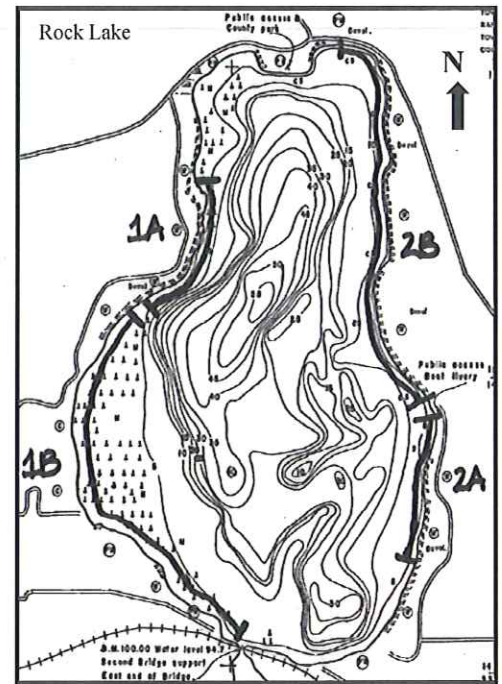


# Rock Lake Fall Electrofishing Summary Report – 2011

## Fall Electrofishing - Defined

Fall electrofishing was conducted on Rock Lake in Jefferson County on October 10, 2011. Fall electrofishing is conducted using a large boomshocker boat allowing for the collection of young-of-the-year (YOY) walleye and adult bass that are often undersampled 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 (size distributions), an index of growth and gamefish recruitment (young-of-the-year catch per effort). Sampling on Rock Lake was conducted at two gamefish stations, each 1.5 miles long (3 miles and 1.72 hours total effort) were sampled where only gamefish were collected and included stations 1B and 2B (see map). Two additional stations, each .5 miles long (1 mile and .55 hours total effort) were sampled where all fish species were collected and included stations 1A and 2A. Length measurements were taken from a subset of fish and all fish were returned to the lake. This summary report presents fall electrofishing data from 2011 with comparisons to 2010 and previous fall electrofishing surveys.

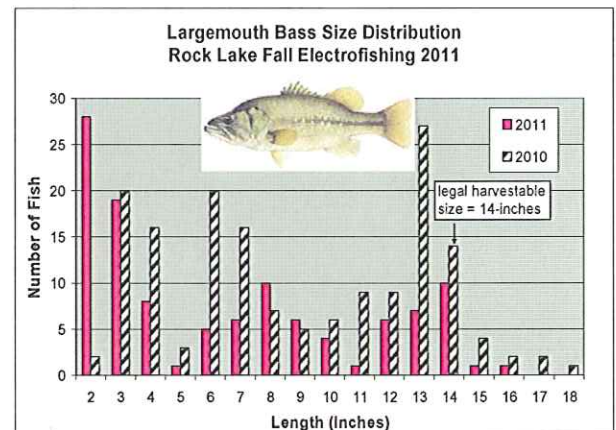


This report was compiled by: Laura Stremick-Thompson, WDNR Fisheries Biologist  
N7725 Hwy 28, Horicon, WI 53032  
(920) 387-7876 or [Laura.StremickThompson@wisconsin.gov](mailto:Laura.StremickThompson@wisconsin.gov)

## Gamefish Summary

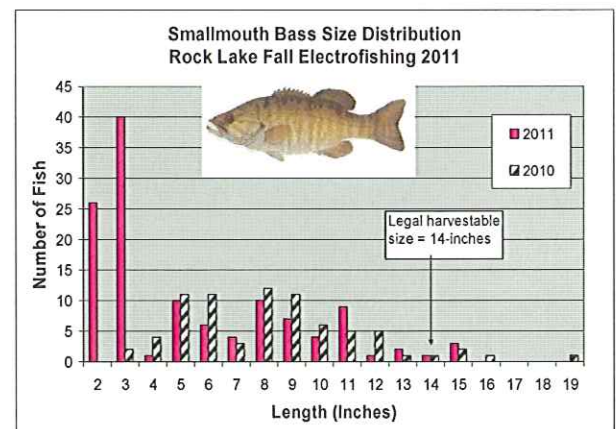
Largemouth bass	2011	2010	2009	2008
Total Catch:	113	163	44	84
Catch Rate (fish per hour):	50	51	15	31
Length Range (inches):	2.2-16.0	2.3-18.1	2.1-15.4	2.4-16.5
Average Length (inches):	7.0	9.2	7.9	9.6

2011 largemouth bass catch rates were 50/hour, compared to 51/hour in 2010 and comparable to the 10-year average of 50/hour. The number of largemouth bass over 14-inches (current legal harvestable size) was 11% in 2011, compared to 14% in 2010, 9% in 2009 and 7% in 2008. A large year-class of largemouth bass (49% of the fish sampled) was produced in 2011, indicating good natural reproduction. The largemouth bass population in Rock Lake is naturally reproducing and no stocking is currently conducted by WDNR.



Smallmouth bass	2011	2010	2009	2008
Total Catch:	124	77	96	83
Catch Rate (fish per hour):	55	24	32	30
Length Range (inches):	2.6-15.9	3.7-19.2	2.5-18.1	2.8-18.0
Average Length (inches):	5.8	8.7	9.7	9.8

2011 smallmouth bass catch rates were 55/hour, the highest since 2005 (50/hr) and 1998 (61/hr) and above the 10-year average of 30/hour. The number of smallmouth bass over 14-inches (current legal harvestable size) was 3% in 2011, compared to 7% in 2010, 18% in 2009 and 17% in 2008. A large year-class of smallmouth bass (53% of the fish sampled) was produced in 2011, indicating good natural reproduction. The smallmouth bass population in Rock Lake is naturally reproducing and no stocking is currently conducted by WDNR.



Walleye	2011	2010	2009	2008
Total Catch:	9	8	11	7
Catch Rate (fish per hour):	4	1	4	3
Length Range (inches):	6.7-14.4	12.3-23.5	16.1-25.5	13.0-24.0
Average Length (inches):	8.2	16.5	19.1	18.2



Overall walleye abundance was low with a total of 9 walleye (4/hour) sampled during 2011 fall electrofishing. Of the 9 fish sampled, 8 were young-of-the-year (YOY) walleye (under 10-inches). This trend is consistent with low YOY numbers in 2009 (0/hour), 2008 (0/hour) and 2007 (1/hour). In 2011, WDNR stocked 68,550 small fingerling walleye (average length 1-inch) into Rock Lake.

<b>Northern pike</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	14	21	21	3
<b>Catch Rate (fish per hour):</b>	6	7	7	1
<b>Length Range (inches):</b>	18.3-31.3	9.7-27.5	9.1-33.1	10.6-34.2
<b>Average Length (inches):</b>	22.5	21.1	18	20.9

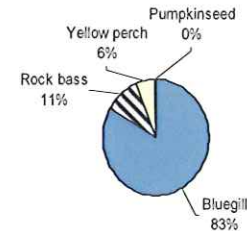


Catch rates for northern pike were 6/hour during 2011 fall electrofishing. Electrofishing is not an effective method for sampling northern pike, as pike population data is best obtained using fyke nets set during spring spawning. No northern pike stocking occurred on Rock Lake in 2011.

## Panfish Summary

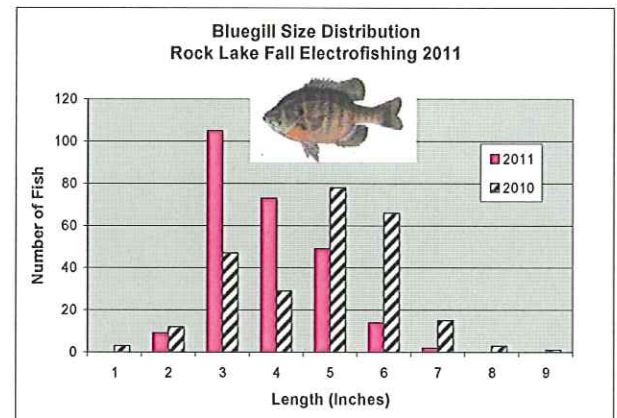
Rock Lake supports a diverse panfish community including: bluegill, yellow perch, rock bass, white bass, pumpkinseed, black crappie and green sunfish. Bluegill were the most abundant panfish species sampled in 2011 fall electrofishing, followed by rock bass and yellow perch. A small number of pumpkinseed (2 fish total, 4/hour) were also sampled.

**Panfish Relative Abundance**  
Rock Lake Fall Electrofishing 2011  
(Number of fish sampled = 438)



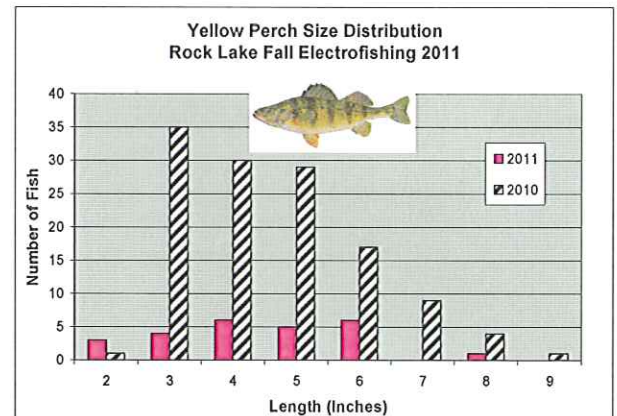
<b>Bluegill</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	365	1470	496	881
<b>Catch Rate (fish per hour):</b>	664	457	165	320
<b>Length Range (inches):</b>	2.5-7.7	1.6-9.8	2.0-9.1	2.2-8.9
<b>Average Length (inches):</b>	4.3	5.2	5.4	5.3

Bluegill catch rates were 664/hour, compared to 457/hour in 2010, 165/hour in 2009, 320/hour in 2008 and above the 10-year average of 307/hour. In 2011, 6% of the bluegill measured were greater than 6-inches in length, compared to 33% in 2010, 40% in 2009 and 31% in 2008. The majority of bluegill sampled in 2011 were between 3 and 4.9 inches in length.



<b>Yellow Perch</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	25	126	266	116
<b>Catch Rate (fish per hour):</b>	46	39	89	42
<b>Length Range (inches):</b>	2.8-8.8	2.7-9.9	2.1-8.4	2.3-8.6
<b>Average Length (inches):</b>	5.0	5.0	4.3	4.5

Yellow perch catch rates were 46/hour, compared to 39/hour in 2010, a high of 89/hour in 2009, 42/hour in 2008 and the 10-year average of 36/hour. The lower 2011 total catch is the result of a change to the 2011 sampling protocol and is not reflective of a drop in the yellow perch population. As with all fisheries data, catch rates (number of fish per hour) should be used for comparisons over time.



<b>Rock bass</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Catch:</b>	46	201	178	137
<b>Catch Rate (fish per hour):</b>	84	62	59	50
<b>Length Range (inches):</b>	3.4-8.9	2.6-11.1	1.7-10.7	2.9-10.8
<b>Average Length (inches):</b>	6.0	7.4	6.3	6.7

Rock bass catch rates were 84/hour, compared to 62/hour in 2010, 59/hour in 2009, 50/hour in 2008 and the 10-year average of 43/hour. Rock Lake supports a sizable, robust population of rock bass.

## Non-game Species

Rock Lake supports a diverse non-game fish community including: bowfin, grass pickerel, white sucker, brook silverside, golden, emerald, blacknose, and mimic shiners, bluntnose and fathead minnows, yellow, black and brown bullhead, longnose gar, central mudminnow, blackstripe topminnow, banded killifish, Johnny darter, Iowa darter and common carp. In addition, two Special Concern (SC) species, the lake chubsucker and least darter and one Threatened (T) species, the pugnose shiner, inhabit Rock Lake. The pugnose shiner (1 individual) was sampled during 2011 fall electrofishing and has been found in similar surveys conducted in 2003, 2004 and 2005. No lake chubsuckers were sampled in 2011 fall electrofishing, compared to thirteen (4/hour) in 2010. Longnose gar, bluntnose minnow, brook silverside and yellow bullhead were also sampled during 2011 fall electrofishing.