



Open-Water Spearing and Netting in the 1837 Minnesota Ceded Territory During the 2010-2011 Quota Year

by

Samuel B. Michaels
Fisheries Biologist

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Great Lakes Indian Fish & Wildlife Commission
Biological Services Division
P.O. Box 9
Odanah, WI 54861
(715) 682-6619
www.glifwc.org

ABSTRACT

The 2010-2011 quota-year was the thirteenth year that open-water spear and net fishing was conducted by eight Ojibwa Bands in the 1837 Minnesota ceded territory. A total of 623 band members participated in the fishery. Mille Lacs Lake was the only water body that received spearing or netting effort. A total of 64,679 fish weighing 140,562 pounds were harvested from Mille Lacs Lake. Walleye represented 88% of the total catch (56,835 fish; 124,072 pounds). Other species harvested included 2,200 northern pike (9,949 pounds), 1,527 yellow perch (1,186 pounds), 26 burbot (46 pounds), 2,086 sucker (3,169 pounds), and 1,515 tullibee (1,477 pounds). Most of the harvest occurred during spring, which included 56,809 walleye weighing 123,998 pounds and 2,179 northern pike weighing 9,808 pounds. During spring, more walleye were taken by gill-netting (54,479 fish; 118,648 pounds) than by spearing (2,330 fish; 5,350 pounds). Overall, average length was 18.1 inches for walleye and 25.7 inches for northern pike; average weight was 2.2 and 4.5 pounds, respectively. The tribal harvest of quota and cap regulated fish species was maintained within established limits through an intensive harvest management system that included daily permits, complete monitoring and daily reporting of the catch, and daily adjustments to quotas.

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INTRODUCTION

A U.S. Supreme Court decision issued on March 24, 1999 reaffirmed the rights of eight Chippewa bands to hunt, fish, and gather off-reservation in the Minnesota area reserved by a treaty with the United States government signed in 1837 (Figure 1). This report presents data for harvest and effort by Chippewa spearers and gill-netters in 1837 Minnesota ceded territory waters (Figure 2) during the 2010-2011 quota year which ran from April 1, 2010 through March 31, 2011. Mille Lacs Lake was the only water body with harvest and effort. Most of the harvest and effort in Mille Lacs Lake occurred during a 22 day period in the spring of 2010 (April 1-April 22) (Appendices A and B). Additional harvest occurred in Mille Lacs Lake on 10 days during the fall (October 29 - November 12), and three days during March 2011.

Eight Chippewa bands actively participated in the 2010-2011 fishery including two Minnesota bands (Mille Lacs and Fond du Lac) and six Wisconsin bands (Bad River, Lac Courte Oreilles, Lac du Flambeau, Mole Lake, Red Cliff, and St. Croix) (Figure 1). During the previous year, a fishery by eight Chippewa bands occurred in which 119,571 pounds of fish including 101,368 pounds of walleye were taken (Michaels 2014).

REGULATIONS

Harvest was strictly regulated and completely monitored under provisions of the “1837 Treaty Conservation Code for the Minnesota Ceded Territory” as adopted on January 27, 1997. This tribal code contains regulations that govern the use of spears and nets to harvest fish. The code was jointly developed with the State of Minnesota, approved by the federal court, and individually adopted by the Chippewa bands.

The exercise of treaty fishing rights in the 1837 Minnesota ceded territory was also subject to provisions of the “Treaty Fisheries Management Plan for the 1837 Minnesota Ceded Territory for the Years 2008-2012.” This harvest management plan established tribal walleye quotas for Mille Lacs Lake for a five year period, beginning with the 2008-2009 quota year. The tribal walleye quota started at 122,500 pounds for the 2008-2009 quota year under this plan, and would remain the same in subsequent fishing years unless any Band harvested 90% or more of its walleye quota in any year; consequently, a Band’s quota, as well as the total Band quota, would increase by 2,000 pounds in the following year until the total Band quota reached 142,500 pounds or 50% of the Agreed Harvest Target Level², whichever was less.

In addition to the Treaty Conservation Code and Treaty Fisheries Management Plan, a set of protocols were approved by the Minnesota Department of Natural Resources and the Chippewa bands. These protocols identified methods to calculate threshold and harvestable surplus levels for ceded territory waters, established procedures for information exchange, and provided an operational framework for the 1837 Minnesota Ceded Territory Fisheries Committee.

² The “Agreed Target Harvest Level” for a species is the total (treaty and non-treaty) target harvest determined by the Bands’ and State’s technical representatives on the basis of the methodology agreed to by the Bands and the State, provided the State actively manages non-treaty fisheries to stay within that level minus the treaty harvests provided.

PERMIT SYSTEM AND HARVEST MONITORING

A comprehensive harvest management system based upon daily permits, monitoring of the entire catch, daily reporting, and daily updates of quotas for quota or cap regulated species was used as follows.

Each night that a band intended to spear or net, a tribal representative contacted the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) office in Odanah, Wisconsin around noon to notify staff of the selected lakes, boat landings, and walleye bag limits for spearing. Quotas for walleye and northern pike were updated and the number of issuable permits (Figure 3) was determined. The number of issuable spearing permits was determined by dividing the remaining tribal walleye quota for spearing in a lake by the nightly bag limit selected for that lake. The number of issuable netting permits was determined by dividing the remaining tribal walleye quota for netting by an assigned catch rate value. An assigned catch rate value of 40 pounds of walleye per net was used from April 1 to April 7. The catch rate value ranged from 35 to 45 pounds of walleye per net from April 8 to April 15, decreased to 30 pounds on April 16, decreased to 20 pounds on April 17, decreased to 10 pounds on April 19, and finally increased to 15 pounds on April 21 where it remained for the rest of the quota year. Tribal members could pick up a permit at a registration station or a boat landing.

One or more creel clerk-warden teams were assigned to each designated boat landing on Mille Lacs Lake where permits had been scheduled to be issued. All off-reservation spearing and netting was monitored by creel teams under the supervision of GLIFWC staff or by Fond du Lac Band wardens and biologists. All on-reservation spearing and netting in Mille Lacs Lake was monitored by creel teams under the supervision of Mille Lacs Band wardens. Prior to the season, written instructions, equipment, data forms, and training were provided to creel clerks and others involved with harvest monitoring and reporting.

Spear monitoring teams typically arrived at the designated boat landing before dusk and stayed until spearing ended. For spearing, a monitoring team completed a catch report form (Appendix C) upon the return of a boating party. At each landing, length and sex information were collected from the first 100 walleye plus all walleye in the last boat. Also, the number and aggregate weight by species were recorded plus length and sex information for species other than walleye. Besides harvest information, the time spearing started and ended, permit numbers, and the name and tribal identification number of each spearer were recorded (Appendix C). When available, tribal members could be issued one or more additional spearing permits.

Gill net monitoring teams arrived at the designated boat landing or monitoring location prior to scheduled net lift times. Most nets were set in the evening, fished overnight, and lifted the following morning. Lift times and locations were scheduled in advance and written on each issued permit. Nets could be checked, fish removed, and reset at night prior to the designated lift time only if monitoring personnel were notified and present at the landing. When length and sex information were being collected from a sub-sample of netted walleye a catch report form was completed. However, after the sub-sample requirement was met, harvest information was recorded on the back of the permit. This information included number and aggregate weight by species plus length and sex information for species other than walleye. For walleye, a sample of spines or otoliths were collected for aging.

The system as modified to manage harvest during the 2008-2009 quota year, was again used for the 2010-2011 quota year. An on-line Google.docs spreadsheet was used to enter, proof, and track harvest and effort data. The number and pounds of walleye and northern pike as well as other data were entered for each permit. As data for each permit were entered, the Google.docs application updated the number and pounds of walleye and northern pike harvested per tribe as well as the balance for each tribe's walleye quota and northern pike cap. This "real time" on-line system was shared with select tribal representatives and GLIFWC staff. During spring 2010, harvest data for walleye and northern pike by Band were transmitted daily to Minnesota Department of Natural Resources (MnDNR) representatives as close to noon as possible. For nets not recovered by around noon each day, the number of nets unrecovered or outstanding was multiplied by the assigned catch rate for that day and the total subtracted from a Band's quota until the actual data were reported and could be used.

Figure 1. Map depicting the 1837 ceded territory and eight Chippewa reservations in Wisconsin and Minnesota.

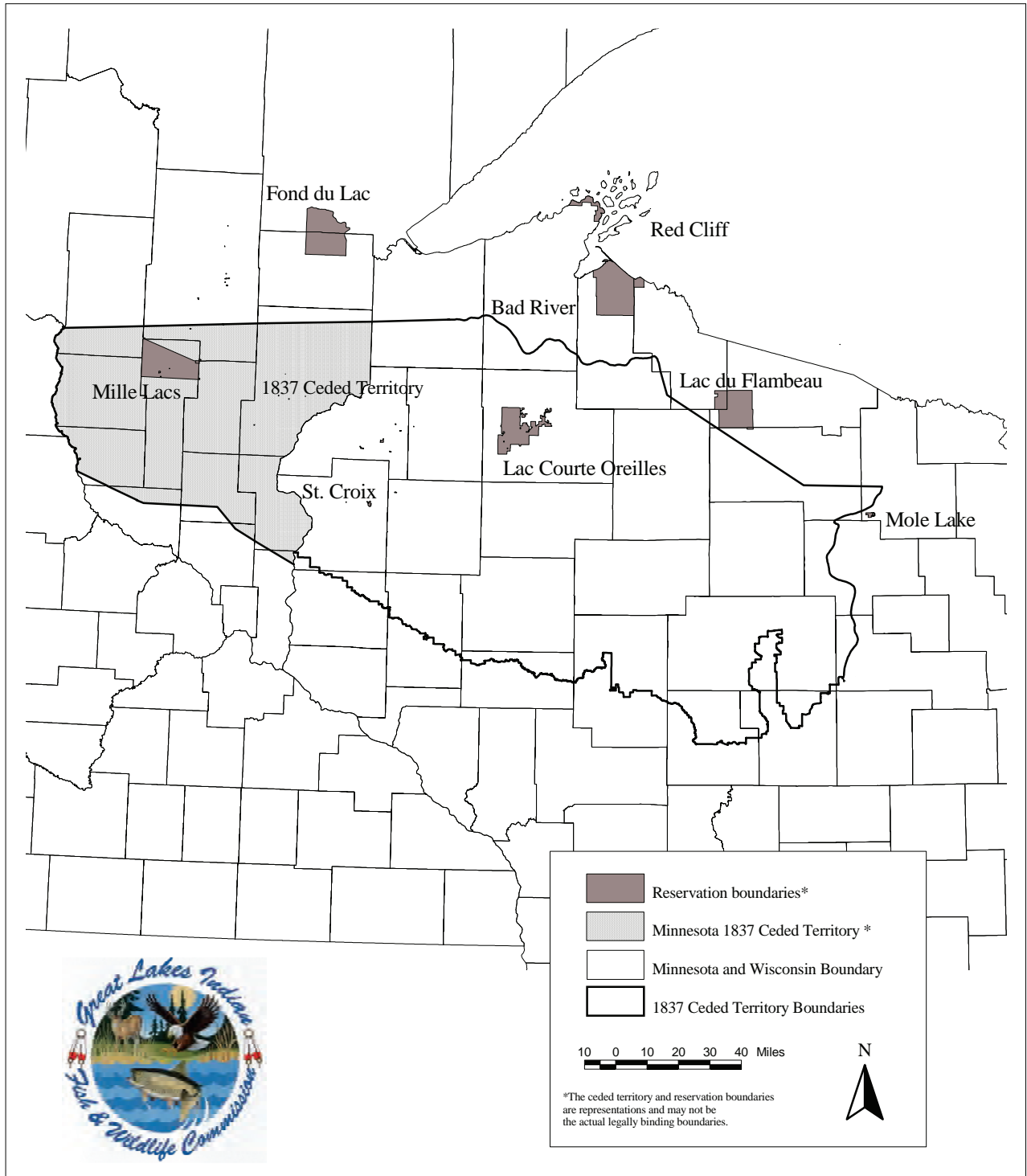
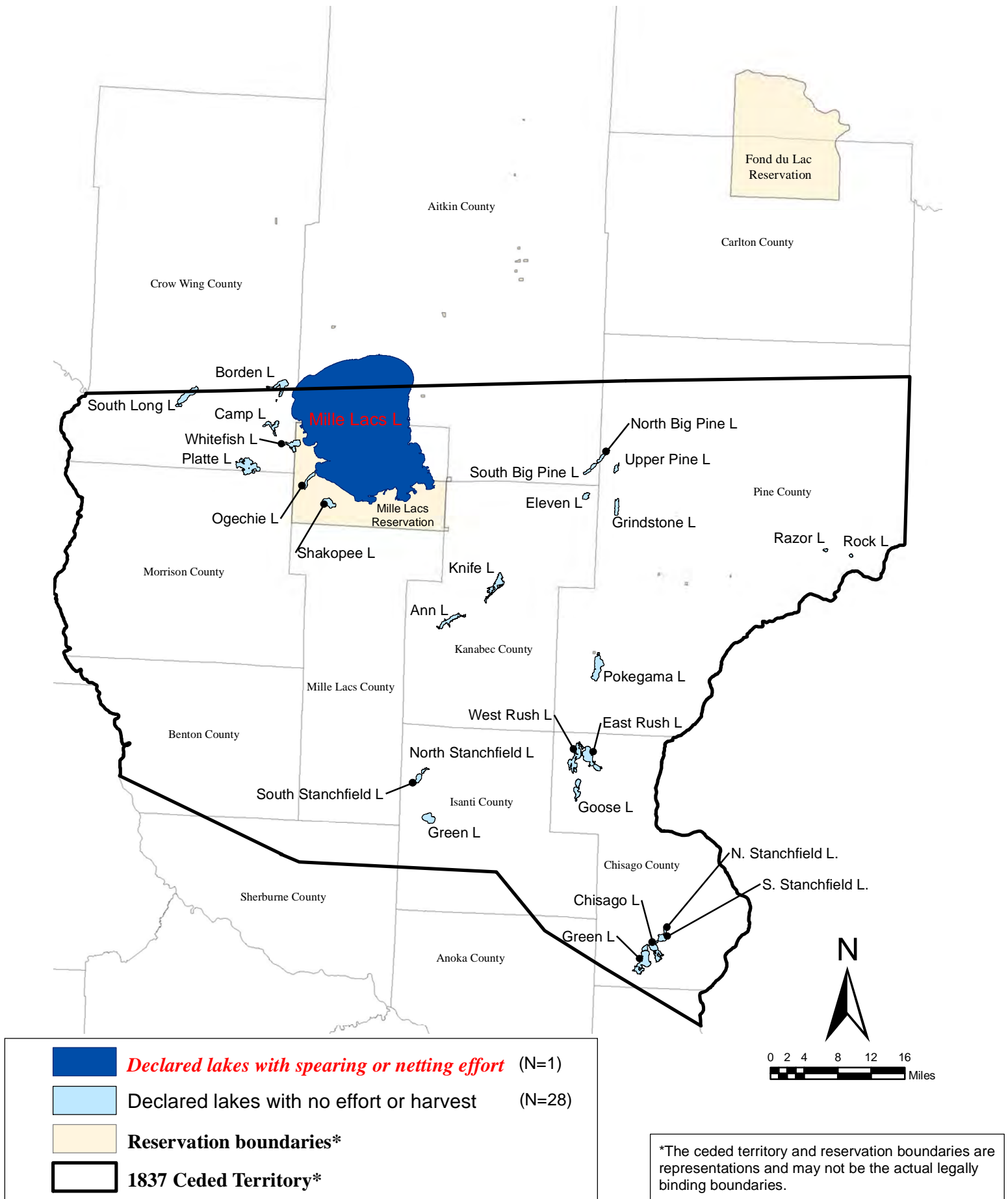


Figure 2. Lakes declared for harvest in the 1837 Minnesota ceded territory during the 2010-2011 quota year.



28 29 30 31 Month _____ 1 2 3 4 5

27 **Off-Reservation Treaty Fishing Permit** 6

26 **Spearing** **Fyke Netting** 7

Seining **Gill Netting**

25 Tribal ID Number _____ of _____ Reservation 8

24 Signature of Permittee: _____ 9

 Issued by: _____ of _____ Reservation

23 Water: _____ County: _____ 10

22 Bag Limit Walleye _____ Muskellunge _____ 11

 Other Restrictions: _____

21 20 19 18 17 16 15 14 13 12

Front

Start Time: _____ (am or pm) Net Length: _____

End Time: _____ (am or pm) Mesh: _____

Species	Count	Weight (lbs)	Species	Length (in.)	Sex
<u>Walleye</u>	_____	_____ . _____	_____	_____ . _____	_____
<u>Northern Pike</u>	_____	_____ . _____	_____	_____ . _____	_____
<u>Yellow Perch</u>	_____	_____ . _____	_____	_____ . _____	_____
_____	_____	_____ . _____	_____	_____ . _____	_____
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Back

Figure 3. Treaty fishing permit used during the 2010-2011 tribal quota year.

RESULTS AND DISCUSSION

FISHING EFFORT

NUMBER OF PARTICIPANTS

A total of 623 tribal members speared, netted, or speared and netted on Mille Lacs Lake during the 2010 spring fishery in Minnesota (Table 1; Appendix D). Of these, 30% were Mille Lacs members, 24% were Fond du Lac members, and 46% were from the six Wisconsin bands combined. Compared to 2009, the total number of participants increased by 61 persons or 11%. Mille Lacs Band had 13 members who netted during fall 2010 and 3 members who netted during early spring 2011.

Table 1. Number of tribal members from eight Chippewa bands who speared, netted, or speared and netted in Mille Lacs Lake during the 2010 spring fishery.

Gear	Mille Lacs	Fond du Lac	Bad River	Lac Courte Oreilles	Lac du Flambeau	Mole Lake	Red Cliff	St. Croix	Total
Spearing only	4	10	0	0	1	2	2	0	19
Netting Only	176	77	55	39	48	24	31	49	499
Spearing and Netting	9	60	4	0	27	2	2	1	105
2010 Spring total	189	147	59	39	76	28	35	50	623
2009 Spring total	188	131	54	35	69	16	25	44	562
2008 Spring total	136	106	49	40	71	16	20	42	480
2007 Spring total	152	155	53	35	90	25	33	52	595
2006 Spring total	136	123	46	33	73	14	12	39	476
2005 Spring total	119	128	48	33	56	21	14	39	458
2004 Spring total	107	153	48	30	57	30	11	42	478
2003 Spring total	117	136	37	35	41	19	18	39	442
2002 Spring total	110	108	42	33	55	24	8	39	419
2001 Spring total	102	91	40	29	40	22	18	29	371
2000 Spring total	119	99	46	34	45	15	13	32	403
1999 Spring total	109	21	28	25	21	13	13	17	247
1998 Spring total	69	34	13	7	15	0	4	10	152

NUMBER OF PERMITS USED

A total of 3,223 permits were used on Mille Lacs Lake during spring 2010, a 14% increase from the 2009 spring season (Table 2, Appendices B and D). More netting permits (2,898) were used than spearing permits (325). Of the total permits, 20% were used by Mille Lacs members, 12% by Fond du Lac members, and 68% by the six Wisconsin bands combined. After the 2010 spring season, the Mille Lacs band issued 28 permits for fall gill-netting and five (5) permits for gill-netting in March 2011.

Table 2. Number of permits used by eight Chippewa bands on Mille Lacs Lake during spring 2010.

Gear	Mille Lacs	Fond du Lac *	Bad River	Lac Courte Oreilles	Lac du Flambeau	Mole Lake	Red Cliff	St. Croix	Total
Gill net	599	227	388	380	369	277	267	391	2,898
Spears	35	161	7	0	88	26	6	2	325
2010 total	634	388	395	380	457	303	273	393	3,223
Percent of 2010 Total:	20%	12%	12%	12%	14%	9%	8%	12%	
2009 total	678	450	310	347	375	151	325	201	2,837
2008 total	586	423	268	401	531	133	259	147	2,748
2007 total	592	674	255	252	489	160	410	270	3,102
2006 total	495	317	227	208	321	51	232	137	1,988
2005 total	448	460	243	263	272	161	271	176	2,294
2004 total	364	489	197	188	289	139	245	178	2,089
2003 total	438	560	121	172	182	79	220	97	1,869
2002 total	462	443	97	114	188	50	216	132	1,702
2001 total	397	274	70	66	89	27	93	65	1,081
2000 total	441	193	94	67	93	28	111	42	1,069
1999 total	328	188	54	44	45	33	52	47	791
1998 total	198	155	43	30	36	15	33	0	510

*The Fond du Lac tribe authorized its members to set more than one net under a single permit which accounts for the permit count being 346 less than the net lift count.

NUMBER OF DAYS FISHED

Spearing or netting effort occurred on 35 dates during the 2010-2011 quota year (Appendix A). During a 22 day period in spring 2010 (April 1 to April 22), spearing occurred in Mille Lacs Lake on 11 dates while netting occurred on 22 days. During the remainder of the quota year, netting occurred in Mille Lacs Lake on 10 dates during fall (October 29 to November 12) and on three (3) dates during early spring 2011 (March 17 to March 31).

NUMBER OF BOAT-HOURS

A total of 344.5 boat-hours of spearing effort occurred at Mille Lacs Lake during the 2010-2011 quota year (Table 3); all occurred during spring 2010 (Appendix A). Lac du Flambeau spearmen accounted for 40% of total boat-hour effort while Fond du Lac and the remaining bands accounted for 26% and 34%, respectively.

Table 3. Number of spearing boat-hours by eight Chippewa bands during the 2010-2011 quota year.

Year	Mille Lacs	Fond du Lac	Bad River	Lac Courte Oreilles	Lac du Flambeau	Mole Lake	Red Cliff	St. Croix	Total
2010	53.8	89.5	10.7	0.0	138.2	40.0	9.2	3.1	344.5
Percent of 2010 total	15.6%	26.0%	3.1%	0.0%	40.1%	11.6%	2.7%	0.9%	100%
2009	49.1	133.2	12.4	0.5	64.7	10	1.6	0.75	272.3
2008	71.7	209.5	0	0	109.1	3.6	2.6	0	396.5
2007	110.5	406.6	46.5	5.1	86.6	25.3	12.4	16	709.1
2006	52	83.2	10.4	7.8	104	11.7	11.7	6.5	287.3
2005	52.3	238.5	15.1	2.3	45.8	0	0	16.3	370.3
2004	20.3	247.4	3.8	0	17.8	6.3	5.5	2.9	303.9
2003	47.4	243.9	11.9	0	31.2	2	0	5.2	341.6
2002	48.7	257.2	1.5	0	35.5	7	6.5	15.3	371.6
2001	54.9	190.8	15	9	11.1	8.3	0	1	290
2000	96.8	163	6.3	0	34.6	0	0	23.5	324.1
1999	106.9	233.2	8.5	0	10.4	7.8	6.4	9.6	382.8
1998	56	156.5	15.5	23.6	23.6	0	23.1	21.6	319.9

NUMBER OF NET LIFTS

A total of 3,277 net-lifts occurred in Mille Lacs Lake during the 2010-2011 quota year, of which 3,244 occurred in spring 2010 (Table 4, Appendix E). All net sets that had mesh size recorded were 1.75 inch bar mesh. A total of 33 net-lifts occurred in Mille Lacs Lake by Mille Lacs band members after spring 2010.

Table 4. Number of net-lifts by eight Chippewa bands during the 2010-2011 quota year.

Season	Gill-net mesh (bar) (Inches)	Mille Lacs	Fond du Lac**	Bad River	Lac Courte Oreilles	Lac du Flambeau	Mole Lake	Red Cliff	St. Croix	Total
Spring 2010	1.75	18	573	285	164	274	120	207	159	1,800
Spring 2010	not noted	581	0	103	216	95	157	60	232	1,444
Spring sub-total:		599	573	388	380	369	277	267	391	3,244
Fall 2010	1.75	28	0	0	0	0	0	0	0	28
Early spring 2011	not noted	5	0	0	0	0	0	0	0	5
After Spring sub-total:		33	0	0	0	0	0	0	0	33
2010 Total:		632	573	388	380	369	277	267	391	3,277
2009 Total:		742	546	306	352	330	191	150	341	2,958
2008 Total:		618	509	268	401	413	141	129	259	2,738
2007 Total:		1,128	804	464	490	686	348	280	789	4,989
2006 Total:		484	171	212	202	221	128	42	240	1,700
2005 Total:		537	213	227	262	177	176	161	265	2,018
2004 Total:		384	261	186	188	222	171	137	240	1,789
2003 Total:		480	238	110	172	151	95	79	209	1,534
2002 Total:		553	217	96	114	137	125	46	196	1,484
2001 Total:		521	73	60	65	73	61	27	96	976
2000 Total:		494	57	91	68	87	42	28	84	951
1999 Total:		427	34	50	44	44	32	28	40	699
1998 Total:		181	41	25	20	24	0	6	22	319

** The Fond du Lac tribe authorized its members to set more than one net under a single permit which accounts for the permit count (227) (Appendix D) being 346 less than the net-lift count (573) during spring 2010.

HARVEST

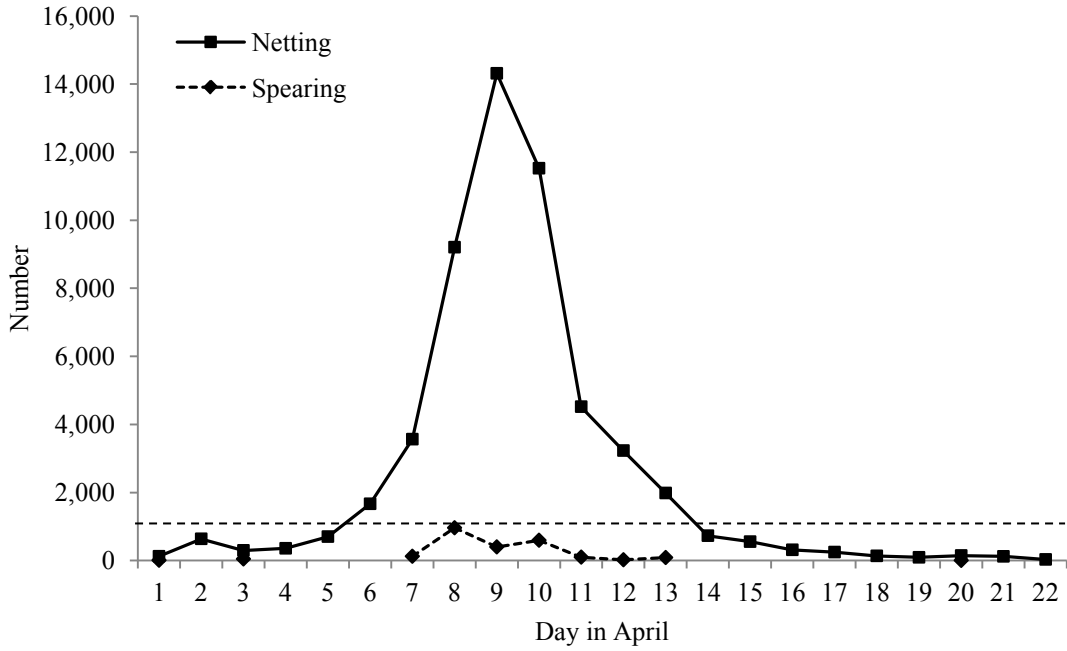
A total of 64,679 fish (140,567 pounds) representing 14 taxa were harvested from Mille Lacs Lake (Table 5). The majority of harvested fish were walleye, which comprised 56,835 fish and 124,072 pounds or 88% of the total number and total weight. Northern pike, yellow perch, sucker, and tullibee were the four other species whose harvest exceeded 1,000 pounds. For four of the five species with more than 1,000 pounds harvested, a greater percent of the total weight was taken during spring 2010 than after. For tullibee, a greater percent was taken after spring 2010 (i.e. the fall).

During spring 2010 walleye harvest exceeded 1,000 fish or 1,000 pounds or both on April 2 and for 11 consecutive days from April 5 to April 15 (Figure 4, Appendices B and E). The majority of walleye harvested during spring 2010 were taken with gill-nets (118,648 pounds) compared to spears (5,350 pounds) (Appendix B).

Table 5. Number and pounds of fish harvested in Mille Lacs Lake during and after spring 2010.

Species / Taxa	Spring 2010		After Spring 2010		Total		Percent total weight taken during spring
	Number	Pounds	Number	Pounds	Number	Pounds	
Walleye	56,809	123,997.5	26	74.6	56,835	124,072.1	99.9%
Northern Pike	2,179	9,808.3	21	140.8	2,200	9,949.1	98.6%
Yellow Perch	1,524	1,184.7	3	1.4	1,527	1,186.1	99.9%
Burbot	26	46.3			26	46.3	100.0%
Sucker	2,084	3,167.1	2	2	2,086	3,169.1	99.9%
Tullibee	78	115.0	1,437	1,361.7	1,515	1,476.7	7.8%
Muskellunge	9	196.8	1	28	10	224.8	87.5%
Smallmouth Bass	119	159.3			119	159.3	100.0%
Rock Bass	249	168.5			249	168.5	100.0%
Bullhead	1	1.8			1	1.8	100.0%
Bass Sp.	28	34.2			28	34.2	100.0%
Crappie Sp.	53	38.0			53	38.0	100.0%
Bowfin	2	8.0			2	8.0	100.0%
Largemouth Bass	15	23.8			15	23.8	100.0%
Sunfish	13	9.4			13	9.4	100.0%
Total	63,189	138,958.7	1,490	1,608.5	64,679	140,567.2	98.9%

a)



b)

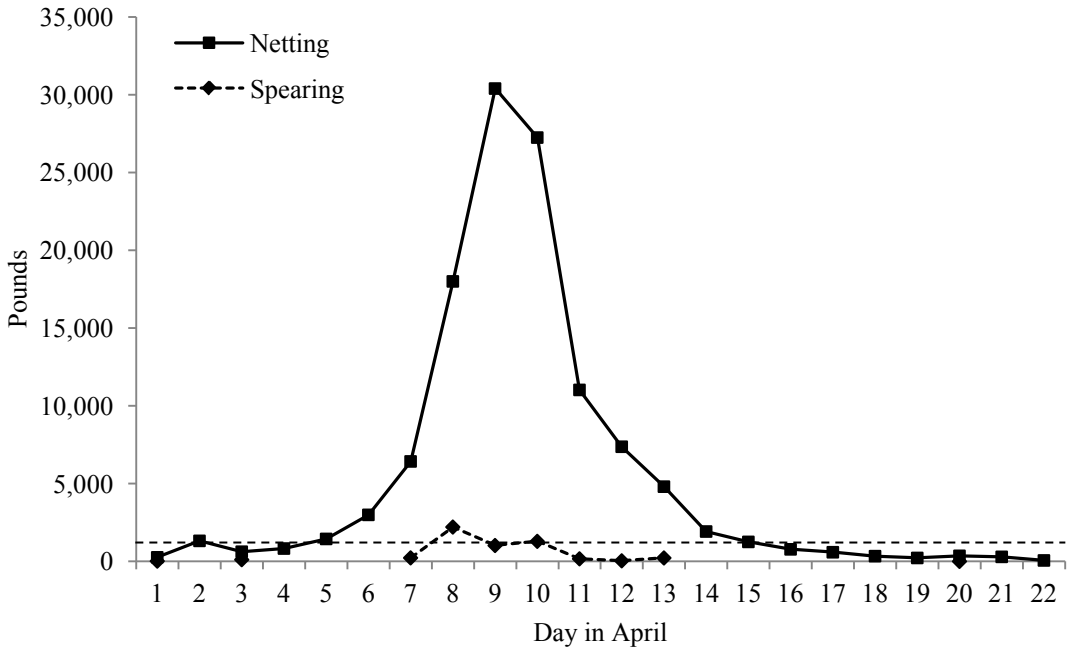


Figure 4. Number (a) and pounds (b) of walleye harvested daily at Mille Lacs Lake by spearing and netting during spring 2010.

Harvest in Mille Lacs Lake was regulated by a quota for two species, walleye and yellow perch, and a cap for northern pike (Appendix F). During the 2010-2011 quota year, 94% of the 132,500 pound quota for walleye, 80% of the 12,496 pound cap for northern pike, and 1% of the 97,428 pound quota for yellow perch were harvested. Quotas that existed for two other species, burbot and tullibee, were removed at the January 2008 meeting of the Minnesota Ceded Territory Fisheries Committee.

CATCH PER EFFORT (CPE)

A total of 344.5 boat-hours of spearing were recorded during spring 2010 (Table 3). A total of 2,330 walleye weighing 5,350 pounds was speared (Appendix B); overall spring CPE (total number or weight / total boat hours) of walleye was 6.8 fish and 15.5 pounds per hour.

A total of 3,277 net lifts was recorded during the 2010 – 2011 quota year in which 54,505 walleye weighing 118,722 pounds were caught (Table 4; Appendix G). Overall catch per effort was 16.6 fish and 36.2 pounds per net lift. During spring 2010, a total of 3,244 net-lifts were recorded in which 54,479 walleye weighing 118,648 pounds were taken (Appendix E), CPE was 16.8 fish and 36.6 pounds per net-lift (Figures 5 and 6).

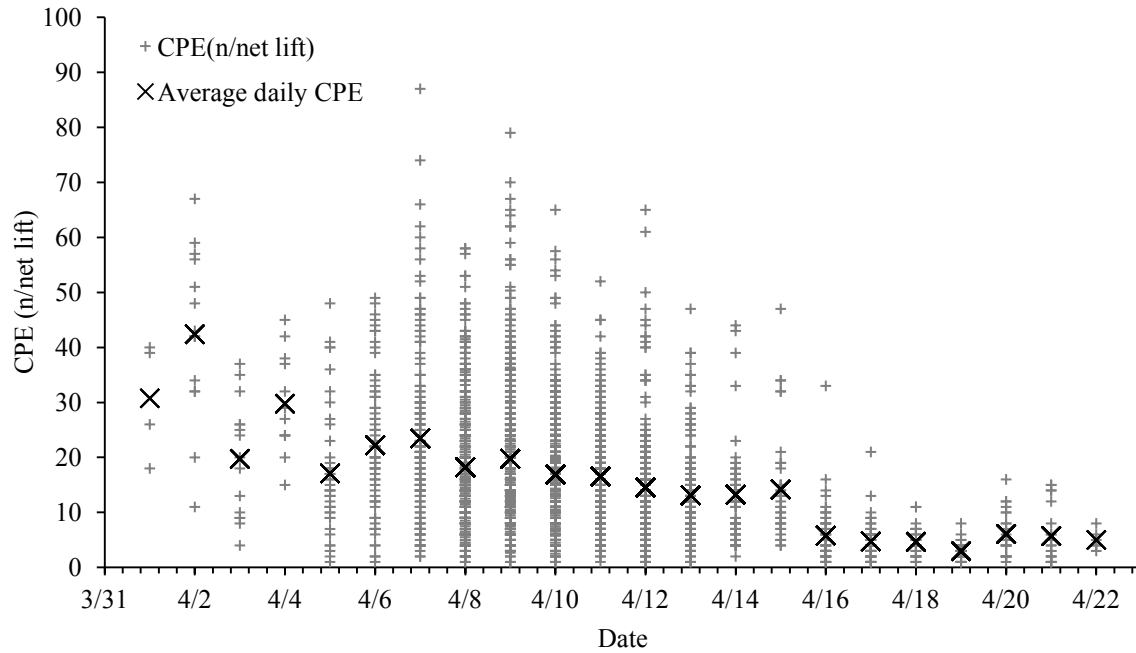


Figure 5. Gill-net CPE (number per net-lift) for walleye harvested from Mille Lacs Lake during spring 2010. Average number per net-lift = 16.8 fish.

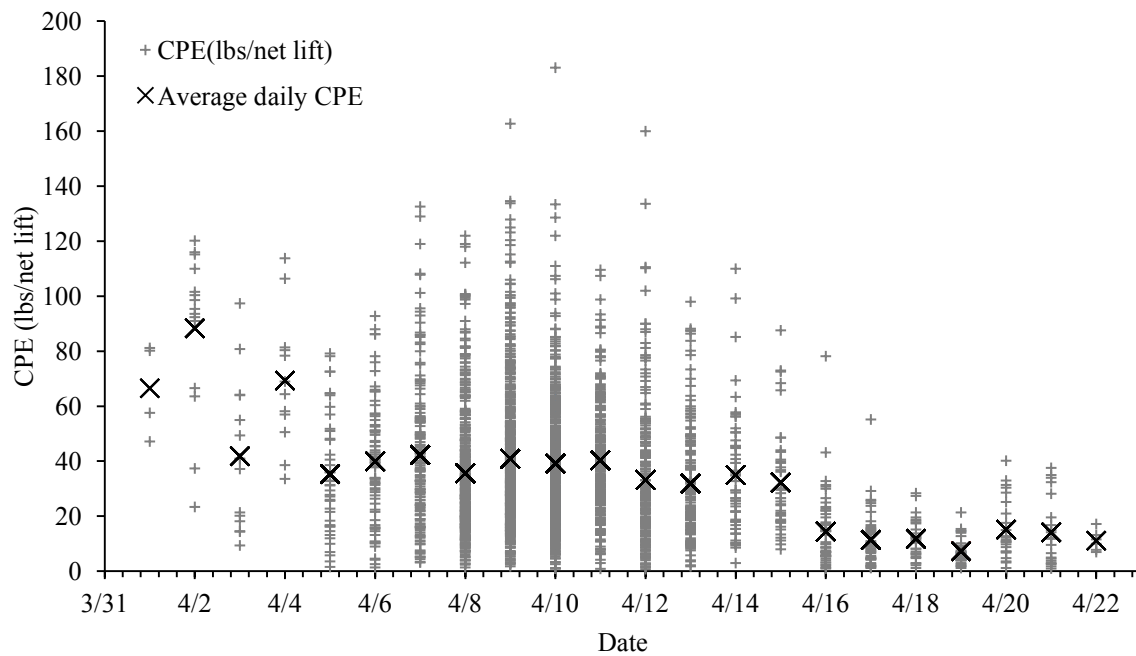


Figure 6. Gill-net CPE (pounds per net-lift) for walleye harvested from Mille Lacs Lake during spring 2010. Average weight per net lift = 36.6 pounds.

WALLEYE MEAN LENGTH AND WEIGHT

Length (inches) was measured for a total of 8,050 walleye, 14.2% of the total walleye harvest, and aggregate weight was recorded for all 56,835 walleye harvested (Appendices B and G, Table 5, Figure 7). Average length of measured walleye was 18.1 inches and average weight for all walleye was 2.2 pounds. During spring 2010, for walleye netted, mean length of measured fish was also 18.1 inches and average weight was 2.2 pounds. For speared walleye during spring 2010, mean length of measured fish was 18.3 inches and 2.3 pounds.

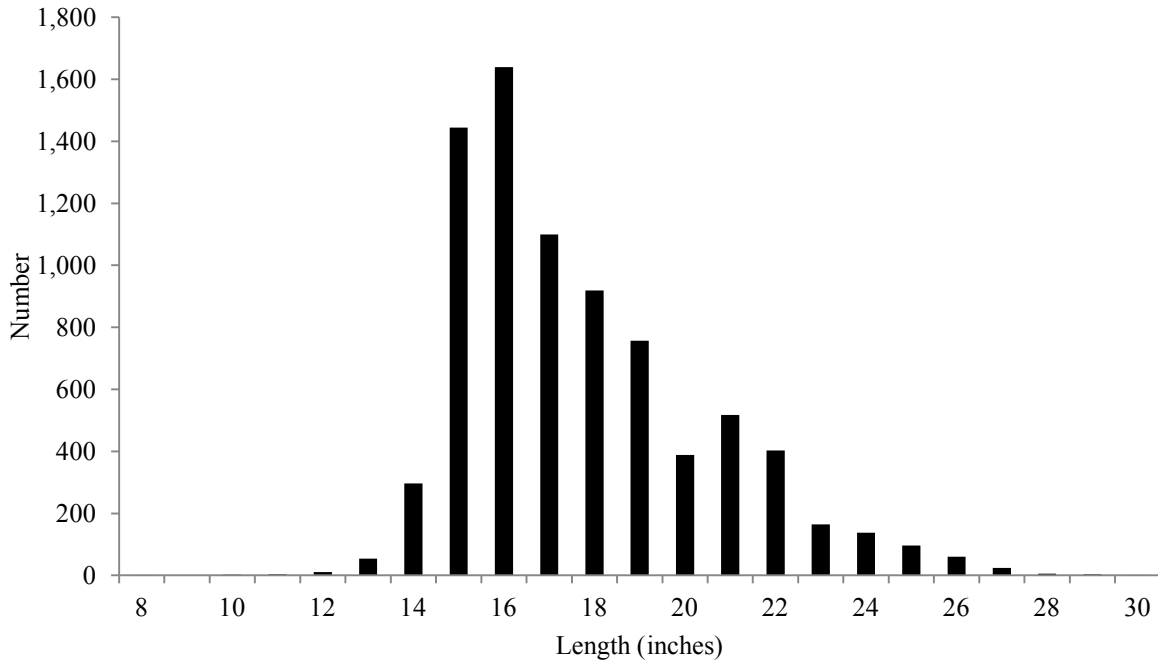


Figure 7. Length frequency of harvested walleye in Mille Lacs Lake during the 2010-2011 quota year (N= 8,050; average length = 18.1 in).

SEX COMPOSITON OF THE WALLEYE CATCH

A total of 7,958 walleye were measured and sexed during the 2010-2011 quota year (Appendix G). The majority or 78% were male, with 16% female, and 6% unknown sex. During spring 2010, percentages for walleye netted were 75% male, 18% female, and 7% unknown sex; the male:female sex ratio was 4.2:1. Percentages for speared walleye were 86% male, 11% female, and 3% unknown sex; the male:female sex ratio was 7.5:1.

Overall average length was 17.3 inches for male and 21.4 inches for female walleye (Figure 8, Appendix G). Respective average lengths for male and female walleye during spring 2010 were: 17.2 and 20.9 inches for gill netting and 17.5 and 23.4 inches for spearing (Figure 9).

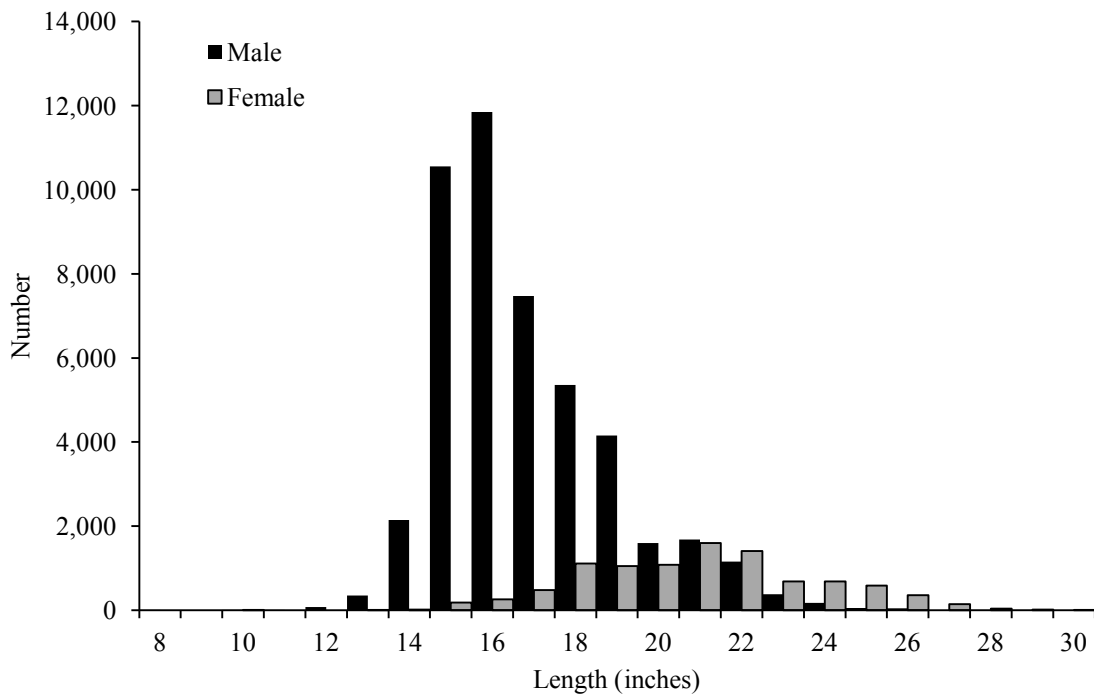


Figure 8. Estimated number of male and female walleye harvested per inch group during spring 2010.

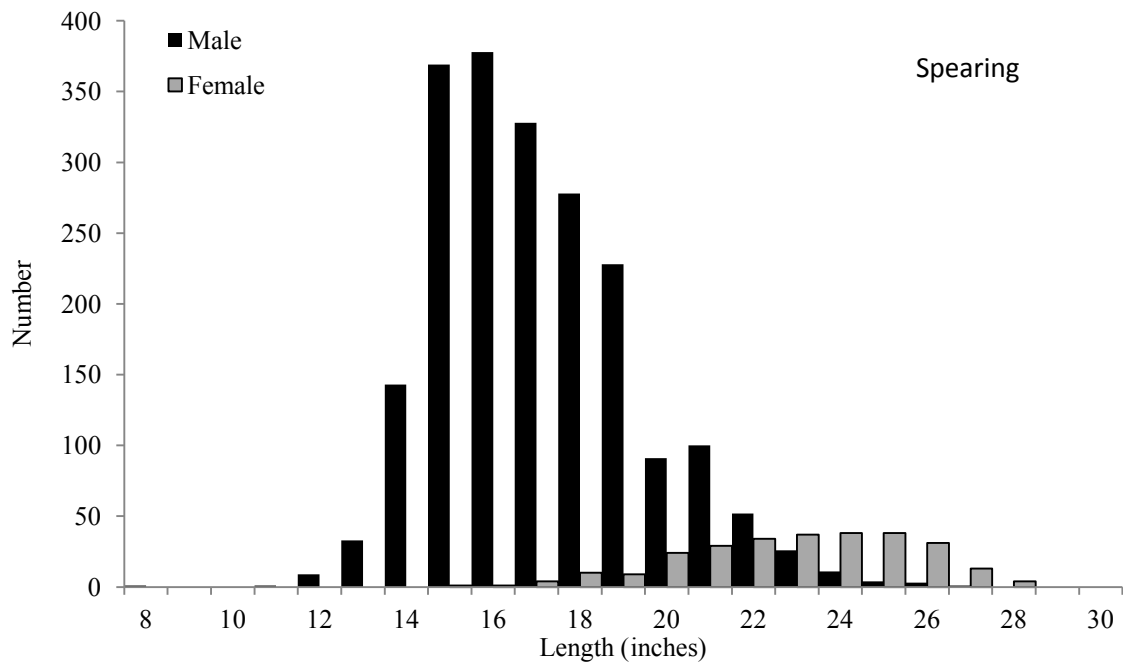
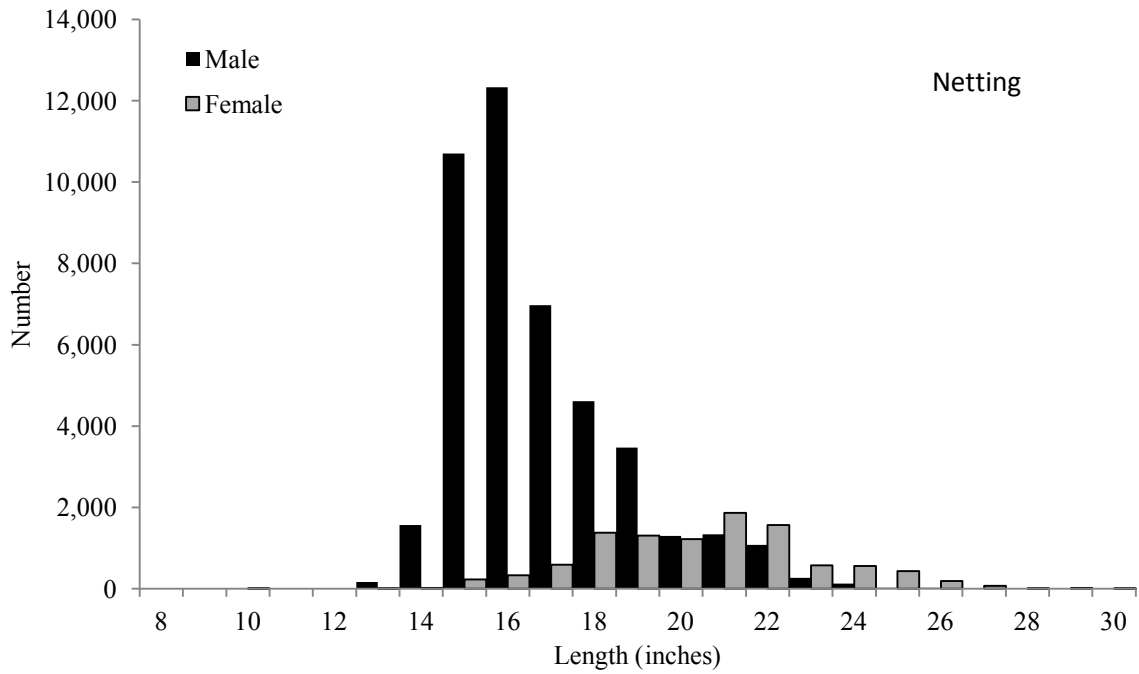


Figure 9. Estimated number of male and female walleye harvested with gill nets and by spearing from Mille Lacs Lake during spring 2010.

NORTHERN PIKE HARVEST

A total of 2,200 northern pike weighing 9,949.1 pounds were harvested from Mille Lacs Lake during the 2010-2011 quota year (Table 5, Appendix H). Overall average weight was 4.5 pounds. Most northern pike were harvested during spring 2010 (2,179 fish, 9,808.3 pounds). A total of 1,951 northern pike were measured; average length was 25.7 inches (Figure 10). A total of 1,884 northern pike were sexed: 26% were male, 23% female and 52% were of unknown sex. Average length was 24.0 inches for males and 27.5 inches for females. Eighty (80) percent of the northern pike quota was harvested (Appendix F).

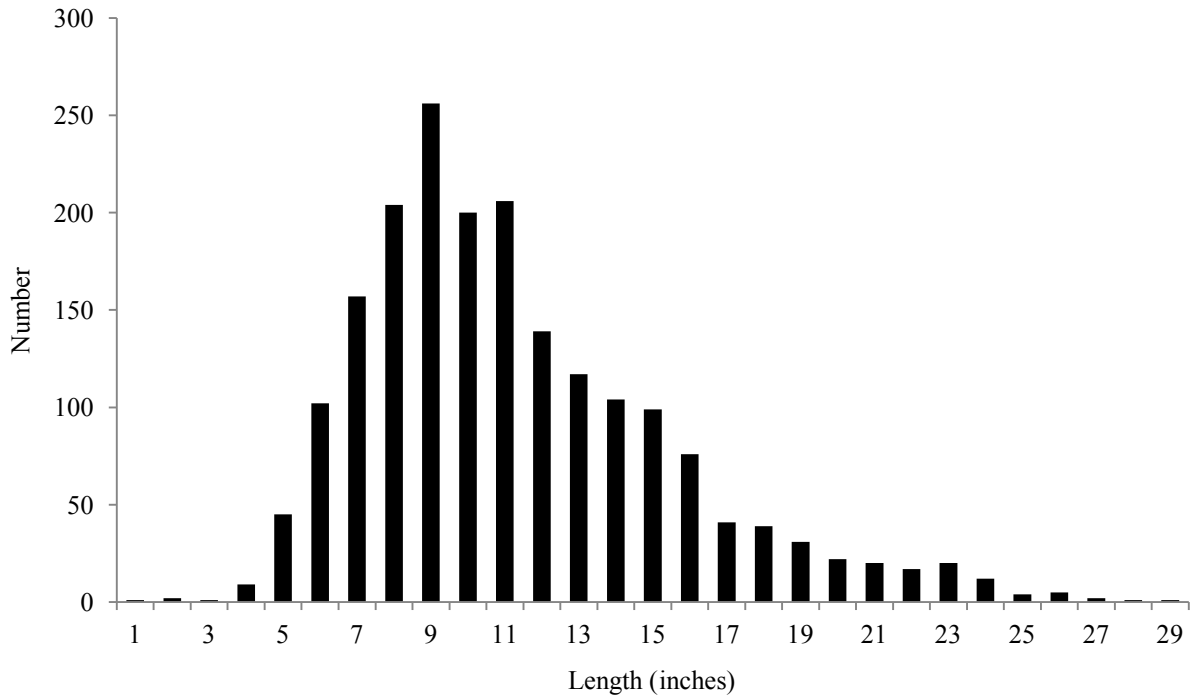


Figure 10. Length frequency of measured northern pike in Mille Lacs Lake during the 2010-2011 quota year (N = 1,991, Average length = 25.7).

YELLOW PERCH HARVEST

A total of 1,527 yellow perch weighing 1,186.1 pounds were harvested from Mille Lacs Lake during the 2010-2011 quota year (Appendix I); overall mean weight was 0.8 pounds. For the 363 yellow perch measured, average length was 11.1 inches (Figure 11). The majority of yellow perch (1,524 fish or over 99% of total) were harvested during spring 2010. A total of 341 yellow perch were sexed: 51% were male, 41% female and 8% unknown sex. Average length was 10.9 inches for males and 11.4 inches for females. Of the total yellow perch quota, 1% was harvested (Appendix F).

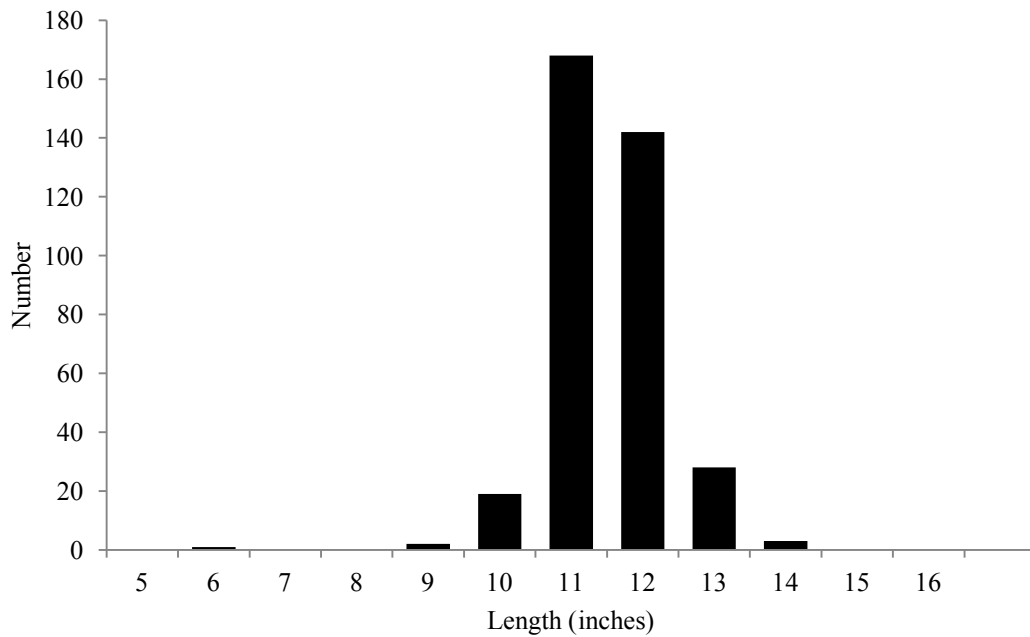


Figure 11. Length frequency of measured yellow perch harvested from Mille Lacs Lake during the 2010-2011 quota year (N = 363, Average length = 11.1 in).

TULLIBEE HARVEST

A total of 1,515 tullibee (cisco or lake herring) weighing 1,476.7 pounds was harvested from Mille Lacs Lake; average weight was 1.0 pounds (Appendix J). The majority (92%) of tullibee was taken in fall 2010. A total of 107 tullibee were measured with an average length of 13.7 inches (Figure 12).

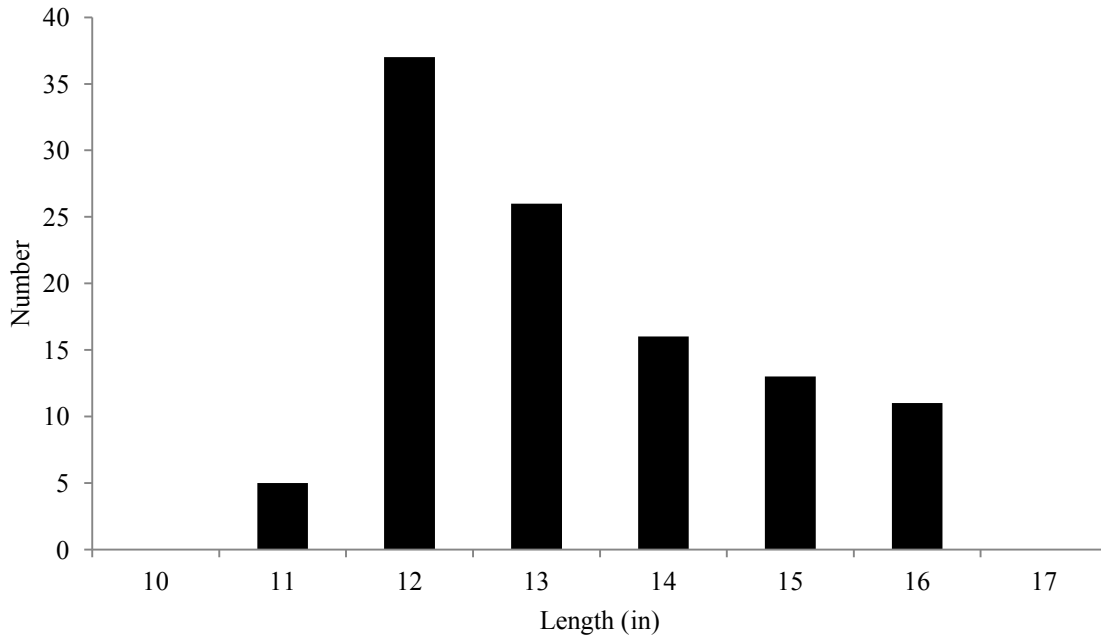


Figure 12. Length frequency of measured tullibee harvested from Mille lacs Lake during the 2010-2011 quota year (N = 107; Average length = 13.7).

BURBOT HARVEST

A total of 26 burbot weighing 46.1 pounds were harvested from Mille Lacs Lake; average weight was 1.8 pounds (Appendix K). All burbot were harvested during spring.

ACKNOWLEDGEMENTS

The author extends a “Miigwech” to everyone that assisted with monitoring the fishery. I would like to thank Leanne Thannum, Kim Campy, and Jenny Krueger for their diligence in compiling nightly harvest statistics, in providing these data to tribal and MnDNR representatives, and in updating each day the list of quotas for each species, along with the adjusted quota, the bag limits, and the number of permits available for each band. In addition, I thank tribal fisheries biologists, tribal wardens, fisheries technicians, and creel clerks who helped to compile harvest data each day. I also appreciate the tribal members who fished and patiently allowed the monitoring of the catch. I thank Neil Kmiecik for editing this report.

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 TRIBE=BAD RIVER

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	12,000.0	803.0
REVISED QUOTA	12,000.0	863.0
HARVEST	11,175.8	860.2
BALANCE	824.2	2.8

 TRIBE=FOND DU LAC

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	24,000.0	803.0
REVISED QUOTA	24,500.0	773.0
HARVEST	24,442.7	770.3
BALANCE	57.3	2.7

 TRIBE=LAC COURTE OREILLES

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	14,000.0	803.0
REVISED QUOTA	13,700.0	883.0
HARVEST	13,648.9	877.8
BALANCE	51.1	5.2

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

 TRIBE=LAC DU FLAMBEAU

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	19,500.0	803.0
REVISED QUOTA	19,700.0	913.0
HARVEST	19,625.4	947.4
BALANCE	74.6	-34.4

 TRIBE=MILLE LACS

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	27,000.0	6,875.0
REVISED QUOTA	27,000.0	6,475.0
HARVEST	24,498.3	3,971.1
BALANCE	2,501.7	2,503.9

 TRIBE=MOLE LAKE

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	12,000.0	803.0
REVISED QUOTA	11,600.0	776.0
HARVEST	7,207.5	700.3
BALANCE	4,392.5	75.7

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

 TRIBE=RED CLIFF

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	12,000.0	803.0
REVISED QUOTA	12,000.0	903.0
HARVEST	11,487.3	900.5
BALANCE	512.7	2.5

 TRIBE=ST CROIX

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	12,000.0	803.0
REVISED QUOTA	12,000.0	935.0
HARVEST	11,986.2	921.5
BALANCE	13.8	13.5

 TRIBE=TOTAL

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	132,500.0	12,496.0
REVISED QUOTA	132,500.0	12,521.0
HARVEST	124,072.1	9,949.1
BALANCE	8,427.9	2,571.9

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

TRIBE=BAD RIVER

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		4/6/2010	24	42.4	.	.	1	42.4
NET		4/7/2010	312	529.6	16	99.0	9	58.8
NET		4/8/2010	562	1,032.8	32	153.0	27	38.3
NET		4/9/2010	901	1,921.2	18	85.4	43	44.7
NET		4/10/2010	663	1,556.4	20	84.6	35	44.5
NET		4/11/2010	319	846.0	18	83.2	21	40.3
NET		4/12/2010	443	1,081.0	26	123.6	46	23.5
NET		4/13/2010	314	860.9	10	40.6	40	21.5
NET		4/14/2010	276	753.4	5	19.4	30	25.1
NET		4/15/2010	381	839.4	5	15.2	23	36.5
NET		4/16/2010	212	536.6	9	34.6	29	18.5
NET		4/17/2010	135	337.0	7	25.0	21	16.0
NET		4/18/2010	77	200.8	2	11.4	12	16.7
NET		4/19/2010	47	121.2	.	.	15	8.1
NET		4/20/2010	79	196.8	5	17.4	15	13.1
NET		4/21/2010	64	153.2	6	21.4	15	10.2
NET		4/22/2010	30	66.8	11	46.4	6	11.1
NET	TOTAL		4,839	11,075.5	190	860.2	388	28.5
SPEAR		4/8/2010	27	59.4	.	.	3	.
SPEAR		4/10/2010	12	35.9	.	.	2	.
SPEAR		4/20/2010	1	5.0	.	.	2	.
SPEAR	TOTAL		40	100.3	.	.	7	.
TOTAL	TOTAL		4,879	11,175.8	190	860.2	395	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

 TRIBE=FOND DU LAC

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		4/8/2010	3,500	6,819.4	32	133.6	107	35.2
NET		4/9/2010	3,497	8,275.3	40	188.6	68	39.2
NET		4/10/2010	2,863	7,236.4	94	448.1	52	43.1
NET	TOTAL		9,860	22,331	166	770.3	227	39.0
SPEAR		4/8/2010	539	1,369.8	.	.	27	.
SPEAR		4/9/2010	134	381.0	.	.	114	.
SPEAR		4/10/2010	162	360.8	.	.	20	.
SPEAR	TOTAL		835	2,111.6	.	.	161	.
TOTAL	TOTAL		10,695	24,442.7	166	770.3	388	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

 TRIBE=LAC COURTE OREILLES

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/ NET
NET		4/6/2010	122	204.3	3	8.2	6	34.1
NET		4/7/2010	266	538.2	12	48.2	18	29.9
NET		4/8/2010	1,006	1,844.7	68	259.6	67	27.5
NET		4/9/2010	1,714	3,293.7	87	363.8	81	40.7
NET		4/10/2010	835	1,890.7	2	10.3	51	37.1
NET		4/11/2010	687	1,661.9	24	85.0	45	36.9
NET		4/12/2010	942	2,040.6	21	86.5	60	34.0
NET		4/13/2010	816	1,830.4	2	4.8	46	39.8
NET		4/14/2010	146	344.4	2	11.4	6	57.4
NET	TOTAL		6,534	13,648.9	221	877.8	380	35.9
TOTAL	TOTAL		6,534	13,648.9	221	877.8	380	35.9

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

 TRIBE=LAC DU FLAMBEAU

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		4/7/2010	675	1,287.8	44	151.8	20	64.4
NET		4/8/2010	1,016	2,004.2	67	258.3	59	34.0
NET		4/9/2010	2,509	5,237.9	37	162.0	112	46.8
NET		4/10/2010	2,905	6,515.5	41	188.9	129	50.5
NET		4/11/2010	647	1,611.3	21	88.0	34	47.4
NET		4/12/2010	386	853.4	14	98.4	15	56.9
NET	TOTAL		8,138	17,510.1	224	947.4	369	47.5
SPEAR		4/7/2010	123	231.8	.	.	5	.
SPEAR		4/8/2010	306	560.0	.	.	14	.
SPEAR		4/9/2010	174	426.2	.	.	23	.
SPEAR		4/10/2010	420	897.3	.	.	46	.
SPEAR	TOTAL		1,023	2,115.3	.	.	88	.
TOTAL	TOTAL		9,161	19,625.4	224	947.4	457	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

TRIBE=MILLE LACS

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		4/1/2010	123	266.2	3	13.2	4	66.6
NET		4/2/2010	636	1,325.4	40	209.4	15	88.4
NET		4/3/2010	296	628.0	32	150.6	16	39.3
NET		4/4/2010	357	831.8	24	145.8	12	69.3
NET		4/5/2010	654	1,355.0	103	437.6	38	35.7
NET		4/6/2010	1,441	2,607.2	96	482.0	65	40.1
NET		4/7/2010	1,553	2,792.8	59	300.8	72	38.8
NET		4/8/2010	2,000	4,079.2	145	722.5	96	42.5
NET		4/9/2010	2,424	5,216.3	127	593.6	143	36.5
NET		4/10/2010	1,973	4,792.7	159	774.8	138	34.7
NET		10/29/2010	12	35.8	2	9.2	3	11.9
NET		10/30/2010	3	5.4	8	49.2	3	1.8
NET		11/3/2010	2	10.4	1	15.8	1	10.4
NET		11/4/2010	3	8.4	.	.	2	4.2
NET		11/5/2010	1	5.6	3	18.2	5	1.1
NET		11/6/2010	2	6.2	2	7.4	4	1.6
NET		11/7/2010	.	.	.	.	2	.
NET		11/8/2010	.	.	2	23.4	1	.
NET		11/9/2010	.	.	.	.	5	.
NET		11/12/2010	1	0.4	.	.	2	0.2
NET		3/17/2011	1	1.2	.	.	2	0.6
NET		3/21/2011	.	.	1	6.2	2	.
NET		3/31/2011	1	1.2	2	11.4	1	0.6
NET	TOTAL		11,481	23,969.2	809	3,971.1	632	38.2
SPEAR		4/1/2010	6	23.0	.	.	3	.
SPEAR		4/2/2010	.	.	.	.	2	.
SPEAR		4/3/2010	44	115.7	.	.	7	.
SPEAR		4/8/2010	70	170.4	.	.	8	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

TRIBE=MILLE LACS
(continued)

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
SPEAR		4/9/2010	90	220.0	.	.	15	.
SPEAR	TOTAL		210	529.1	.	.	35	.
TOTAL	TOTAL		11,691	24,498.3	806	3,971.1	667	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

TRIBE=MOLE LAKE

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		4/5/2010	47	94.6	16	62.4	4	23.7
NET		4/6/2010	78	143.0	2	7.6	4	35.8
NET		4/7/2010	101	195.4	11	66.4	8	24.4
NET		4/8/2010	82	174.2	12	42.2	8	21.8
NET		4/9/2010	362	715.8	1	2.4	12	59.7
NET		4/10/2010	311	794.2	8	47.9	20	39.7
NET		4/11/2010	468	1,074.1	52	185.6	43	25.0
NET		4/12/2010	650	1,508.4	20	84.6	41	36.8
NET		4/13/2010	452	1,114.8	20	104.4	36	31.0
NET		4/14/2010	46	141.2	9	42.6	4	35.3
NET		4/15/2010	51	124.6	11	40.8	4	31.2
NET		4/16/2010	28	61.2	1	4.6	8	7.7
NET		4/17/2010	56	125.2	2	4.8	21	6.0
NET		4/18/2010	58	141.6	2	4.0	22	6.4
NET		4/19/2010	45	105.6	.	.	22	4.8
NET		4/20/2010	67	166.8	.	.	10	16.7
NET		4/21/2010	56	144.4	.	.	10	14.4
NET	TOTAL		2,958	6,825.1	167	700.3	277	24.6
SPEAR		4/11/2010	86	156.2	.	.	6	.
SPEAR		4/13/2010	86	226.2	.	.	20	.
SPEAR	TOTAL		172	382.4	.	.	26	.
TOTAL	TOTAL		3,130	7,207.5	167	700.3	303	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

TRIBE=RED CLIFF

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		4/7/2010	217	355.1	13	51.2	6	59.2
NET		4/8/2010	448	928.9	7	31.6	19	48.9
NET		4/9/2010	1,892	3,787.6	65	276.9	82	46.2
NET		4/10/2010	1,079	2,449.0	46	190.5	70	35.0
NET		4/11/2010	1,340	3,184.8	52	261.7	70	45.5
NET		4/12/2010	299	669.6	10	68.4	18	37.2
NET		4/13/2010	15	28.6	.	.	1	28.6
NET		4/15/2010	5	15.2	5	20.2	1	15.2
NET	TOTAL		5,295	11,418.8	198	900.5	267	42.8
SPEAR		4/8/2010	18	53.9	.	.	3	.
SPEAR		4/11/2010	12	14.6	.	.	3	.
SPEAR	TOTAL		30	68.5	.	.	6	.
TOTAL	TOTAL		5,325	11,487.3	198	900.5	273	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

TRIBE=ST CROIX

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		4/7/2010	440	732	11	49.2	21	34.9
NET		4/8/2010	591	1119.1	37	139.6	39	28.7
NET		4/9/2010	1,015	1950.7	27	98.8	64	30.5
NET		4/10/2010	896	2013	21	117	63	32.0
NET		4/11/2010	1,058	2649.7	48	184.2	62	42.7
NET		4/12/2010	509	1222.6	26	106.9	47	26.0
NET		4/13/2010	385	975	1	3.2	30	32.5
NET		4/14/2010	260	686.8	1	2.4	17	40.4
NET		4/15/2010	116	279.8	1	2	13	21.5
NET		4/16/2010	73	182.8	11	49	19	9.6
NET		4/17/2010	55	132.0	41	169.2	16	8.3
NET	TOTAL		5,398	11943.5	225	921.5	391	30.5
SPEAR		4/12/2010	20	42.7	.	.	2	.
SPEAR	TOTAL		20	42.7	.	.	2	.
TOTAL	TOTAL		5,418	11,986.2	225	921.5	393	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

TRIBE=TOTAL

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		4/1/2010	123	266.2	3	13.2	4	66.6
NET		4/2/2010	636	1,325.4	40	209.4	15	88.4
NET		4/3/2010	296	628.0	32	150.6	16	39.3
NET		4/4/2010	357	831.8	24	145.8	12	69.3
NET		4/5/2010	701	1,449.6	119	500.0	42	34.5
NET		4/6/2010	1,665	2,996.9	101	497.8	76	39.4
NET		4/7/2010	3,564	6,430.9	166	766.6	154	41.8
NET		4/8/2010	9,205	18,002.5	400	1,740.4	422	35.4
NET		4/9/2010	14,314	30,398.5	402	1,771.5	605	40.6
NET		4/10/2010	11,525	27,247.9	391	1,862.1	558	40.4
NET		4/11/2010	4,519	11,027.8	215	887.7	275	40.1
NET		4/12/2010	3,229	7,375.6	117	568.4	227	32.5
NET		4/13/2010	1,982	4,809.7	33	153.0	153	31.4
NET		4/14/2010	728	1,925.8	17	75.8	57	33.8
NET		4/15/2010	553	1,259.0	22	78.2	41	30.7
NET		4/16/2010	313	780.6	21	88.2	56	13.9
NET		4/17/2010	246	594.2	50	199.0	58	10.2
NET		4/18/2010	135	342.4	4	15.4	34	10.1
NET		4/19/2010	92	226.8	.	.	37	6.1
NET		4/20/2010	146	363.6	5	17.4	25	14.5
NET		4/21/2010	120	297.6	6	21.4	25	11.9
NET		4/22/2010	30	66.8	11	46.4	6	11.1
NET		10/29/2010	12	35.8	2	9.2	3	11.9
NET		10/30/2010	3	5.4	8	49.2	3	1.8
NET		11/3/2010	2	10.4	1	15.8	1	10.4
NET		11/4/2010	3	8.4	.	.	2	4.2
NET		11/5/2010	1	5.6	3	18.2	5	1.1
NET		11/6/2010	2	6.2	2	7.4	4	1.6

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

TRIBE=TOTAL
(continued)

GEAR	DATATYPE	DATE	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/NET
NET		11/7/2010	.	.	.	.	2	.
NET		11/8/2010	.	.	2	23.4	1	.
NET		11/9/2010	.	.	.	.	5	.
NET		11/12/2010	1	0.4	.	.	2	0.2
NET		3/17/2011	1	1.2	.	.	2	0.6
NET		3/21/2011	.	.	1	6.2	2	.
NET		3/31/2011	1	1.2	2	11.4	1	1.2
NET	TOTAL		54,505	118,722.2	2,197	9,949.1	2,931	36.3
SPEAR		4/1/2010	6	23	.	.	3	.
SPEAR		4/2/2010	.	.	.	.	2	.
SPEAR		4/3/2010	44	115.7	.	.	7	.
SPEAR		4/7/2010	123	231.8	.	.	5	.
SPEAR		4/8/2010	960	2,213.5	.	.	55	.
SPEAR		4/9/2010	398	1,027.2	.	.	152	.
SPEAR		4/10/2010	594	1294	.	.	68	.
SPEAR		4/11/2010	98	170.8	.	.	9	.
SPEAR		4/12/2010	20	42.7	.	.	2	.
SPEAR		4/13/2010	86	226.2	.	.	20	.
SPEAR		4/20/2010	1	5.0	.	.	2	.
SPEAR	TOTAL		2,330	5,349.9	.	.	325	.
TOTAL	TOTAL		56,835	124,072.1	2,197	9,949.1	3,256	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2010-2011 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

PERIOD	GEAR	WALLEYE NUMBER	WALLEYE POUNDS	NPIKE NUMBER	NPIKE POUNDS	PERMITS	WALLEYE POUNDS/PERMIT
SPRING	NET	54,479	118,647.6	2,179	9,808.3	2,898	40.9
SPRING	SPEAR	2,330	5,349.9	.	.	325	16.5
SPRING	TOTAL	56,809	123,997.5	2,179	9,808.3	3,223	38.5
SUMMER/FALL	NET	24	72.2	18	123.2	28	2.6
SUMMER/FALL	TOTAL	24	72.2	18	123.2	28	2.6
PRE-SPRING	NET	2	2.4	3	17.6	5	0.5
PRE-SPRING	TOTAL	2	2.4	3	17.6	5	0.5

Appendix C. Catch report form: 1837 Minnesota Ceded Territory

CATCH REPORT FORM: MINNESOTA

LAKE	START TIME (am or pm)	<input type="checkbox"/> SPEARING
COUNTY	END TIME (am or pm)	NET ID#
LANDING		LENGTH
PERMIT ISSUE DATE (mm/dd/yy)		MESH

PERMIT #		
NAME		
TRIBAL ID #		

SPECIES			SPECIES			SPECIES			SPECIES		
LENGTH (INCHES)	SEX (M/F/U)	TAG #	LENGTH (INCHES)	SEX (M/F/U)	TAG #	LENGTH (INCHES)	SEX (M/F/U)	TAG #	LENGTH (INCHES)	SEX (M/F/U)	TAG #
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TOTAL WEIGHT (POUNDS)	TOTAL WEIGHT (POUNDS)	TOTAL WEIGHT (POUNDS)	TOTAL WEIGHT (POUNDS)
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MONITORING TEAM

IF NECESSARY USE ADDITIONAL SHEETS TO RECORD SPECIES, LENGTH, SEX, AND AGGREGATE WEIGHT OF ALL FISH HARVESTED BY PERMITTEE

COMMERCIAL PERMIT SHEET ____ OF ____ TRIBE

Appendix D. Number of members/permits per band that speared only, gill-netted only, or speared and gill-netted for one or more nights during spring 2010 in Mille Lacs Lake.

Number of Nights	MIL	FDL	BRV	LCO	LDF	MOL	RCF	STC	TOTAL:	Percent of Total Members**	Cumulative Percent:
Spearing only											
1	4	8			1	2	2		17	89.5%	89.0%
2		2							2	10.5%	100%
Total members	4	10			1	2	2		19	100%	
Total permits	9	21			3	10	4		47		
Gill-netting only											
Number of Nights	MIL	FDL	BRV	LCO	LDF	MOL	RCF	STC	TOTAL:	Percent of Total Members**	Cumulative Percent:
1	40	40	17	8	8	5	12	12	142	28.5%	28.5%
2	53	27	27	11	19	3	5	13	158	31.7%	60.1%
3	33	10	5	7	8	7	11	12	93	18.6%	78.8%
4	22		2	5	13	3	3	7	55	11.0%	89.8%
5	14		2	5		4		2	27	5.4%	95.2%
6	7			1		1		2	11	2.2%	97.4%
7	3			1		1			5	1.0%	98.4%
8	4							1	5	1.0%	99.4%
9			1	1					2	0.4%	99.8%
10									0	0.0%	99.8%
11									0	0.0%	99.8%
12									0	0.0%	99.8%
13									0	0.0%	99.8%
14			1						1	0.2%	100.0%
Total members	176	77	55	39	48	24	31	49	499	100%	
Total permits	550	126	345	380	214	264	257	390	2,526		
Spearing and gill-netting											
Number of Nights	MIL	FDL	BRV	LCO	LDF	MOL	RCF	STC	TOTAL:	Percent of Total Members**	Cumulative Percent:
1		10	1		1		1	1	14	13.3%	13.3%
2	3	31	1		5	1	1		42	40.0%	53.3%
3	1	19	1		7	1			29	27.6%	81.0%
4					11				11	10.5%	91.4%
5	1				3				4	3.8%	95.2%
6									0	0.0%	95.2%
7									0	0.0%	95.2%
8	2								2	1.9%	97.1%
9	1		1						2	1.9%	99.0%
10	1								1	1.0%	100.0%
Total members	9	60	4	0	27	2	2	1	105	100%	
Spearing permits	26	140	7	0	85	16	2	2	278		
Gill net permits	49	101	43	0	155	13	10	1	372		
Grand Total											
	MIL*	FDL	BRV	LCO	LDF	MOL	RCF	STC	TOTAL:		
Members	189	147	59	39	76	28	35	50	623		
spearing permits	35	161	7	0	88	26	6	2	325		
gill-netting permits	599	227	388	380	369	277	267	391	2,898		
total permits	634	388	395	380	457	303	273	393	3,223		

*Also, 28 permits were issued for gill-netting in fall 2010; five (5) gill-netting permits were issued during early spring 2011 (Appendix B).

** Percent of total members that fished the specified number of nights.

Appendix E. Walleye harvest, CPE (catch per unit effort), and number of net lifts for gill netting in Mille Lacs Lake during spring 2010.

Date	Mesh size not noted					1.75 inch (bar)					All Mesh Sizes				
	No. Lifts	Total Number	Total Pounds	CPE: Number/Net-lift	CPE: Pounds/Net-lift	No. Lifts	Total Number	Total Pounds	CPE: Number/Net-lift	CPE: Pounds/Net-lift	No. Lifts	Total Number	Total Pounds	CPE: Number/Net-lift	CPE: Pounds/Net-lift
4/1/2010	4	123	266.2	30.8	66.6						4	123	266.2	30.8	66.6
4/2/2010	15	636	1,325.4	42.4	88.4						15	636	1,325.4	42.4	88.4
4/3/2010	16	296	628.0	18.5	39.3						16	296	628.0	18.5	39.3
4/4/2010	12	357	831.8	29.8	69.3						12	357	831.8	29.8	69.3
4/5/2010	38	654	1,355.0	17.2	35.7	4	47	94.6	11.8	23.7	42	701	1,449.6	16.7	34.5
4/6/2010	63	1,453	2,624.8	23.1	41.7	13	212	372.1	16.3	28.6	76	1,665	2,996.9	21.9	39.4
4/7/2010	115	2,275	4,137.6	19.8	36.0	39	1,289	2,293.3	33.1	58.8	154	3,564	6,430.9	23.1	41.8
4/8/2010	169	2,935	5,817.6	17.4	34.4	340	6,270	12,184.9	18.4	35.8	509	9,205	18,002.5	18.1	35.4
4/9/2010	311	5,946	12,019.0	19.1	38.6	437	8,368	18,379.5	19.1	42.1	748	14,314	30,398.5	19.1	40.6
4/10/2010	288	4,732	10,722.2	16.4	37.2	386	6,793	16,525.7	17.6	42.8	674	11,525	27,247.9	17.1	40.4
4/11/2010	134	2,099	5,074.8	15.7	37.9	141	2,420	5,953.0	17.2	42.2	275	4,519	11,027.8	16.4	40.1
4/12/2010	121	1,504	3,384.0	12.4	28.0	106	1,725	3,991.6	16.3	37.7	227	3,229	7,375.6	14.2	32.5
4/13/2010	65	917	2,217.0	14.1	34.1	88	1,065	2,592.7	12.1	29.5	153	1,982	4,809.7	13.0	31.4
4/14/2010	11	226	552.8	20.5	50.3	46	502	1,373.0	10.9	29.8	57	728	1,925.8	12.8	33.8
4/15/2010						41	553	1,259.0	13.5	30.7	41	553	1,259.0	13.5	30.7
4/16/2010	49	288	713.6	5.9	14.6	7	25	67.0	3.6	9.6	56	313	780.6	5.6	13.9
4/17/2010	32	157	392.8	4.9	12.3	26	89	201.4	3.4	7.7	58	246	594.2	4.2	10.2
4/18/2010						34	135	342.4	4.0	10.1	34	135	342.4	4.0	10.1
4/19/2010						37	92	226.8	2.5	6.1	37	92	226.8	2.5	6.1
4/20/2010						25	146	363.6	5.8	14.5	25	146	363.6	5.8	14.5
4/21/2010	1	8	19.6	8.0	19.6	24	112	278.0	4.7	11.6	25	120	297.6	4.8	11.9
4/22/2010						6	30	66.8	5.0	11.1	6	30	66.8	5.0	11.1
Total	1,444	24,606	52,082.2	17.0	36.1	1,800	29,873	66,565.4	16.6	37.0	3,244	54,479	118,647.6	16.8	36.6

Appendix F. Quota or cap, harvest, and percent of quota or cap harvested by band and overall for five fish species during the 2010-2011 quota year.

Species		BAND								Bands Combined
		Mille Lacs	Fond du Lac	Bad River	Lac Courte Oreilles	Lac du Flambeau	Mole Lake	Red Cliff	St. Croix	
Walleye	Quota (Pounds)	27,000	24,500	12,000	13,700	19,700	11,600	12,000	12,000	132,500
	Pounds Harvested	24,498.3	24,442.7	11,175.8	13,648.9	19,625.4	7,207.5	11,487.3	11,986.2	124,072.1
	Number Harvested	11,693	10,695	4,879	6,534	9,161	3,130	5,325	5,418	56,835
	Percent of Quota Harvested	0.9	99.77%	93.13%	99.63%	99.62%	62.13%	95.73%	99.89%	93.64%
Northern Pike	Cap (Pounds)	6,475	773	863	883	913	751	903	935	12,496
	Pounds Harvested	3,971.1	770.3	860.2	877.8	947.4	700.3	900.5	921.5	9,949.1
	Number Harvested	809	166	190	221	224	167	198	225	2,200
	Percent of Quota Harvested	61.33%	99.65%	99.68%	99.41%	103.77%	93.2%	99.7%	98.56%	79.62%
Yellow Perch	Quota (Pounds)	40,000	2,000	5,714	5,714	10,000	14,000	10,000	10,000	97,428
	Pounds Harvested	65.8	50.2	464	30	159.2	271.8	50.4	93.3	1,184.7
	Number Harvested	88	59	621	43	197	338	63	115	1,524
	Percent of Quota Harvested	0.16%	2.51%	8.12%	0.53%	1.59%	1.94%	0.50%	0.93%	1.22%
Tullibee*	Pounds Harvested	1,367.7	1.4	14.0	21.0	39.4	4.8	19.0	9.4	1,476.7
	Number Harvested	1,442	1	11	12	26	4	13	6	1515
Burbot*	Pounds Harvested	10.5	1.8	11.6	3.0	3.8	6.0	0.0	9.4	46.1
	Number Harvested	3	1	6	2	3	5	0	6	26

*Quotas removed at the January 2008 meeting of the Minnesota 1837 Ceded Territory Fisheries Committee

Appendix G. Length and weight of measured, sexed, and all walleye harvested by gill-netting and spearing in Mille Lacs Lake during the 2010-2011 quota year.

Season	Lake	Gear	Sex	Inch group																											Total Measured By Sex	Total Harvest	Total Length (inches)	Average Length (inches)	Aggregate Weight (pounds)	Average weight (pounds)
				8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30										
Spring 2010	Mille Lacs	Gill net Mesh size not noted	M		1		1		13	92	620	721	373	237	193	69	76	52	14	7	1	2									2,473	2,473	42,290.8	17.1		
			F		1			1	1		8	11	19	35	28	36	62	50	26	24	16	8	2		1						329	329	6,944.8	21.1		
			U					1	3		6	12	9	18	30	23	51	46	18	18	7	3	2							247	247	5,180.4	21.0			
			N/A						2		2	4		1	2		2	2		1									16	21,557	295.2	18.5				
		T		2		1	15	98		636	748	401	291	253	128	191	150	58	50	24	13	4		2				3,065	24,606	54,711.2	17.9	52,082.2	2.1			
Spring 2010	Mille Lacs	Gill net 1.75 mesh	M				1	4	63	440	501	318	220	151	60	57	55	13	6	2	1								1,892	1,892	32,757.0	17.3				
			F					1			15	22	40	102	102	85	123	105	31	32	27	11	5	1	1	1			704	704	14,618.1	20.8				
			U					2	1		9	17	27	36	18	8	18	10	3	2	1	1						153	153	2,893.7	18.9					
			N/A			1								2	1	4	1	1										10	27,124	185.1	18.5					
		T		1	1	6	65		464	540	387	359	275	154	199	170	47	40	30	13	5	1	1	1	1		2,759	29,873	50,453.9	18.3	66,565.4	2.2				
Spring 2010	Mille Lacs	Spear	M	1			1	8	29	128	329	337	293	248	203	81	89	46	23	10	4	3	1					1,834	1,834	32,160.1	17.5					
			F								1	1	4	9	8	21	26	30	33	34	34	28	12	4				245	245	5,729.6	23.4					
			U				1	1	1	5	9	6	5	6	6	3	8	3	1	3	3	1	2				64	64	1,216.8	19.0						
			N/A						3	1	5	7	10	6	12	1	4	4	2	1	1	2						59	187	1,104.2	18.7					
		T	1		2	9	33	134	344	351	312	269	229	106	127	83	59	48	42	34	15	4				2,202	2,330	40,210.7	18.3	5,349.9	2.3					
After spring 2010	Mille Lacs	Gill net 1.75 mesh	M						2			3	1				1										7	7	116.0	16.6						
			F																									7	7	134.7	19.3					
			U			1					1	1	1					1			2							7	7	132.5	18.9					
			N/A					1			1	1	1		1									1				7	7	383.2	18.2	63.8	3.0			
		T			1	1	2		2	5	3	1				2	1		2		1					21	21	383.2	18.2	63.8	3.0					
After spring 2010	Mille Lacs	Gill net Mesh size not noted	M									1															1	1	16.1	16.1						
			F																																	
			U											1														2	4	43.1	21.6					
			N/A																																	
		T									2															3	5	59.2	19.7	10.8	2.2					
Entire Year	Mille Lacs	All gear	M	1	1	1	10	46	285	1,389	1563	985	705	547	210	222	154	50	23	7	6	1						6,207	6,207	107,340	17.3					
			F		1			1	2		24	34	63	146	138	142	211	185	90	90	77	47	19	5	2	1		1,278	1,278	27,293	21.4					
			U			2	1	4	9		25	37	42	60	54	34	77	60	22	23	13	6	4				473	475	9,469	20.0						
			N/A			1	1	3	3		8	12	13	8	19	2	7	6	2	3	1	2	1				92	48,875	1,717	18.7						
		T	1	2	4	12	54	299	1,446	1,646	1,103	919	758	388	517	405	164	139	98	61	25	5	3	1		8,050	56,835	145,818	18.1	124,072.1	2.2					

*F = Female; M = Male; U = Unknown; NA = Measured but not sexed; T = Total

Appendix H. Length and weight of measured, sexed, and all northern pike harvested by gill-netting in Mille Lacs Lake during the 2010-2011 quota year.

Season	Lake	Gear	Sex	Inch group																							Total Measured By Sex	Total Harvest	Total Length (inches)	Average Length (inches)	Aggregate Weight (pounds)	Average Weight (pounds)											
				15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37							38	39	40	41	42	43	44	45			
Spring 2010	Mille Lacs	Gill net Mesh size not noted	M					5	9	16	37	27	39	30	35	14	17	12	12	8	2		1	2											1	270	270	6,617.9	24.5				
			F	1					2	7	15	14	22	28	34	23	19	17	16	12	4	9	8	11	3	2	5	2	2	2						260	260	7,075.5	27.2				
			U					1	17	23	42	68	100	79	78	60	42	45	35	30	22	19	14	5	9	6	8	5									709	709	18,429.1	26			
			N/A						2	2	5	2	4			4	5	3	1	2																		31	140	801.5	25.9		
			T	1				6	28	48	96	114	163	141	147	101	83	77	64	52	28	28	23	18	12	8	16	7	2	3		2	1	1	1,270	1,379	32,924.0	25.9	6,378.0	4.6			
Spring 2010	Mille Lacs	Gill net 1.75 mesh	M		1	1		3	13	28	29	31	32	19	16	9	14	6	8	4			1	2												215	215	5,029.0	23.4				
			F							3	4	15	15	12	16	15	10	12	16	13	4	9	2	3	4	4	3	3									165	165	4,591.8	27.8			
			U		1				3	19	26	42	42	26	24	14	10	8	9	5	8	1	5	1	1	2	2	2	2								251	251	6,220.1	24.8			
			N/A						1	4	2	2	4	2	3			1	2	2	1	1			3	3	1										32	169	872.5	27.3			
			T		2	1		3	17	54	61	90	93	59	59	38	34	27	35	24	13	11	8	4	8	9	4	5	2	2					663	800	16,713.4	25.2	3,430.3	4.3			
After spring 2010	Mille Lacs	Gill net 1.75 mesh	M																																	1	1	28.8	28.8				
			F																																		11	11	319.3	29.0			
			U																																			4	4	118.2	29.6		
			N/A																																								
			T																																	16	16	466.3	29.1	110.0	6.9		
After spring 2010	Mille Lacs	Gill net Mesh size not noted	M																																								
			F																																								
			U																																								
			N/A																																								
			T																																	2	5	57.4	11.5	30.8	6.2		
Entire year	Mille Lacs	All gear	M																																	485	485	11,646.9	24.0				
			F																																		426	426	11,696.1	27.5			
			U																																			973	973	25,025.9	25.7		
			N/A																																			67	316	1,792.2	26.7		
			T	1	2	1		9	45	102	157	204	257	201	208	141	120	107	99	76	42	42	31	22	20	17	21	13	4	5		2	1	1	1,951	2,200	50,161.1	25.7	9,949.1	4.5			

*F = Female; M = Male; NA = Measured but not sexed; T = Total

Appendix I. Length and weight of measured, sexed, and all yellow perch harvested by gill-netting in Mille Lacs Lake during the 2010-2011 quota year.

Season	Lake	Gear	Sex	Inch group								Total Measured By Sex	Total Harvest	Total Length (inches)	Average Length (inches)	Aggregate Weight (pounds)	Average Weight (pounds)			
				6	7	8	9	10	11	12	13							14		
Spring 2010	Mille Lacs	Gillnet Mesh size not noted	M					5	2					7	7	76	10.9			
			F					1	1					2	2	21.9	11			
			U			1		2	4	1					8	8	86.8	10.9		
			N/A				2	11	6	2					21	580	226	10.8		
			T		1	2		19	13	3				38	597	410.7	10.8	467.3	0.8	
Spring 2010	Mille Lacs	Gillnet 1.75 mesh	M				9	70	82	6				167	167	1,823.2	10.9			
			F				3	33	71	31	2				140	140	1,598.3	11.4		
			U	1				9	8	1					19	19	202.9	10.7		
			N/A													601				
			T	1			12	112	161	38	2			326	927	3,624.4	11.1	717.4	0.8	
After spring 2010	Mille Lacs	Gillnet 1.75 mesh	M																	
			F																	
			U										1	1	3	14.0	14.0			
			N/A																	
			T									1	1	3	14.0	14.0	1.4	0.5		
Entire year	Mille Lacs	All gear	M											174	174	1,899.2	10.9			
			F											140	140	1,596.0	11.4			
			U											27	27	289.7	10.7			
			N/A											22	1,174	240.0	10.8			
			T	1	0	1	14	131	174	41	2	1	363	1,527	4,024.9	2.6	1,186.1	0.8		

*F = Female; M = Male; U = Unknown; NA = Measured but not sexed; T = Total

Appendix J. Length and weight of measured, sexed, and all tullibee harvested by gill-netting in Mille Lacs Lake during the 2010-2011 quota year.

Season	Lake	Gear	Sex	Inch group						Total Measured By Sex	Total Harvest	Total Length (inches)	Average Length (inches)	Aggregate Weight (pounds)	Average weight (pounds)
				11	12	13	14	15	16						
Spring 2010	Mille Lacs	Gill net 1.75 mesh	M					1		1	1	15.7	15.7		
			F												
			U	1	1	1	1	2	4	10	10	149.0	14.9		
			N/A								10				
			T	1	1	1	1	3	4	11	21	164.7	15.0	30.8	1.5
Spring 2010	Mille Lacs	Gill net Mesh size not noted	M												
			F												
			U												
			N/A				1	1		2	57	29.9	15.0		
			T			1	1		2	57	29.9	15.0	84.2	1.5	
After spring 2010	Mille Lacs	Gill net 1.75 mesh	M												
			F												
			U		5	6	5	4		20	20	276.5	13.8		
			N/A	1	8	3	3	2	2	19	1,211	256.8	13.5		
			T	1	13	9	8	6	2	39	1,231	533.3	13.7	1,142.7	0.9
After spring 2010	Mille Lacs	Gill net Mesh size not noted	M						1	1	1	16.2	16.2		
			F												
			U												
			N/A	2	23	16	6	3	4	54	205	719.9	13.3		
			T	2	23	16	6	3	5	55	206	736.1	13.4	219.0	1.1
Entire year	Mille Lacs	All gear	M					1	1	2	2	31.9	16.0		
			F								0				
			U	1	6	7	6	6	4	30	30	425.5	14.2		
			N/A	3	31	19	10	6	6	75	1,483	1,006.6	13.4		
			T	4	37	26	16	13	11	107	1,515	1,464.0	13.7	1,476.7	1.0

*F = Female; M = Male; U = Unknown; NA = Measured but not sexed; T = Total

Appendix K. Length and weight of measured, sexed, and all burbot harvested by gill-netting in Mille Lacs Lake during the 2010-2011 quota year.

Season	Lake	Gear	Sex	Inch group	Total Measured By Sex	Total Harvest	Total Length (inches)	Average Length (inches)	Aggregate Weight (pounds)	Average weight (pounds)
				24						
Spring 2010	Mille Lacs	Gill net Mesh size not noted	M							
			F							
			U	1	1	1	24.0	24.0		
			N/A			16				
			T	1	1	17	24.0	24.0	32.2	1.9
Spring 2010	Mille Lacs	Gill net 1.75 mesh	M							
			F							
			U							
			N/A			9				
			T			9			13.9	1.5
Entire year	Mille Lacs	All gear	M							
			F							
			U	1	1	1	24.0	24.0		
			N/A			25				
			T	1	1	26	24.0	24.0	46.1	1.8

*F = Female; M = Male; U = Unknown; NA = Measured but not sexed; T = Total