Treaty Fisheries Publication

January 2012
INTRODUCTION

The Wisconsin Department of Natural Resources regularly conducts netting and electrofishing surveys of area lakes and reservoirs to determine what species of fish are present, how many of each there are, and what is the health of these populations. Information is also needed to determine the impact sport anglers are having on fish populations. To gather this information we conduct creel surveys.

A creel survey is a management tool used to measure the fishing activities of the anglers on a body of water. The key word in the last sentence is SURVEY. We can not practically interview every angler (census) who fishes on a lake. Creel surveys are designed to have a creel survey clerk on a lake, working random shifts, 40 hours each week throughout the fishing season. Each month these shifts cover a sample of all the daylight hours. A computer program is then used to accurately calculate estimates of all angler activity. This data is summarized by month using information collected by the creel survey clerk.

Creel survey clerks travel around their assigned lakes using a boat or car to count and/or interview anglers. Typically only anglers that have completed their fishing trip are interviewed. We prefer not to disturb anglers while they are fishing.

You may have encountered one of the department's clerks on a recent fishing trip and were interviewed. It only takes a few moments of your time, but it helps us determine quite a lot about the fishery.

This creel survey report will provide you with four types of estimated information for this body of water:

1. Overall fishing pressure
2. Fishing effort directed at each species
3. Catch and harvest rates
4. Numbers of fish caught and harvested.

Also included in this report are physical information about the lake, detailed summaries, by species, of what anglers caught, and our results from the spring field work (netting and electrofishing).

Additional copies of this report and those covering other local lakes can be obtained from the Spooner DNR: Treaty Fisheries Biologist, WDNR Spooner Office, 810 West Maple Street. Spooner WI 54801 or by visiting the DNR website (www.dnr.wi.gov).

GENERAL LAKE INFORMATION

Location
Lake Chippewa (Chippewa Flowage) is located southeast of Hayward in central Sawyer County.

Physical Characteristics
Lake Chippewa (Chippewa Flowage) covers 15,300 acres, is fed by nine natural rivers, with 148 islands, and over 200 miles of shoreline. The lake has a maximum depth of 93 feet.

There are four major public boat landings, two on County Highway CC, one on County Highway B, and one on Dam Road.

Seasons Surveyed
The creel survey started on May 7, 2011 and ran through October 31, 2011.

Harvest Regulations
The following seasons, daily bag limits, and length limits were in place on this lake in 2011-2012:
<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Bag Limit</th>
<th>Min. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walleye</td>
<td>May 7-Nov 30</td>
<td>2*</td>
<td>None</td>
</tr>
<tr>
<td>Muskellunge</td>
<td>May 28-Nov 30</td>
<td>1</td>
<td>50&quot;</td>
</tr>
<tr>
<td>Northern Pike</td>
<td>May 7-Mar 4</td>
<td>5</td>
<td>None</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>June 18-Mar 4</td>
<td>5</td>
<td>None</td>
</tr>
<tr>
<td>Smallmouth Bass</td>
<td>June 18-Mar 4</td>
<td>5</td>
<td>14&quot;</td>
</tr>
<tr>
<td>Panfish</td>
<td>all year</td>
<td>25</td>
<td>None</td>
</tr>
</tbody>
</table>

* The statewide bag limit for walleye is 5, but due to tribal declarations it was reduced on this lake.

SPECIES CATCH AND HARVEST INFORMATION

Angling information is summarized on a single page for each species. If a page for a particular species is not present in this section it is because no one reported fishing for that species and/or none were caught. Each species page has up to five graphs covering the following:

1. **ESTIMATED FISHING EFFORT**
   
   Total calculated number of hours during each month that anglers spent fishing for this species.

2. **ESTIMATED ANGLER CATCH AND HARVEST RATES**
   
   Calculated number of hours it takes an angler to catch or harvest a fish of this species. Only information from anglers who were specifically targeting this species is reported here.

3. **ESTIMATED ANGLER CATCH AND HARVEST**
   
   Calculated number of fish of this species caught or harvested by all anglers.

4. **LENGTH DISTRIBUTION OF HARVESTED FISH MEASURED BY THE CREEL CLERK**
   
   All fish of this species measured by the clerk during the entire creel survey season.

5. **AVERAGE LENGTH AND LARGEST FISH HARVESTED**
   
   Average length and the largest fish of this species harvested each month. Only those fish measured by the creel survey clerk are reported here.

ACKNOWLEDGEMENTS

This survey could not have been completed if not for the efforts of the technical staff of the Treaty Fisheries Unit. Todd Brecka delivered and maintained all equipment. Mike Keniry, Robert “Mac” McInroy and Jill Sunderland trained and provided support for the creel clerks. Misty Rood, Robert “Mac” McInroy and Jill Sunderland were responsible for all aspects of data entry and quality control.

Marty Kangas, Abby Medis, Matt Kufahl and Donna Sorensen were the survey clerks on the lake for the entire survey period. Robert “Mac” McInroy and Don “Jake” Jacobson provided fill in when clerks needed a well deserved day off. They endured mosquitos, rain, snow and bitter cold to collect the angler interview information that makes this report possible.

The Department would like to thank The Landing – LCO Resort for generously allowed the department to keep 2 boats at
their property during this survey.

We would also like to thank all the anglers who took the time to offer information about their fishing trip to the survey clerks. Without your cooperation this survey would not have been possible.
ESTIMATED ANGLER CATCH AND HARVEST RATES

MONTH     | MAY | JUN. | JUL. | AUG. | SEP. | OCT.
-------------------------------
HOURS PER FISH CATCH
---
11.1 | 19.1 | 20.0 | 25.0 | 16.3 | 12.5 | 25.9

HOURS PER FISH HARVEST
---
5.7 | 10.0 | 11.1 | 11.1 | 14.3 | 16.7 | 12.5

ESTIMATED ANGLER CATCH AND HARVEST

MONTH     | MAY | JUN. | JUL. | AUG. | SEP. | OCT.
-------------------------------
NUMBER OF FISH CATCH
---
2839 | 2200 | 1113 | 616 | 787 | 1947 | 1001

NUMBER OF FISH HARVEST
---
4843 | 3466 | 2000 | 3000 | 4000 | 5000 | 6000

LENGTH DISTRIBUTION OF FISH MEASURED BY THE CREEL CLERK

MONTH     | MAY | JUN. | JUL. | AUG. | SEP. | OCT.
-------------------------------
NUMBER OF FISH
---
7 | 8 | 11 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30

INCHES
---
0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50

AVERAGE LENGTH AND LARGEST FISH HARVESTED

MONTH     | MAY | JUN. | JUL. | AUG. | SEP. | OCT.
-------------------------------
INCHES
---
15.6 | 24.8 | 19.8 | 21.5 | 16.1 | 14.8 | 18.5 | 22.4

WALLEYE

ESTIMATED FISHING EFFORT

MONTH     | MAY | JUN. | JUL. | AUG. | SEP. | OCT.
-------------------------------
ANGLING HOURS
---
31970 | 19813 | 16154 | 8413 | 6670 | 5772
ESTIMATED ANGLER CATCH AND HARVEST RATES

ESTIMATED FISHING EFFORT

ESTIMATED ANGLER CATCH AND HARVEST

LENGTH DISTRIBUTION OF FISH MEASURED BY THE CREEL CLERK

AVERAGE LENGTH AND LARGEST FISH HARVESTED

NORTHERN PIKE
ESTIMATED ANGLER CATCH AND HARVEST RATES

MONTH
MAY JUN. JUL. AUG. SEP. OCT.

HOURS PER FISH

CATCH

HARVEST

ESTIMATED ANGLER CATCH AND HARVEST

MONTH
MAY JUN. JUL. AUG. SEP. OCT.

NUMBER OF FISH

AVERAGE LENGTH AND LARGEST FISH HARVESTED

MONTH
MAY JUN. JUL. AUG. SEP. OCT.

INCHES

ESTIMATED FISHING EFFORT

MONTH
MAY JUN. JUL. AUG. SEP. OCT.

ANGLING HOURS

LENGTH DISTRIBUTION OF FISH MEASURED BY THE CREEL CLERK

NUMBER OF FISH

INCHES

MUSKELLUNGE

AVERAGE LENGTH AND LARGEST FISH HARVESTED

MONTH
MAY JUN. JUL. AUG. SEP. OCT.

INCHES

ESTIMATED ANGLER CATCH AND HARVEST
ESTIMATED ANGLER CATCH AND HARVEST RATES

HOURS PER FISH

MAY JUN. JUL. AUG. SEP. OCT.

ESTIMATED FISHING EFFORT

MAY JUN. JUL. AUG. SEP. OCT.

LENGTH DISTRIBUTION OF FISH MEASURED BY THE CREEL CLERK

NUMBER OF FISH

INCHES

AVERAGE LENGTH AND LARGEST FISH HARVESTED

INCHES

MAY JUN. JUL. AUG. SEP. OCT.

SMALLMOUTH BASS
This graph illustrates the percentage of time that anglers spent fishing for each species during the open water creel survey. The percentages are based on the species of fish anglers told the clerk they were fishing for, not what they actually caught. If a particular species is not present in the graph it is because no one reported they were fishing for that species.
Estimated angler fishing effort on Lake Chippewa (Chippewa Flowage) for each month surveyed and by season.

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of Angler Party Interviews</th>
<th>Total Angler Hours</th>
<th>Total Angler Hours/Acre</th>
<th>Sawyer County Average Hours/Acre</th>
<th>Statewide Average Hours/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>168</td>
<td>92706</td>
<td>6.1</td>
<td>4.8</td>
<td>5.8</td>
</tr>
<tr>
<td>June</td>
<td>447</td>
<td>119828</td>
<td>7.8</td>
<td>6.4</td>
<td>6.1</td>
</tr>
<tr>
<td>July</td>
<td>365</td>
<td>90375</td>
<td>5.9</td>
<td>6.0</td>
<td>6.4</td>
</tr>
<tr>
<td>August</td>
<td>288</td>
<td>75073</td>
<td>4.9</td>
<td>5.3</td>
<td>5.4</td>
</tr>
<tr>
<td>September</td>
<td>215</td>
<td>61819</td>
<td>4.0</td>
<td>4.5</td>
<td>3.8</td>
</tr>
<tr>
<td>October</td>
<td>251</td>
<td>36336</td>
<td>2.4</td>
<td>2.2</td>
<td>1.6</td>
</tr>
<tr>
<td>*Summer Total</td>
<td>1734</td>
<td>476137</td>
<td>31.1</td>
<td>29.1</td>
<td>29.1</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1734</td>
<td>476137</td>
<td>31.1</td>
<td>29.1</td>
<td>29.1</td>
</tr>
</tbody>
</table>

**"Summer" is May-October; "Winter" is December-March
**Too few lakes have been surveyed in March to give a meaningful statewide average.

**Number of Angler Party Interviews** is the number of groups of anglers interviewed by the creel clerk. A party is considered the members of a group who fish together in the same boat, ice shanty, or from shore. The clerk fills out one interview form for each group of anglers. The number of individual anglers actually contacted by the clerk is usually much greater than the number of groups listed in this table since most groups consist of more than one angler.

**Total Angler Hours** is the estimated total number of hours that anglers spent fishing on this lake during each month surveyed.

**Total Angler Hours/Acre** is the total angler hours divided by the area of the lake in acres. This is useful if you wish to compare effort on this lake to others.

**County Average Hours/Acre** is the average angler effort in hours per acre for county lakes that have been surveyed since 1990. This value can be useful in comparisons as well.

**Statewide Average Hours/Acre** is the average angler effort in hours per acre for inland lakes in the state surveyed between 1990 and 1995. This value can be used to compare this lake to other lakes statewide.
CREEL SURVEY HISTORY/SYNOPSIS  
LAKE CHIPPEWA (CHIPPEWA FLOWAGE), SAWYER COUNTY

**CREEL YEAR: 2011**

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>DIRECTED EFFORT (Hours)</th>
<th>PERCENT OF TOTAL</th>
<th>TOTAL CATCH</th>
<th>SPECIFIC CATCH RATE (Hrs/Fish)</th>
<th>TOTAL HARVEST</th>
<th>SPECIFIC HARVEST RATE (Hrs/Fish)</th>
<th>MEAN LENGTH OF HARVESTED FISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walleye</td>
<td>88392</td>
<td>12.44%</td>
<td>12398</td>
<td>8.3</td>
<td>7456</td>
<td>14.3</td>
<td>14.9</td>
</tr>
<tr>
<td>Northern Pike</td>
<td>44028</td>
<td>6.20%</td>
<td>32427</td>
<td>3.6</td>
<td>4634</td>
<td>16.7</td>
<td>22.1</td>
</tr>
<tr>
<td>Muskegline</td>
<td>92367</td>
<td>13.00%</td>
<td>1707</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Smallmouth Bass</td>
<td>47691</td>
<td>6.71%</td>
<td>27123</td>
<td>3.3</td>
<td>788</td>
<td>100.0</td>
<td>15.1</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>57683</td>
<td>8.12%</td>
<td>50175</td>
<td>2.2</td>
<td>3670</td>
<td>20.0</td>
<td>13.1</td>
</tr>
<tr>
<td>Bluegill</td>
<td>161336</td>
<td>22.71%</td>
<td>738843</td>
<td>0.2</td>
<td>197378</td>
<td>0.9</td>
<td>7.5</td>
</tr>
<tr>
<td>Pumpkinseed</td>
<td>17296</td>
<td>2.43%</td>
<td>14121</td>
<td>2.2</td>
<td>3357</td>
<td>11.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Black Crappie</td>
<td>186484</td>
<td>26.25%</td>
<td>296478</td>
<td>0.7</td>
<td>156134</td>
<td>1.3</td>
<td>9.7</td>
</tr>
<tr>
<td>Yellow Perch</td>
<td>15187</td>
<td>2.14%</td>
<td>52995</td>
<td>1.4</td>
<td>10747</td>
<td>5.3</td>
<td>8.8</td>
</tr>
</tbody>
</table>

**CREEL YEAR: 1999**

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>DIRECTED EFFORT (Hours)</th>
<th>PERCENT OF TOTAL</th>
<th>TOTAL CATCH</th>
<th>SPECIFIC CATCH RATE (Hrs/Fish)</th>
<th>TOTAL HARVEST</th>
<th>SPECIFIC HARVEST RATE (Hrs/Fish)</th>
<th>MEAN LENGTH OF HARVESTED FISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walleye</td>
<td>239279</td>
<td>37.33%</td>
<td>109511</td>
<td>2.3</td>
<td>36002</td>
<td>7.0</td>
<td>13.5</td>
</tr>
<tr>
<td>Northern Pike</td>
<td>47652</td>
<td>7.43%</td>
<td>51871</td>
<td>3.0</td>
<td>7376</td>
<td>12.0</td>
<td>20.4</td>
</tr>
<tr>
<td>Muskegline</td>
<td>150388</td>
<td>23.46%</td>
<td>2913</td>
<td>65.8</td>
<td>38</td>
<td>333.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Smallmouth Bass</td>
<td>23864</td>
<td>3.72%</td>
<td>23906</td>
<td>2.0</td>
<td>724</td>
<td>48.3</td>
<td>15.0</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>11212</td>
<td>1.75%</td>
<td>4661</td>
<td>90.1</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Bluegill</td>
<td>45389</td>
<td>7.08%</td>
<td>70782</td>
<td>0.8</td>
<td>19788</td>
<td>2.7</td>
<td>7.1</td>
</tr>
<tr>
<td>Black Crappie</td>
<td>94127</td>
<td>14.68%</td>
<td>85009</td>
<td>1.1</td>
<td>46180</td>
<td>2.1</td>
<td>10.1</td>
</tr>
<tr>
<td>Yellow Perch</td>
<td>28063</td>
<td>4.38%</td>
<td>37944</td>
<td>1.6</td>
<td>10155</td>
<td>5.6</td>
<td>9.0</td>
</tr>
</tbody>
</table>
The Department of Natural Resources conducted a fisheries assessment of L Chippewa (Chippewa Flowage), Sawyer County, from April 21, 2011 to April 29, 2011.

Lake Chippewa (Chippewa Flowage) is an impoundment in the Chippewa Basin. The walleye fishery is supported primarily through natural reproduction. The population estimate for adult walleye is comparable to lakes with similar characteristics.

<table>
<thead>
<tr>
<th>Species</th>
<th>Total Captured</th>
<th>Avg. Length (in.)</th>
<th>Length Range (in.)</th>
<th>% &gt;15&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walleye</td>
<td>10,487</td>
<td>15.4</td>
<td>9-30</td>
<td>56%</td>
</tr>
</tbody>
</table>

Other Species
Some of the other species observed during this sampling but not included in this report were black bullhead, black crappie, bluegill, burbot, largemouth bass, muskellunge, northern pike, pumpkinseed, rock bass, smallmouth bass, warmouth, white sucker, and yellow bullhead.

We are also conducting a creel (angler harvest) survey on L Chippewa (Chippewa Flowage) this year. Creel clerks Marty Kangas/Matt Kufahl/Donna Sorensen/Abby Medis will count and interview anglers and examine their catch throughout the fishing season.

Stocking History

<table>
<thead>
<tr>
<th>Year</th>
<th>Species</th>
<th>Number Fish Stocked</th>
<th>Avg Fish Length (IN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>MUSKELLUNGE</td>
<td>25,000</td>
<td>1</td>
</tr>
<tr>
<td>2000</td>
<td>WALLEYE</td>
<td>75,000</td>
<td>1</td>
</tr>
<tr>
<td>2000</td>
<td>MUSKELLUNGE</td>
<td>1,250</td>
<td>12</td>
</tr>
<tr>
<td>2000</td>
<td>MUSKELLUNGE</td>
<td>1,014</td>
<td>11</td>
</tr>
<tr>
<td>2000</td>
<td>MUSKELLUNGE</td>
<td>236</td>
<td>13</td>
</tr>
<tr>
<td>2001</td>
<td>MUSKELLUNGE</td>
<td>6,559</td>
<td>10</td>
</tr>
<tr>
<td>2001</td>
<td>MUSKELLUNGE</td>
<td>2,091</td>
<td>11</td>
</tr>
<tr>
<td>2003</td>
<td>MUSKELLUNGE</td>
<td>2,675</td>
<td>11</td>
</tr>
<tr>
<td>2003</td>
<td>MUSKELLUNGE</td>
<td>175</td>
<td>12</td>
</tr>
<tr>
<td>2005</td>
<td>MUSKELLUNGE</td>
<td>1,885</td>
<td>12</td>
</tr>
<tr>
<td>2007</td>
<td>MUSKELLUNGE</td>
<td>1,907</td>
<td>12</td>
</tr>
<tr>
<td>2008</td>
<td>WALLEYE</td>
<td>7,684</td>
<td>7</td>
</tr>
<tr>
<td>2009</td>
<td>WALLEYE</td>
<td>4,372</td>
<td>7</td>
</tr>
<tr>
<td>2009</td>
<td>MUSKELLUNGE</td>
<td>2,496</td>
<td>11</td>
</tr>
<tr>
<td>2010</td>
<td>WALLEYE</td>
<td>20,230</td>
<td>2</td>
</tr>
<tr>
<td>2010</td>
<td>WALLEYE</td>
<td>20,230</td>
<td>2</td>
</tr>
</tbody>
</table>

General Fishing Regulations for L Chippewa (Chippewa Flowage), Sawyer County, 2011

<table>
<thead>
<tr>
<th>FISH SPECIES</th>
<th>OPEN SEASON</th>
<th>DAILY LIMIT</th>
<th>MINIMUM LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walleye</td>
<td>May 07-November 30</td>
<td>2</td>
<td>NO MINIMUM</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>June 18-March 04</td>
<td>5</td>
<td>NO MINIMUM</td>
</tr>
<tr>
<td>Smallmouth Bass</td>
<td>June 18-March 04</td>
<td>5</td>
<td>14&quot; MINIMUM</td>
</tr>
<tr>
<td>Muskie</td>
<td>May 28-November 30</td>
<td>1</td>
<td>50&quot; MINIMUM</td>
</tr>
<tr>
<td>Northern Pike</td>
<td>May 07-March 04</td>
<td>5</td>
<td>NO MINIMUM</td>
</tr>
</tbody>
</table>

A brief summary of selected fishing regulations is included above. While the regulatory information provided was current at the time the surveys were conducted, it is not comprehensive and should not be used as a substitute for the current fishing regulation pamphlet. You may obtain a copy of current fishing regulations when you purchase your fishing license, or download a copy from our web site at:

http://dnr.wi.gov/fish/regulations/

This report is interim only; data and findings should not be considered final. Results of creel surveys should be available by June of the year following the survey. If you are interested in a summary of the creel survey or want an update on this year’s fyke netting and electrofishing survey results contact:

Michael Keniry, Treaty Fisheries Supervisor
Wisconsin Department of Natural Resources
2501 Golf Course Road
Ashland WI 54806
(715) 685-2927
Email: michael.keniry@wisconsin.gov

For answers to questions about fisheries management activities and plans for L Chippewa (Chippewa Flowage), Sawyer County contact:

David Neuswanger, Fisheries Team Supervisor
Wisconsin Department of Natural Resources
10220 N State Highway 27S
Hayward WI 54843
(715) 634-9658 Ext.3521
Email: david.neuswanger@wisconsin.gov

Reports from other northern Wisconsin fisheries surveys can be found at: http://dnr.wi.gov/fish/nor/northern.html