



**Open-Water Spearing and Netting
in the 1837 Minnesota Ceded Territory
During the 2008-2009 Quota Year**

By

Samuel B. Michaels
Fisheries Biologist

Jennifer Krueger
Database Manager

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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 2008-2009 quota-year was the eleventh year that open-water spear and net fishing was conducted by eight Ojibwa Bands in the 1837 Minnesota ceded territory. A total of 480 Band members participated in the fishery. Mille Lacs was the only lake that received spearing or netting effort. A total of 54,613 fish weighing 102,766 pounds were harvested. Walleye represented 86% of the total catch (46,825 fish; 88,189 pounds). Other species harvested included 1,776 northern pike (8,620 pounds), 4,700 yellow perch (3,780 pounds), 421 burbot (757 pounds), and 190 tullibee (267 pounds). Most of the harvest occurred during spring, which included 46,650 walleye weighing 87,792 pounds and 1,738 northern pike weighing 8,295 pounds. During spring, more walleye were taken by gill-netting (44,290 fish; 82,638 pounds) than by spearing (2,360 fish; 5,154 pounds). Overall, average length was 17.9 inches for walleye and 27.0 inches for northern pike; average weight was 1.9 and 4.9 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 2008-2009 quota year which ran from April 1, 2008 through March 31, 2009. Mille Lacs was the only lake with harvest and effort. Most of the harvest and effort occurred in Mille Lacs Lake on 27 days out of a 51 day period in the spring of 2008 (April 5-May 25) (Appendices A and B). Additional harvest occurred during 12 days in the fall (September 23 – November 17), and on 5 days in early spring 2009 (March 20 – March 28).

Eight Chippewa bands actively participated in the 2008-2009 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 103,431 pounds of fish including 87,041 pounds of walleye were taken (Krueger et al. 2009).

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 was set at 122,500 pounds for the 2008-2009 quota year, 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 Level¹, 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.

¹ 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 26. The catch rate value was increased to 45 pounds of walleye per net on April 27, and then reduced again to 40 pounds on April 28, 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 and otoliths were collected for aging.

The system for managing harvest was modified for the 2008-2009 quota year. An on-line Google.docs spreadsheet was developed for entering, proofing and tracking harvest and effort data. Number and pounds of walleye and northern pike and other permit data were entered and the Google.docs application updated the individual tribal quota and cap, respectively for these two species in "real time". This on-line system was shared with select tribal representatives and GLIFWC staff. During spring 2008, 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.

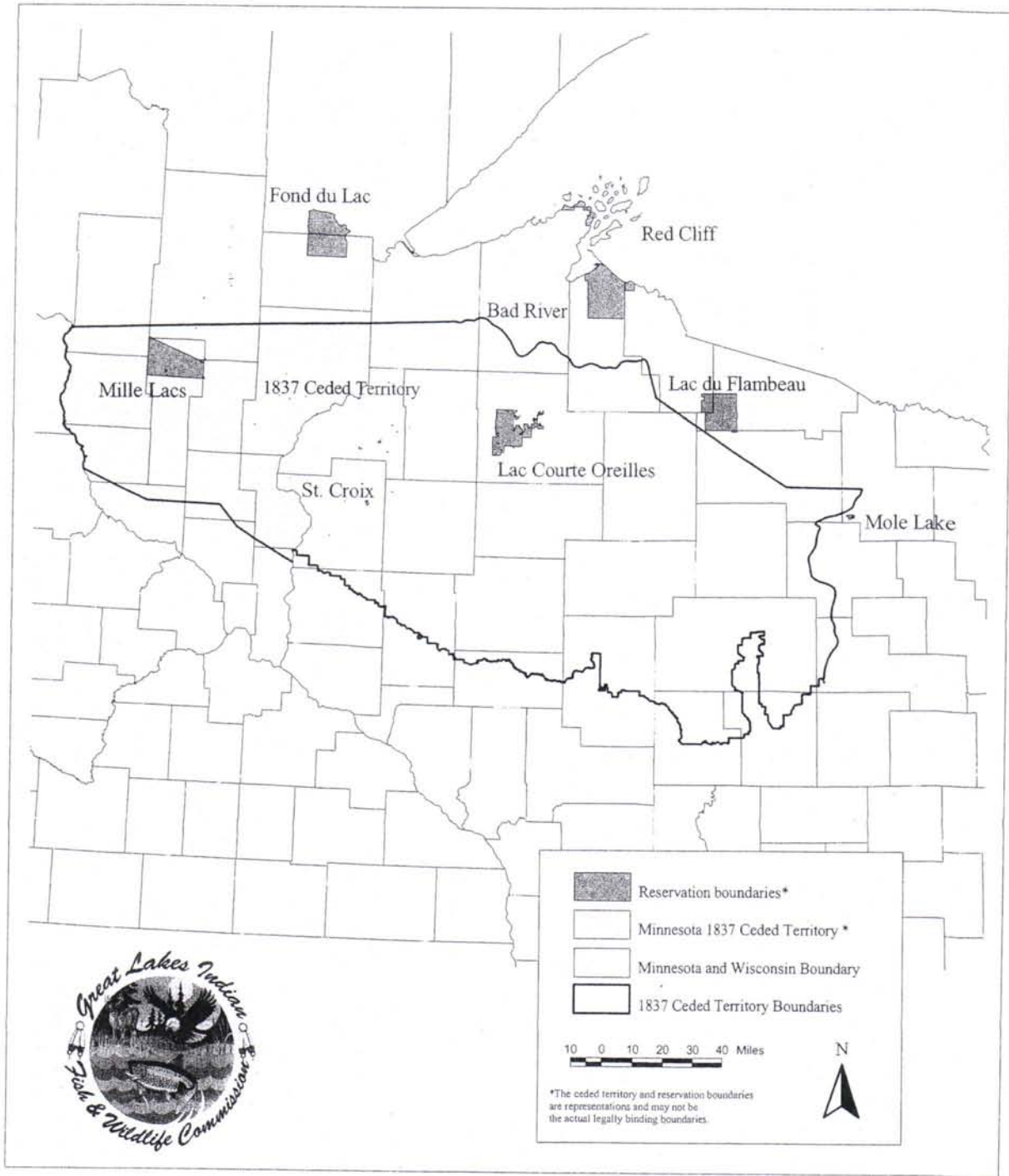
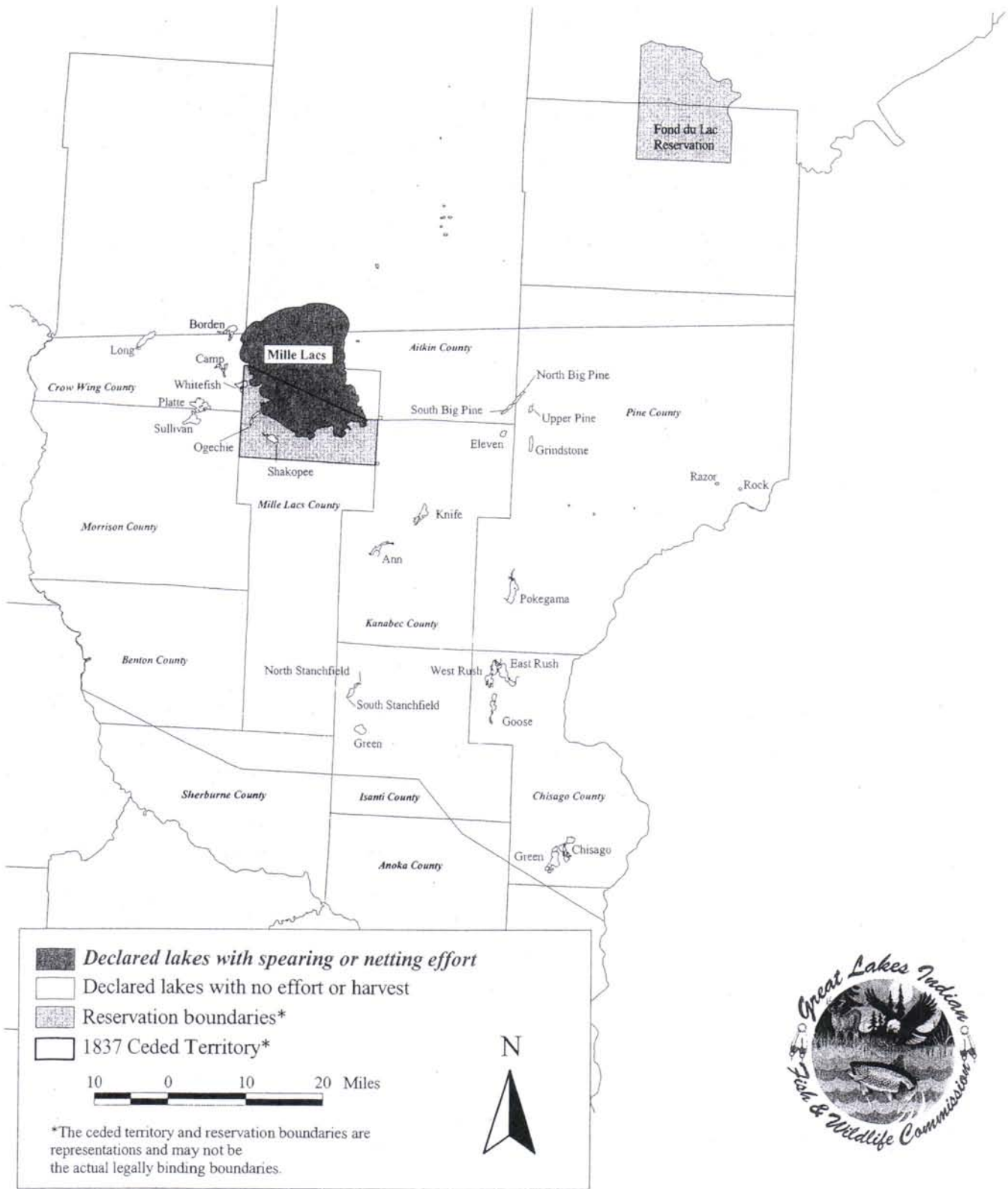


Figure 2. Lakes declared for harvest in the 1837 Minnesota Ceded Territory during the 2008-2009 quota year.



28	29	30	31	Month _____	1	2	3	4	5	
27	Off-Reservation Treaty Fishing Permit								6	
26	<input type="checkbox"/>	Spearing	<input type="checkbox"/>	Fyke Netting						7
	<input type="checkbox"/>	Seining	<input type="checkbox"/>	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
Walleye	_____	_____	_____	_____	_____
Northern Pike	_____	_____	_____	_____	_____
Yellow Perch	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

BACK

Figure 3. Treaty fishing permit used during the 2008-2009 tribal quota year.

RESULTS AND DISCUSSION

FISHING EFFORT

NUMBER OF PARTICIPANTS

A total of 480 tribal members speared, netted, or speared and netted during the 2008 spring fishery in Minnesota (Table 1; Appendix D); 28% were Mille Lacs Band members, 22% were Fond du Lac Band members, and 50% were from the six Wisconsin bands combined. Compared to spring 2007, the total number of participants decreased by 115 persons or 19%. Three bands had members who netted during fall 2008: Mille Lacs (9 members), Fond du Lac (1 member), and Lac du Flambeau (6 members). One band netted in early spring 2009: Mille Lacs (6 members).

Table 1. Number of tribal members from eight Chippewa bands who speared, netted, or speared and netted in Mille Lacs Lake during the 2008 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	3	9	0	0	5	1	1	0	19
Netting Only	119	51	49	40	36	13	16	42	366
Spearing and Netting	14	46	0	0	30	2	3	0	95
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 2,748 permits were used during spring 2008 (Table 2, Appendix B), an 11% decrease from the 2007 spring season. More netting permits (2,389) were used than spearing permits (359). Of the total permits, 21% were used by Mille Lacs Band members, 19% by Lac du Flambeau Band members, and 59% of the permits by the remaining six bands. After the 2008 spring season, three bands had members who fished. For fall netting, Mille Lacs issued 58 permits, Fond du Lac issued one permit and Lac du Flambeau issued 12 permits. For spring 2009 netting, Mille Lacs issued 10 permits.

Table 2. Number of permits used by eight Chippewa bands during spring 2008.

Gear	Mille Lacs	Fond du Lac	Bad River	Lac Courte Oreilles	Lac du Flambeau	Mole Lake	Red Cliff	St. Croix	Total
Netting *	549	243	268	401	399	141	129	259	2,389
Spearing	37	180	0	0	132	6	4	0	359
2008 Total:	586	423	268	401	531	147	133	259	2,748
Percent of 2008 Total:	21%	15%	10%	15%	19%	5%	5%	9%	
2007 Total	592	674	255	252	489	270	160	410	3,102
2006 Total	495	317	227	208	321	137	51	232	1,988
2005 Total	448	460	243	263	272	176	161	271	2,294
2004 Total	364	489	197	188	289	178	139	245	2,089
2003 Total	438	560	121	172	182	97	79	220	1,869
2002 Total	462	443	97	114	188	132	50	216	1,702
2001 Total	397	274	70	66	89	65	27	93	1,082
2000 Total	441	193	94	67	93	42	28	111	1,069
1999 Total	328	188	54	44	45	47	33	52	794
1998 Total	198	155	43	30	36	0	15	33	510

* Number of permits is less than the number of net-lifts for three tribes. A total of 3 partially recovered nets are not included in the permit count for Mille Lacs (1 instance) and Lac du Flambeau (2 instances). 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 259 less than the net-lift count.

NUMBER OF DAYS FISHED

Spearing or netting effort occurred on 44 dates during the 2008-2009 quota year (Appendix A). Spearing effort occurred in Mille Lacs Lake on 14 dates while netting occurred on 27 dates during a 51 day period in spring (April 5 to May 25). During the remainder of the quota year, netting occurred in Mille Lacs Lake on 12 dates in the fall (September 23 through November 17) and on five dates during early spring 2009 (March 20 through March 28).

NUMBER OF BOAT-HOURS

A total of 396.5 boat-hours of spearing effort occurred at Mille Lacs Lake during spring 2008 (Table 3). Three tribes accounted for nearly all of this effort: Fond du Lac (53% of the total), Lac du Flambeau (27.5%), and Mille Lacs (18%). No spearing effort occurred after spring 2008.

Table 3. Number of spearing boat-hours by eight Chippewa bands during the 2008-2009 quota year.

Year	Mille Lacs	Fond du Lac	Bad River	Lac Courte Oreilles	Lac du Flambeau	Mole Lake	Red Cliff	St. Croix	Total
2008	71.7	209.5	0.0	0.0	109.1	3.6	2.6	0.0	396.5
Percent of 2008 Total	18.1%	52.8%	0.0%	0.0%	27.5%	0.9%	0.7%	0.0%	100.0%
2007	110.5	406.6	46.5	5.1	86.6	25.3	12.4	16.0	709.1
2006	52.0	83.2	10.4	7.8	104.0	11.7	11.7	6.5	287.3
2005	52.3	238.5	15.1	2.3	45.8	0.0	0.0	16.3	370.3
2004	20.3	247.4	3.8	0.0	17.8	6.3	5.5	2.9	303.9
2003	47.4	243.9	11.9	0.0	31.2	2.0	0.0	5.2	341.6
2002	48.7	257.2	1.5	0.0	35.5	7.0	6.5	15.3	371.6
2001	54.9	190.8	15.0	9.0	11.1	8.3	0.0	1.0	290.0
2000	96.8	163.0	6.3	0.0	34.6	0.0	0.0	23.5	324.1
1999	106.9	233.2	8.5	0.0	10.4	7.8	6.4	9.6	382.8
1998	56.0	156.5	15.5	23.6	23.6	0.0	23.1	21.6	319.9

NUMBER OF NET-LIFTS

A total of 2,738 net-lifts occurred in Mille Lacs Lake during the 2008-2009 quota year, of which 2,651 lifts occurred in spring 2008 (Table 4, Appendix E). Most nets that were set during spring 2008 (96%) were 1.75 inch mesh gill-nets. A total of 87 net-lifts occurred in Mille Lacs Lake by Mille Lacs, Fond du Lac, and Lac du Flambeau Band Members after spring 2008. Effort occurred during fall and early spring 2009 with 1.75 gill-net mesh used most often.

Table 4. Number of net-lifts by eight Chippewa bands during the 2008-2009 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 2008	Not noted	19	0	11	5	31	17	17	0	100
Spring 2008	1.25	3	0	0	0	0	0	0	0	3
Spring 2008	1.75	528	502	257	396	370	124	112	259	2,548
Spring sub-total:		550	502	268	401	401	141	129	259	2,651
Fall 2008	Not noted	0	0	0	0	4	0	0	0	4
Fall 2008	1.75	58	7	0	0	8	0	0	0	73
Early Spring 2008	1.75	10	0	0	0	0	0	0	0	10
After Spring sub-total:		68	7	0	0	12	0	0	0	87
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

* Fond du Lac Band members were authorized to set more than one net under a single permit which accounts for the 259 count difference between number of permits and number of net-lifts.

HARVEST

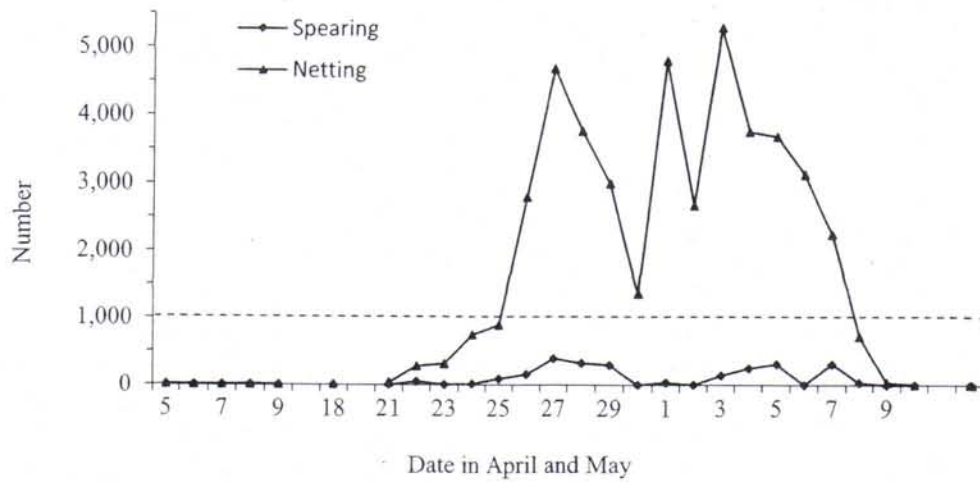
A total of 54,613 fish (102,765.5 pounds) representing 15 taxa were harvested from Mille Lacs Lake (Table 5). The majority of harvested fish were walleye, which comprised 46,825 fish and 88,189 pounds or 86% of both the total harvest and the total weight. Northern pike and yellow perch were the only two other species to exceed 1,000 pounds of harvest. A total of 8,620.3 pounds of northern pike, 8% of the overall weight, and 3,779.5 pounds of yellow perch, 4% of the overall weight, were harvested. Harvest exceeded 200 pounds for three other species: burbot, sucker, and tullibee. For five of these six species with more than 200 pounds harvested, a greater percent of the total weight was harvested during spring 2008 than after. For tullibee, a greater percent was taken in fall than during spring 2008.

During spring 2008 walleye harvest exceeded 1,000 fish or 1,000 pounds or both, for 15 consecutive days from April 24 to May 8 (Figures 4 and 5, Appendix E). The majority of walleye harvested during spring 2008 were taken with gill-nets (82,638 pounds) compared to spears (5,154 pounds) (Appendix B).

Table 5. Number and pounds of fish harvested in Mille Lacs Lake during and after spring 2008.

Species	Spring 2008		After Spring 2008*		Total		Percent Total weight captured during Spring
	Number	Pounds	Number	Pounds	Number	Pounds	
Walleye	46,650	87,792.1	175	397.0	46,825	88,189.1	99.5%
Northern Pike	1,738	8,294.7	38	325.6	1,776	8,620.3	96.2%
Yellow Perch	4,674	3,762.9	26	16.6	4,700	3,779.5	99.6%
Burbot	418	751.4	3	5.8	421	757.2	99.2%
Sucker	342	666.6	3	3.8	345	670.4	99.4%
Tullibee	30	37.3	160	229.9	190	267.2	14.0%
Muskellunge	9	131.2			9	131.2	
Smallmouth Bass	77	106.1	7	11.3	84	117.4	90.4%
Largemouth Bass	2	4.0			2	4.0	
Bass Sp.	21	22.5	1	0.4	22	22.9	98.3%
Rock Bass	162	103.5	9	7.0	171	110.5	93.7%
Crappie Sp.	32	20.7			32	20.7	
Sunfish	1	0.4	1	0.4	2	0.8	50.0%
Bullhead	27	44.4			27	44.4	
Bowfin	6	20.1			6	20.1	
Carp	1	9.8			1	9.8	
Total	54,190	101,767.7	423	997.8	54,613	102,765.5	99.0%

a)



b)

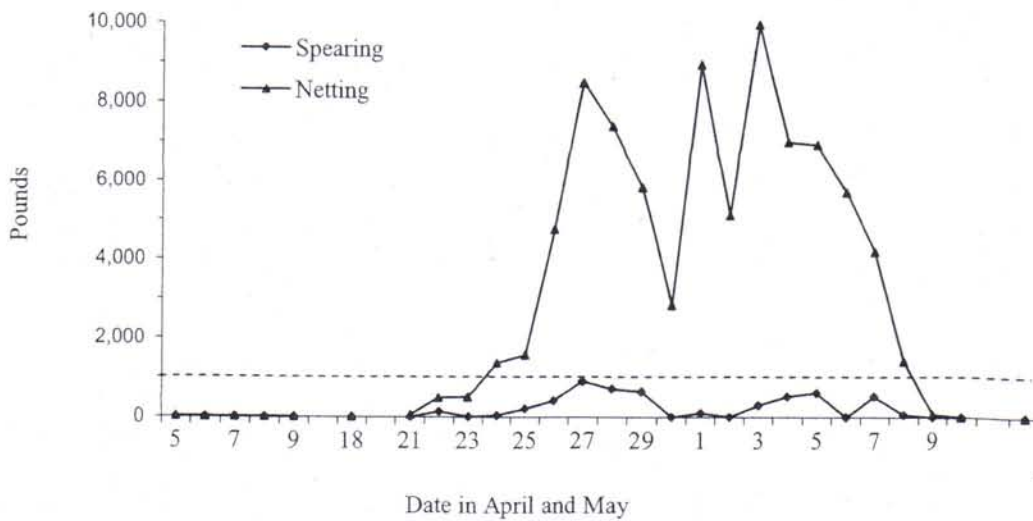


Figure 4. Number (a) and pounds (b) of walleye harvested daily at Mille Lacs Lake by spearing and netting during spring 2008.

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 2008-2009 quota year, 72% of the 122,500 pound quota for walleye, 69% of the 12,496 pound cap for northern pike, and 3.9% 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 396.5 boat-hours of spearing occurred during spring 2008 in which 2,360 walleye weighing 5,154.2 pounds were speared (Table 3, Appendix B). Overall catch per effort (total harvest / total boat-hours) for walleye during spring was 6 fish and 13 pounds per boat-hour. No spearing occurred after spring 2008.

A total 2,738 net-lifts were recorded during the 2008-2009 quota year in which 44,465 walleye weighing 83,034.9 pounds were caught (Table 4). Overall catch per effort (CPE) was 16.2 walleye and 30.3 pounds per net-lift. During spring 2008, a total of 2,651 net-lifts were recorded in which 44,290 walleye weighing 82,637.9 pounds were taken (Appendices B and E); CPE was 16.7 walleye and 31.2 pounds per net-lift (Figures 5 and 6). The majority of net-lifts (2,548) during spring 2008 were of 1¾ (bar) mesh; CPE for this catch was 16.8 walleye and 31.3 pounds per net-lift.

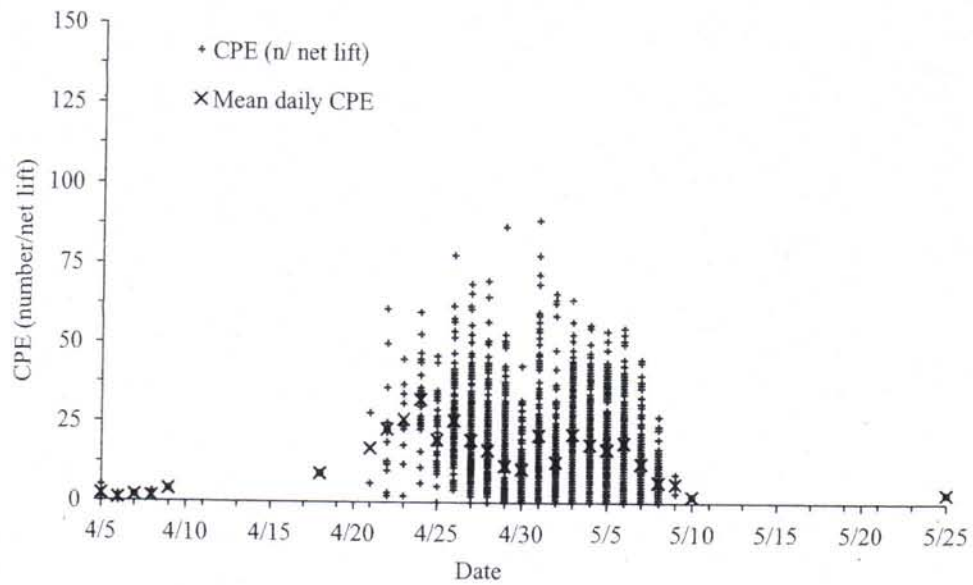


Figure 5. Gill-net catch per effort (CPE) in numbers for walleye harvested from Mille Lacs Lake during spring 2008. Average number per net lift = 16.7 fish.

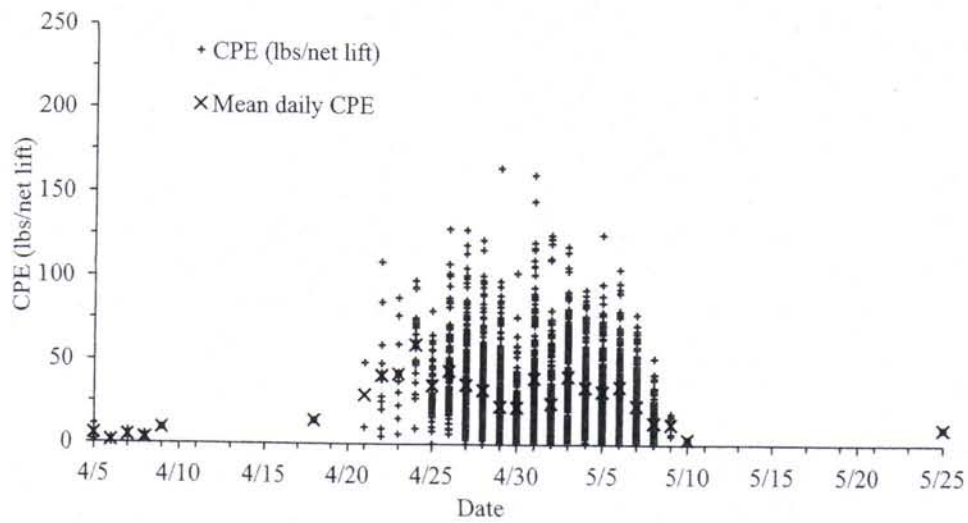


Figure 6. Gill-net catch per effort (CPE) in pounds for walleye harvested from Mille Lacs Lake during spring 2008. Average pounds per net lift = 31.2 pounds.

WALLEYE MEAN LENGTH AND WEIGHT

Length (inches) was measured for a total of 7,930 walleye, 17% of the total walleye harvest, and aggregate weight was recorded for all 46,825 walleye harvested (Appendices B and G, Table 5, Figure 7). Mean length of measured walleye was 17.9 inches and mean weight for all walleye was 1.9 pounds. During spring 2008, both for all walleye netted and for walleye netted with 1¾ inch mesh, mean length of measured fish was 17.7 inches and mean weight was 1.9 pounds. For speared walleye during spring 2008, mean length of measured fish was 18.4 inches and mean weight was 2.2 pounds.

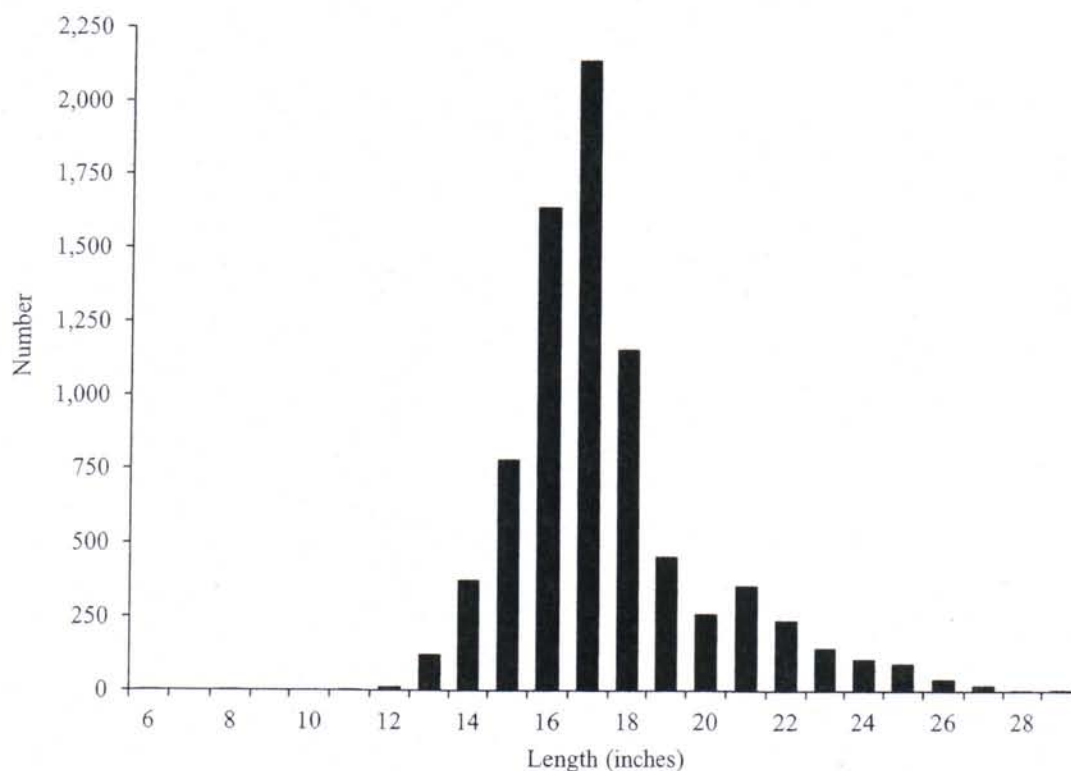


Figure 7. Length frequency of measured walleye in Mille Lacs Lake during the 2008-2009 quota year (N = 7,930; mean length = 17.9 inches).

SEX COMPOSITION OF THE WALLEYE CATCH

A total of 7,863 walleye were measured and sexed during the 2008-2009 quota year (Appendix G). The majority (82%) were male, with 14% female, and 4% unknown sex. During spring 2008, percentages for walleye netted with 1 3/4 mesh were 87% male, 11% female, and 1% unknown sex; the male: female sex ratio was 8:1. Percentages for speared walleye were 73% male, 24% female, and 3% unknown sex; the male: female sex ratio was 3:1.

Overall mean length was 17.4 inches for male and 20.5 inches for female walleye (Figure 8, Appendix G). Respective mean lengths for male and female walleye during spring 2008 were: 17.4 and 19.7 inches for 1 3/4 inch mesh net and 17.4 and 21.5 inches for spearing (Figure 9).

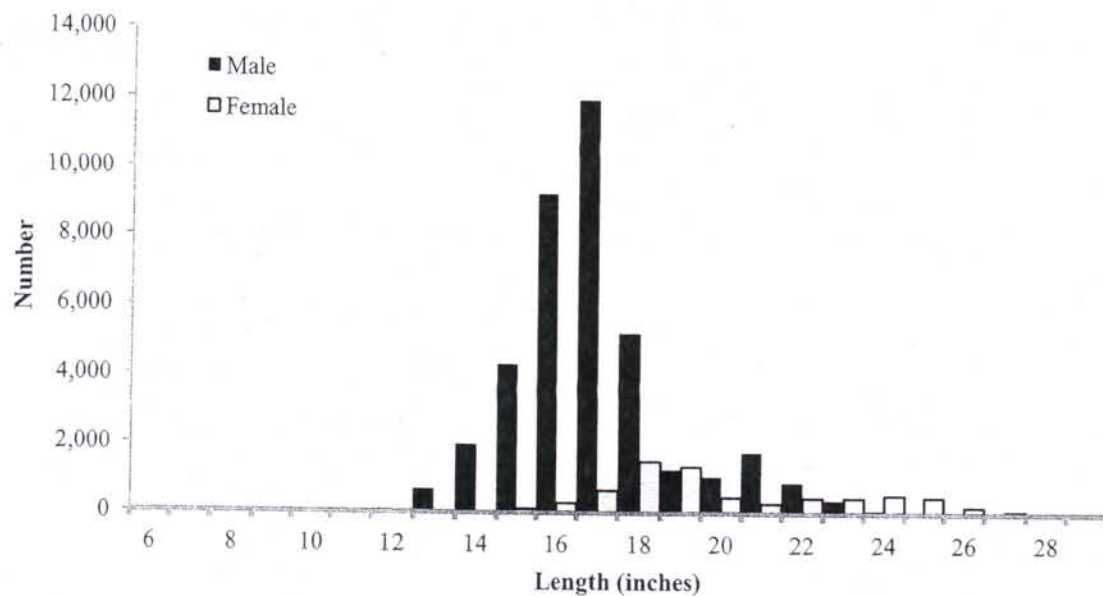
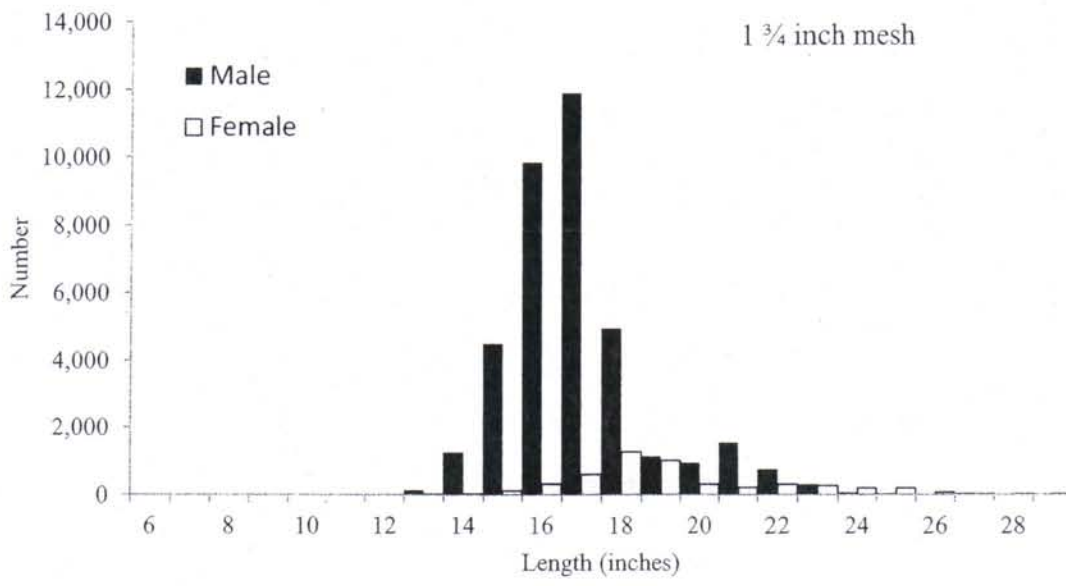


Figure 8. Estimated number of male and female walleye harvested per inch group during spring 2008.

a)



b)

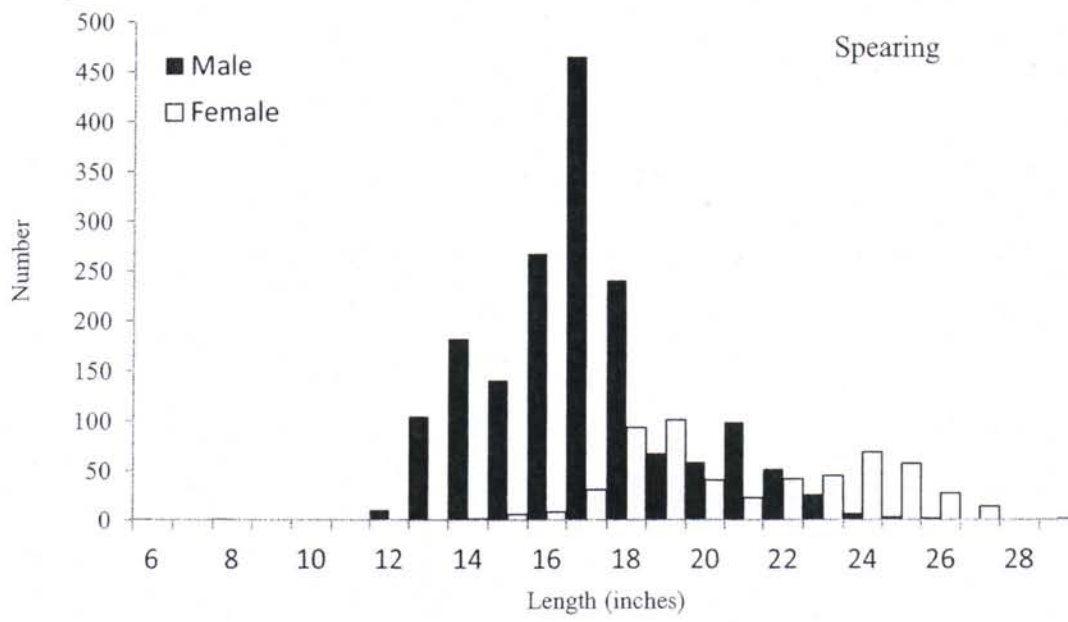


Figure 9. Estimated number of male and female walleye harvested per inch group with 1 3/4 inch (bar mesh) gill-nets (a) and by spearing (b) from Mille Lacs Lake during spring 2008.

NORTHERN PIKE HARVEST

A total of 1,776 northern pike weighing 8,620.3 pounds were harvested from Mille Lacs Lake during the 2008-2009 quota year (Appendix H). Overall mean weight was 4.9 pounds. Most northern pike were harvested with 1¾ inch mesh gill nets (1,724 fish, 8,352.7 pounds) and most were harvested during spring 2008 (1,687 fish, 8,054.3 pounds). Mean weight for both these samples was 4.8 pounds. A total of 1,599 northern pike were measured; mean length was 27.0 inches (Figure 10). A total of 1,550 northern pike were sexed: 36% were male, 34% female, and 30% unknown sex. Average length was 25.3 inches for males and 28.5 inches for females. Sixty-nine (69) percent of the northern pike quota was harvested (Appendix F).

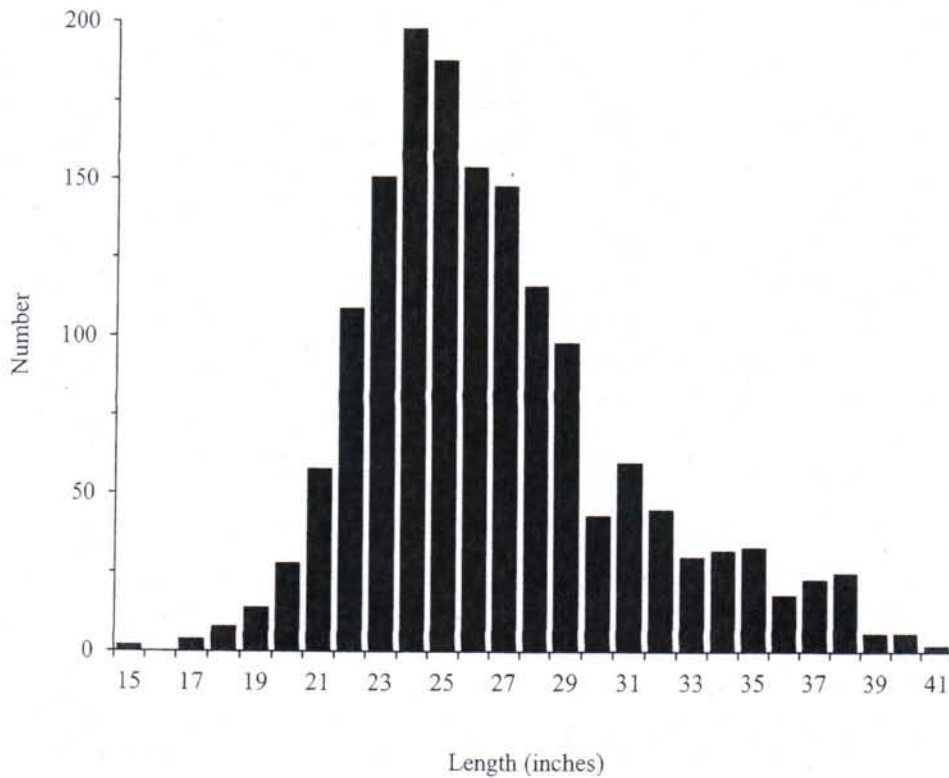


Figure 10. Length frequency of measured northern pike harvested from Mille Lacs Lake during the 2008-2009 quota year (N = 1,599; mean length = 27.0 inches).

YELLOW PERCH HARVEST

A total of 4,700 yellow perch weighing 3,779.5 pounds were harvested from Mille Lacs Lake during the 2008-2009 quota year (Appendix I). Overall mean weight was 0.8 pounds. For the 135 yellow perch measured, mean length was 11 inches (Figure 11). The majority of yellow perch (98%) were harvested during spring 2008 in 1¾ inch mesh gill-nets. A total of 117 yellow perch were sexed: 14% were male, 63% female, and 23% unknown sex. Mean length was 10.6 inches for males and 11.0 inches for females. Of the total yellow perch quota, 3.9% was harvested (Appendix F).

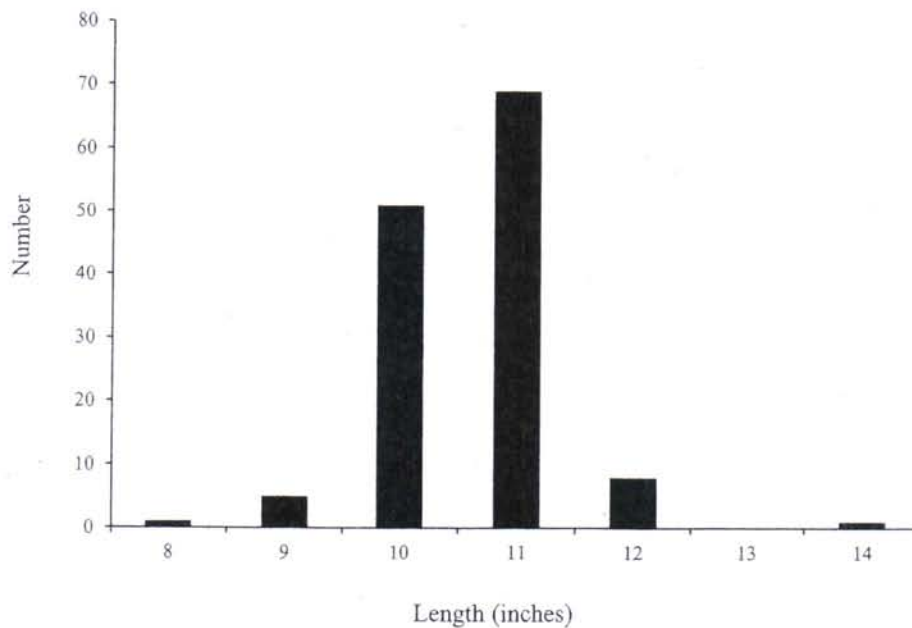


Figure 11. Length frequency of measured yellow perch harvested from Mille Lacs Lake during the 2008-2009 quota year (N = 135; mean length = 11.0 inches).

TULLIBEE HARVEST

A total of 190 tullibee (or cisco or lake herring) weighing 267.2 pounds was harvested from Mille Lacs Lake during the 2008-2009 quota year; mean length and weight were 14.8 inches and 1.4 pounds (Figure 12; Appendix J). The majority of tullibee (84%) was taken in fall 2008 in 1¾ mesh inch gill-nets.

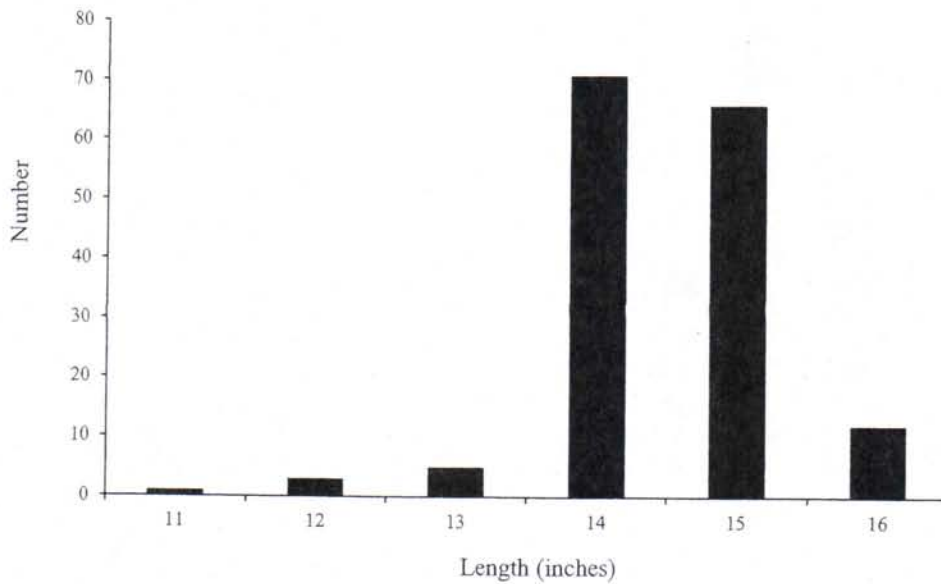


Figure 12. Length frequency of measured tullibee harvested from Mille Lacs Lake during the 2008-2009 quota year (N = 158; mean length = 14.8 inches).

BURBOT HARVEST

A total of 421 burbot weighing 757.2 pounds was harvested from Mille Lacs Lake; mean weight was 1.8 pounds (Appendix K). The majority of burbot (88.8%) were taken during spring 2008 in 1¼ inch gill-nets. Thirty burbot were measured with an average length of 17.8 inches (Figure 13).

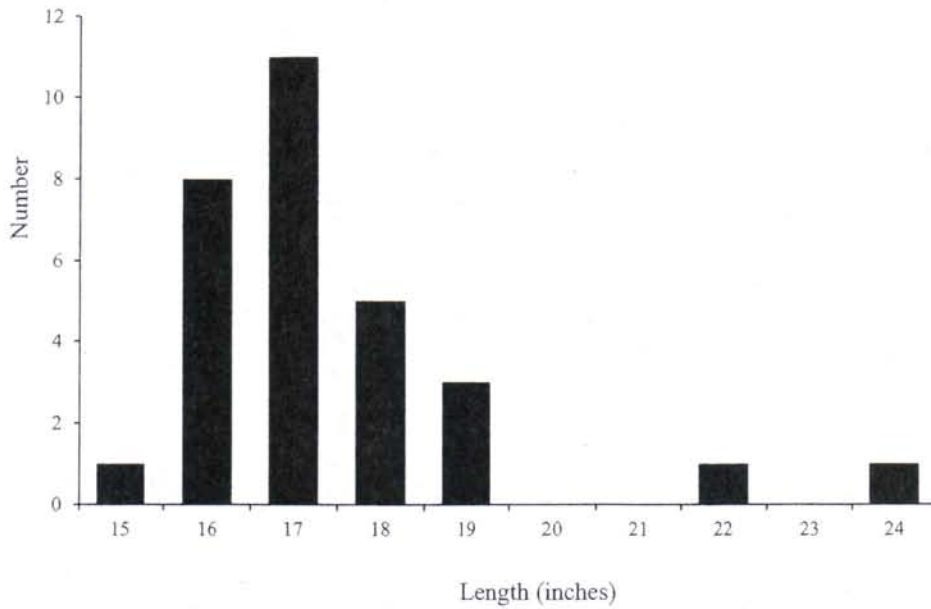


Figure 13. Length frequency of measured burbot harvested from Mille Lacs Lake during the 2008-2009 quota year (N = 30; mean length = 17.8 inches).

ACKNOWLEDGMENTS

The authors extend a "Miigwech" to everyone that assisted with monitoring the fishery. We would like to thank Leanne Thannum and Kim Campy 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, we thank tribal fisheries biologists, tribal wardens, fisheries technicians, and creel clerks who helped to compile harvest data each day. We also appreciate the tribal members who fished and patiently allowed the monitoring of the catch. We thank Neil Kmiecik for editing this report.

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Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

----- TRIBE=BAD RIVER -----

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	12,000.0	803.0
REVISED QUOTA	12,000.0	890.4
HARVEST	-9,260.6	-890.4
BALANCE	2,739.4	-0.0

----- TRIBE=FOND DU LAC -----

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	20,000.0	803.0
REVISED QUOTA	20,000.0	803.0
HARVEST	-18,099.4	-710.1
BALANCE	1,900.6	92.9

----- TRIBE=LAC COURTE OREILLES -----

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	12,000.0	803.0
REVISED QUOTA	13,205.0	803.0
HARVEST	-13,157.0	-779.4
BALANCE	48.0	23.6

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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	17,500.0	803.0
REVISED QUOTA	17,500.0	803.0
HARVEST	-14,292.8	-530.8
BALANCE	3,207.2	272.2

----- TRIBE=MILLE LACS -----

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	25,000.0	6,875.0
REVISED QUOTA	25,000.0	6,875.0
HARVEST	-17,811.0	-4,366.6
BALANCE	7,189.0	2,508.4

----- TRIBE=MOLE LAKE -----

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	12,000.0	803.0
REVISED QUOTA	10,795.0	715.6
HARVEST	-4,934.4	-294.4
BALANCE	5,860.6	421.2

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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	803.0
HARVEST	-4,393.2	-272.1
BALANCE	7,606.8	530.9

----- TRIBE=ST CROIX -----

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	12,000.0	803.0
REVISED QUOTA	12,000.0	803.0
HARVEST	-6,240.7	-776.5
BALANCE	5,759.3	26.5

----- TRIBE=TOTAL -----

VALUE	WALLEYE	NORTHERN PIKE
INITIAL QUOTA	122,500.0	12,496.0
REVISED QUOTA	122,500.0	12,496.0
HARVEST	-88,189.1	-8,620.3
BALANCE	34,310.9	3,875.7

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/25/2008	191	320.0	2	21.0	7	45.7
NET		04/26/2008	213	368.9	2	9.0	7	52.7
NET		04/27/2008	314	576.4	3	12.0	14	41.2
NET		04/28/2008	73	140.2	.	.	5	28.0
NET		04/29/2008	312	552.2	6	28.2	11	50.2
NET		04/30/2008	75	149.6	7	21.6	9	16.6
NET		05/01/2008	933	1,717.0	6	38.4	38	45.2
NET		05/02/2008	728	1,424.6	31	145.4	43	33.1
NET		05/03/2008	403	762.4	23	134.0	23	33.1
NET		05/04/2008	792	1,420.4	8	39.8	33	43.0
NET		05/05/2008	387	795.4	19	94.6	29	27.4
NET		05/06/2008	177	313.0	29	132.2	9	34.8
NET		05/07/2008	207	381.4	9	33.6	17	22.4
NET		05/08/2008	154	267.7	27	157.0	17	15.7
NET		05/09/2008	36	71.4	6	23.6	6	11.9
NET	TOTAL	.	4,995	9,260.6	178	890.4	268	34.6
TOTAL	TOTAL	.	4,995	9,260.6	178	890.4	268	34.6

APPENDIX B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/25/2008	133	263.5	.	.	9	29.3
NET		04/26/2008	605	1,000.8	1	1.4	11	35.7
NET		04/27/2008	1,400	2,488.0	7	44.0	41	30.7
NET		04/28/2008	677	1,366.5	10	58.8	31	22.0
NET		04/29/2008	219	482.8	1	9.4	24	11.2
NET		05/01/2008	1,218	2,288.7	10	29.2	25	43.2
NET		05/02/2008	575	1,086.5	13	66.5	25	22.2
NET		05/03/2008	1,861	3,398.2	36	159.0	35	44.7
NET		05/04/2008	820	1,478.6	27	139.2	21	36.1
NET		05/05/2008	658	1,258.6	26	127.2	15	31.5
NET		05/06/2008	235	446.6	11	41.8	4	40.6
NET		05/07/2008	38	75.5	.	.	1	18.9
NET		05/08/2008	26	60.0	.	.	1	12.0
NET		10/18/2008	27	78.8	5	33.6	1	11.3
NET	TOTAL	.	8,492	15,773.1	147	710.1	244	31.0
SPEAR		04/25/2008	79	185.5	.	.	15	.
SPEAR		04/26/2008	154	410.1	.	.	31	.
SPEAR		04/27/2008	114	319.2	.	.	33	.
SPEAR		04/28/2008	34	88.4	.	.	8	.
SPEAR		04/29/2008	123	276.8	.	.	20	.
SPEAR		05/01/2008	33	99.9	.	.	12	.
SPEAR		05/03/2008	131	279.2	.	.	22	.
SPEAR		05/04/2008	165	353.0	.	.	23	.
SPEAR		05/05/2008	150	314.2	.	.	16	.
SPEAR	TOTAL	.	983	2,326.3	.	.	180	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

----- TRIBE=FOND DU LAC -----
(continued)

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
TOTAL	TOTAL		9,475	18,099.4	147	710.1	424	35.6

----- TRIBE=LAC COURTE OREILLES -----

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/24/2008	273	480.0	2	8.2	6	80.0
NET		04/25/2008	174	328.6	3	16.2	9	36.5
NET		04/26/2008	176	278.8	.	.	8	34.8
NET		04/27/2008	377	649.6	3	15.4	11	59.1
NET		04/28/2008	308	592.8	1	4.2	13	45.6
NET		04/29/2008	645	1,235.2	4	19.4	34	36.3
NET		04/30/2008	262	567.0	17	77.2	36	15.8
NET		05/01/2008	944	1,687.0	11	60.6	46	36.7
NET		05/02/2008	644	1,167.0	18	104.6	50	23.3
NET		05/03/2008	1,009	1,947.2	11	45.8	47	41.4
NET		05/04/2008	634	1,213.5	24	129.6	46	26.4
NET		05/05/2008	677	1,259.8	30	124.8	37	34.0
NET		05/06/2008	589	1,096.6	15	92.4	27	40.6
NET		05/07/2008	329	617.9	7	36.6	25	24.7
NET		05/08/2008	15	36.0	7	44.4	6	6.0

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

----- TRIBE=LAC COURTE OREILLES -----
 (continued)

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET	TOTAL	.	7,056	13,157.0	153	779.4	401	32.8
TOTAL	TOTAL	.	7,056	13,157.0	153	779.4	401	32.8

----- TRIBE=LAC DU FLAMBEAU -----

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/27/2008	1,280	2,374.2	11	43.4	74	32.1
NET		04/28/2008	2,010	3,942.9	7	63.0	103	37.6
NET		04/29/2008	687	1,438.3	17	72.4	93	15.5
NET		04/30/2008	662	1,394.4	10	48.0	45	31.0
NET		05/01/2008	351	730.0	21	96.2	20	36.5
NET		05/02/2008	112	217.6	4	22.7	8	27.2
NET		05/03/2008	341	650.8	9	40.2	10	65.1
NET		05/04/2008	342	642.2	8	27.4	11	58.4
NET		05/05/2008	79	151.2	2	5.7	8	18.9
NET		05/07/2008	124	239.0	15	67.4	21	11.4
NET		05/08/2008	11	23.0	6	44.4	6	3.8
NET		09/26/2008	11	35.4	.	.	12	2.9
NET	TOTAL	.	6,010	11,839.0	110	530.8	411	28.7
SPEAR		04/27/2008	261	544.4	.	.	33	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

----- TRIBE=LAC DU FLAMBEAU -----
(continued)

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
SPEAR		04/28/2008	284	616.0	.	.	37	.
SPEAR		04/29/2008	120	248.6	.	.	15	.
SPEAR		05/04/2008	80	163.2	.	.	8	.
SPEAR		05/05/2008	156	301.0	.	.	16	.
SPEAR		05/07/2008	307	523.0	.	.	21	.
SPEAR		05/08/2008	30	57.6	.	.	2	.
SPEAR	TOTAL	.	1,238	2,453.8	.	.	132	.
TOTAL	TOTAL	.	7,248	14,292.8	110	530.8	543	34.6

----- TRIBE=MILLE LACS -----

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/05/2008	7	16.6	10	65.0	3	5.5
NET		04/06/2008	2	2.7	5	24.4	2	1.4
NET		04/07/2008	4	9.4	11	53.2	2	4.7
NET		04/08/2008	5	9.2	2	6.4	3	3.1
NET		04/09/2008	4	9.2	2	6.4	1	9.2
NET		04/18/2008	9	13.8	6	34.4	1	13.8
NET		04/21/2008	34	58.2	4	15.8	2	29.1
NET		04/22/2008	276	489.4	30	148.8	12	40.8

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/23/2008	312	500.9	60	238.6	12	41.7
NET		04/24/2008	305	592.8	20	88.8	12	49.4
NET		04/25/2008	195	312.0	3	15.8	6	52.0
NET		04/26/2008	327	591.4	10	36.8	11	53.8
NET		04/27/2008	188	336.2	11	45.2	10	33.6
NET		04/28/2008	349	660.4	42	198.4	22	30.0
NET		04/29/2008	709	1,312.0	53	252.6	36	36.4
NET		04/30/2008	96	192.0	37	197.2	12	16.0
NET		05/01/2008	595	1,090.5	10	34.6	25	43.6
NET		05/02/2008	414	763.7	38	247.0	39	19.6
NET		05/03/2008	1,433	2,722.4	110	481.6	72	37.8
NET		05/04/2008	871	1,665.2	85	413.2	50	33.3
NET		05/05/2008	885	1,661.4	86	377.8	47	35.3
NET		05/06/2008	1,123	1,994.2	102	459.2	58	34.4
NET		05/07/2008	766	1,483.7	86	417.6	63	23.6
NET		05/08/2008	321	678.0	44	212.4	47	14.4
NET		05/10/2008	2	3.0	1	3.4	.	3.0
NET		05/25/2008	3	9.4	.	.	1	9.4
NET		09/23/2008	5	7.4	.	.	1	7.4
NET		10/10/2008	28	64.0	2	19.0	4	16.0
NET		10/11/2008	13	29.0	.	.	3	9.7
NET		10/12/2008	4	8.6	.	.	1	8.6
NET		10/16/2008	7	19.0	1	6.6	4	4.8
NET		10/17/2008	19	45.4	2	11.4	13	3.5

APPENDIX D. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		10/24/2008	12	21.8	3	21.2	4	5.5
NET		10/31/2008	41	74.6	7	67.8	20	3.7
NET		11/07/2008	2	2.0	5	40.2	7	0.3
NET		11/17/2008	0	0.0	.	.	1	0.0
NET		03/20/2009	1	0.6	1	11.2	2	0.3
NET		03/21/2009	0	0.0	1	27.2	1	0.0
NET		03/22/2009	1	1.4	.	.	1	1.4
NET		03/27/2009	0	0.0	10	80.2	3	0.0
NET		03/28/2009	4	9.0	1	7.2	3	3.0
NET	TOTAL		9,372	17,460.5	901	4,366.6	617	28.3
SPEAR		04/22/2008	48	138.0	.	.	9	.
SPEAR		04/23/2008	1	4.0	.	.	2	.
SPEAR		04/24/2008	10	35.0	.	.	6	.
SPEAR		04/25/2008	5	14.2	.	.	1	.
SPEAR		04/27/2008	7	21.0	.	.	3	.
SPEAR		04/28/2008	3	5.9	.	.	3	.
SPEAR		04/29/2008	49	116.4	.	.	10	.
SPEAR		05/03/2008	7	16.0	.	.	3	.
SPEAR	TOTAL		130	350.5	.	.	37	.
TOTAL	TOTAL		9,502	17,811.0	901	4,366.6	654	28.8

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/24/2008	164	288.6	2	9.6	5	57.7
NET		04/25/2008	112	192.2	6	28.8	7	27.5
NET		04/26/2008	419	701.4	4	15.2	16	43.8
NET		04/27/2008	445	858.4	21	90.8	14	61.3
NET		04/28/2008	81	162.4	2	8.0	4	40.6
NET		04/29/2008	102	211.0	9	34.6	14	15.1
NET		04/30/2008	221	446.4	6	20.2	21	21.3
NET		05/01/2008	266	503.4	13	67.0	21	24.0
NET		05/02/2008	58	116.4	.	.	8	14.6
NET		05/03/2008	156	287.6	.	.	8	36.0
NET		05/04/2008	138	254.6	.	.	8	31.8
NET		05/05/2008	263	473.2	.	.	8	59.2
NET		05/06/2008	244	422.8	5	20.2	7	60.4
NET	TOTAL	.	2,669	4,918.4	68	294.4	141	34.9
SPEAR		04/25/2008	3	9.5	.	.	3	.
SPEAR		04/27/2008	3	6.5	.	.	3	.
SPEAR	TOTAL	.	6	16.0	.	.	6	.
TOTAL	TOTAL	.	2,675	4,934.4	68	294.4	147	35.0

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/25/2008	81	149.8	6	21.8	7	21.4
NET		04/26/2008	1,058	1,812.2	9	52.0	39	46.5
NET		04/27/2008	688	1,204.8	17	87.9	36	33.5
NET		04/28/2008	225	432.4	2	8.6	9	48.0
NET		04/29/2008	272	495.0	6	29.0	16	30.9
NET		04/30/2008	43	84.0	3	8.8	5	16.8
NET		05/01/2008	21	46.0	2	8.6	4	11.5
NET		05/07/2008	87	161.4	9	55.4	13	12.4
NET	TOTAL		2,475	4,385.6	54	272.1	129	34.0
SPEAR		04/27/2008	3	7.6	.	.	4	.
SPEAR	TOTAL		3	7.6	.	.	4	.
TOTAL	TOTAL		2,478	4,393.2	54	272.1	133	34.1

----- TRIBE=ST CROIX -----

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/28/2008	47	87.8	1	3.4	9	9.8
NET		04/29/2008	54	104.4	1	3.4	12	8.7
NET		05/01/2008	482	881.4	3	17.8	20	44.1
NET		05/02/2008	150	329.0	10	55.8	13	25.3
NET		05/03/2008	98	188.4	5	25.4	11	17.1

APPENDIX D. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

----- TRIBE=ST CROIX -----
(continued)

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		05/04/2008	166	316.4	3	13.2	18	17.6
NET		05/05/2008	741	1,326.2	21	96.0	52	25.5
NET		05/06/2008	769	1,431.9	40	155.3	55	26.0
NET		05/07/2008	701	1,229.8	50	270.2	40	30.7
NET		05/08/2008	188	345.4	31	136.0	29	11.9
NET	TOTAL		3,396	6,240.7	165	776.5	259	24.1
TOTAL	TOTAL		3,396	6,240.7	165	776.5	259	24.1

----- TRIBE=TOTAL -----

GEAR	DATATYPE	DATE	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/05/2008	7	16.6	10	65.0	3	5.5
NET		04/06/2008	2	2.7	5	24.4	2	1.4
NET		04/07/2008	4	9.4	11	53.2	2	4.7
NET		04/08/2008	5	9.2	2	6.4	3	3.1
NET		04/09/2008	4	9.2	2	6.4	1	9.2
NET		04/18/2008	9	13.8	6	34.4	1	13.8
NET		04/21/2008	34	58.2	4	15.8	2	29.1
NET		04/22/2008	276	489.4	30	148.8	12	40.8
NET		04/23/2008	312	500.9	60	238.6	12	41.7

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		04/24/2008	742	1,361.4	24	106.6	23	59.2
NET		04/25/2008	886	1,566.1	20	103.6	45	34.8
NET		04/26/2008	2,798	4,753.5	26	114.4	92	43.6
NET		04/27/2008	4,692	8,487.6	73	338.7	200	35.4
NET		04/28/2008	3,770	7,385.4	65	344.4	196	32.3
NET		04/29/2008	3,000	5,830.9	97	449.0	240	22.5
NET		04/30/2008	1,359	2,833.4	80	373.0	128	22.1
NET		05/01/2008	4,810	8,944.0	76	352.4	199	39.4
NET		05/02/2008	2,681	5,104.8	114	642.0	186	24.3
NET		05/03/2008	5,301	9,957.0	194	886.0	206	40.3
NET		05/04/2008	3,763	6,990.9	155	762.4	187	33.8
NET		05/05/2008	3,690	6,925.8	184	826.1	196	31.3
NET		05/06/2008	3,137	5,705.1	202	901.1	160	34.2
NET		05/07/2008	2,252	4,188.7	176	880.8	180	22.9
NET		05/08/2008	715	1,410.1	115	594.2	106	12.8
NET		05/09/2008	36	71.4	6	23.6	6	11.9
NET		05/10/2008	2	3.0	1	3.4	.	3.0
NET		05/25/2008	3	9.4	.	.	1	9.4
NET		09/23/2008	5	7.4	.	.	1	7.4
NET		09/26/2008	11	35.4	.	.	12	2.9
NET		10/10/2008	28	64.0	2	19.0	4	16.0
NET		10/11/2008	13	29.0	.	.	3	9.7
NET		10/12/2008	4	8.6	.	.	1	8.6
NET		10/16/2008	7	19.0	1	6.6	4	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 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
NET		10/17/2008	19	45.4	2	11.4	13	3.5
NET		10/18/2008	27	78.8	5	33.6	1	11.3
NET		10/24/2008	12	21.8	3	21.2	4	5.5
NET		10/31/2008	41	74.6	7	67.8	20	3.7
NET		11/07/2008	2	2.0	5	40.2	7	0.3
NET		11/17/2008	0	0.0	.	.	1	0.0
NET		03/20/2009	1	0.6	1	11.2	2	0.3
NET		03/21/2009	0	0.0	1	27.2	1	0.0
NET		03/22/2009	1	1.4	.	.	1	1.4
NET		03/27/2009	0	0.0	10	80.2	3	0.0
NET		03/28/2009	4	9.0	1	7.2	3	3.0
NET	TOTAL		44,465	83,034.9	1776	8,620.3	2470	30.3
SPEAR		04/22/2008	48	138.0	.	.	9	.
SPEAR		04/23/2008	1	4.0	.	.	2	.
SPEAR		04/24/2008	10	35.0	.	.	6	.
SPEAR		04/25/2008	87	209.2	.	.	19	.
SPEAR		04/26/2008	154	410.1	.	.	31	.
SPEAR		04/27/2008	388	898.7	.	.	76	.
SPEAR		04/28/2008	321	710.3	.	.	48	.
SPEAR		04/29/2008	292	641.8	.	.	45	.
SPEAR		05/01/2008	33	99.9	.	.	12	.
SPEAR		05/03/2008	138	295.2	.	.	25	.
SPEAR		05/04/2008	245	516.2	.	.	31	.
SPEAR		05/05/2008	306	615.2	.	.	32	.

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 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 (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/NUMBER OF NETS
SPEAR		05/07/2008	307	523.0	.	.	21	.
SPEAR		05/08/2008	30	57.6	.	.	2	.
SPEAR	TOTAL	.	2,360	5,154.2	.	.	359	.
TOTAL	TOTAL	.	46,825	88,189.1	1776	8,620.3	2829	32.2

Appendix B. Number and pounds of walleye and northern pike harvested by eight Chippewa Bands (combined and separately) from Mille Lacs Lake during the 2008-2009 quota year. Data are sorted by season (spring and after spring), by harvest method (spearing or netting) and by date.

PERIOD	GEAR	WALLEYE (#)	WALLEYE (LBS)	NPIKE (#)	N PIKE (LBS)	PERMITS	WALLEYE (LBS)/PERMIT
SPRING	NET	44,290	82,637.9	1,738	8,294.7	2389	34.6
SPRING	SPEAR	2,360	5,154.2	.	.	359	14.4
SPRING	TOTAL	46,650	87,792.1	1,738	8,294.7	2748	31.9
SUMMER/FALL	NET	169	386.0	25	199.8	71	5.4
SUMMER/FALL	TOTAL	169	386.0	25	199.8	71	5.4
PRE-SPRING	NET	6	11.0	13	125.8	10	1.1
PRE-SPRING	TOTAL	6	11.0	13	125.8	10	1.1

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 #
1											
2											
3											
4											
5											
6											
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25											
26											
27											
28											
29											
30											

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 and permits per band that speared, gill-netted, or speared and gill-netted for one or more nights during spring 2008 in Mille Lacs Lake.

Number of Nights	MIL	FDL	BRV	LCO	LDF	MLK	RCF	STC	Total	Percent of Total Members **	Cumulative Percent
Spearing Only											
1	2	6			2	1			11	57.9%	57.9%
2	1				3	1			5	26.3%	84.2%
3		1							1	5.3%	89.5%
4		1							1	5.3%	94.7%
5		1							1	5.3%	100.0%
Total Members	3	9			5	1	1		19	100%	
Total Permits	4	30			11	2	1		48		
Gill-Netting Only											
Number of Nights	MIL	FDL	BRV	LCO	LDF	MLK	RCF	STC	Total	Percent of Total Members **	Cumulative Percent
1	46	19	25	8	3	4	9	16	130	35.5%	35.5%
2	24	11	15	17	16	3	6	4	96	26.2%	61.7%
3	15	10	3	6	12	2	1	12	61	16.7%	78.4%
4	16	6	2	3	3			7	37	10.1%	88.5%
5	3	2	3	2	1	3		3	17	4.6%	93.2%
6	4	1		3		1			9	2.5%	95.6%
7	3		1		1				5	1.4%	97.0%
8	1	2		1					4	1.1%	98.1%
9	4								4	1.1%	99.2%
10										0.0%	99.2%
11	1								1	0.3%	99.5%
12	1								1	0.3%	99.7%
13	1								1	0.3%	100.0%
Total Members	119	51	49	40	36	13	16	42	366	100%	
Total Permits	481	132	268	401	185	135	105	259	1,966		
Spearing and Gill-Netting											
Number of Nights	MIL	FDL	BRV	LCO	LDF	MLK	RCF	STC	Total	Percent of Total Members **	Cumulative Percent
1	1	14			1	2	1		17	17.9%	17.9%
2	2	13			7				24	25.3%	43.2%
3	2	5			8				15	15.8%	58.9%
4	2	2			6		2		12	12.6%	71.6%
5	4	8			7				19	20.0%	91.6%
6		1							1	1.1%	92.6%
7		2							2	2.1%	94.7%
8					1				1	1.1%	95.8%
9	3	1							4	4.2%	100%
Total Members	14	46			30	2	3		95	100%	
Spearing Permits	33	150			121	4	3		311		
Gill-Netting Permits	68	111			214	6	24		423		
Total Permits	101	261			335	10	27		734		
Grand Total											
	MIL	FDL	BRV	LCO	LDF	MLK	RCF	STC	Total		
Members	136	106	49	40	71	16	20	42	480		
Spearing Permits	37	180			132	6	4		359		
Gill-Netting Permits	549	243	268	401	399	141	129	259	2,389		
Total Permits	586	423	268	401	531	147	133	259	2,748		

* Also, 71 permits were issued for gill-netting in fall 2008, and 10 permits were issued for gill-netting in early spring 2009 (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 Laes Lake during spring 2008.

Date	mesh size not noted				1.25 inch mesh (bar)				1.75 inch mesh (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	No. Lifts	Total Number	Total Pounds	CPE: Number/Net-Lift	CPE: Pounds/Net-Lift	
4/5/2008																					
4/6/2008																					
4/7/2008																					
4/8/2008	2	2	4.0	1.0	2.0																
4/9/2008																					
4/18/2008																					
4/21/2008	2	34	58.2	17.0	29.1																
4/22/2008	2	32	68.6	16.0	34.3																
4/23/2008																					
4/24/2008																					
4/25/2008	13	240	416	18.5	32.0	3	125	203.0	41.7	67.7											
4/26/2008	13	359	580.0	27.6	44.6																
4/27/2008	24	477	848.2	19.9	35.3																
4/28/2008	4	70	149.5	17.5	37.4																
4/29/2008	31	146	276.4	4.7	8.9																
4/30/2008																					
5/1/2008	3	52	92.8	17.3	30.9																
5/2/2008	4	32	60.8	8.0	15.2																
5/3/2008	1	0	0.0	0.0	0.0																
5/4/2008																					
5/5/2008																					
5/6/2008																					
5/7/2008																					
5/8/2008																					
5/9/2008																					
5/10/2008	1	2	3.0	2.0	3.0																
5/25/2008																					
Total	100	1,446	2,558	14.5	25.6	3	125	203.0	41.7	67.7	2,548	42,719	79,877.2	16.8	31.3	2,651	44,290	82,637.9	16.7	31.2	

Appendix F. Quota or cap, harvest, and percent of quota or cap harvested by band and overall for five fish species during the 2008-2009 quota year.

Species	BAND										Bands Combined
	Mille Lacs Lacs	Fond du Lac	Bad River	Lac Courte Oreilles	Lac du Flambeau	Mole Lake	Red Cliff	St. Croix			
Walleye	Quota (Pounds)	25,000	20,000	12,000	13,205	17,500	10,795	12,000	12,000	122,500	
	Pounds Harvested	17,811.0	18,099.4	9,260.6	13,157.0	14,292.8	4,934.4	4,393.2	6,240.7	88,189.1	
	Number Harvested	9,502	9,475	4,995	7,056	7,248	2,675	2,478	3,396	46,825	
	Percent of Quota Harvested	71.2%	90.5%	77.2%	99.6%	81.7%	45.7%	36.6%	52.0%	72.0%	
Northern Pike	Cap (Pounds)	6,875	803	890.4	803	803	715.6	803	803	12,496	
	Pounds Harvested	4,366.6	710.1	890.4	779.4	530.8	294.4	272.1	776.5	8,620.3	
	Number Harvested	901	147	178	153	110	68	54	165	1,776	
	Percent of Quota Harvested	63.5%	88.4%	100.0%	97.1%	66.1%	41.1%	33.9%	96.7%	69.0%	
Yellow Perch	Quota (Pounds)	40,000	2,000	5,714	5,714	10,000	14,000	10,000	10,000	97,428	
	Pounds Harvested	644.7	233.1	643.7	920.3	572.0	260.5	118.5	386.7	3,779.5	
	Number Harvested	808	301	811	1,159	761	340	147	373	4,700	
	Percent of Quota Harvested	1.6%	11.7%	11.3%	16.1%	5.7%	1.9%	1.2%	3.9%	3.9%	
Tullibee*	Pounds Harvested	233.1	2.7	4.2	13.2	4.4	0.0	0.0	9.6	267.2	
	Number Harvested	161	4	4	10	4	0	0	7	190	
Burbot*	Pounds Harvested	90.6	134.9	81.8	119.8	181.3	50.0	69.6	29.2	757.2	
	Number Harvested	51	74	41	66	107	28	38	16	421	

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

Appendix I. Length frequency and average weight of yellow perch harvested by gill net and spearing in Mille Lacs Lake during the 2008-2009 quota year.

Time of Year	Gear & Mesh	Sex*	Inch Group										Total Measured	Total Harvest	Total Length (Inches)	Mean Length (Inches)	Aggregate Weight (Pounds)	Mean Weight (Pounds)
			8	9	10	11	12	13	14									
Spring 2008	Gill-net Mesh Size Not noted	M			1	2						3	3	33.4	11.1			
		F		3	12	3						18	18	203.6	11.3			
		U		1								1	1	10.4	10.4			
		NA		1	1							2	56	21.4	10.7			
		T		6	15	3						24	78	268.8	11.2	62.0	0.8	
Spring 2008	Gill-net 1.75	M	1		10	2						13	13	136.6	10.5			
		F		3	22	30	1					56	56	613.1	10.9			
		U				1						1	1	11.3	11.3			
		NA		1	8	7						16	4,523	171.9	10.7			
		T		1	4	40	1					86	4,593	932.9	10.8	3,699.4	0.8	
Spring 2008	Spears	N/A																
Fall 2008	Gill-net 1.75	U		1	5	14	4				1	25	25	282.9	11.3			
		NM										1	1					
Total 2008	All Gear	M	1		11	4					16	16	170.0	10.6				
		F		3	25	42	4				74	74	816.7	11.0				
		U		1	6	15	4			1	27	27	304.6	11.3				
		NA		1	9	8					18	4,583	193.3	10.7				
		T	1	5	51	69	8			1	135	4,700	1,484.6	11.0	3,779.5	0.8		

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

Appendix J. Length frequency and average weight of tullibee harvested by gill-netting (by mesh) in Mille Lacs Lake during the 2008-2009 quota year.

Time of Year	Gear & Mesh	Inch Group										Total Measured	Total Harvest	Total Length (Inches)	Mean Length (Inches)	Aggregate Weight (Pounds)	Mean Weight (Pounds)
		Sex*	11	12	13	14	15	16									
Spring 2008	Gill-net 1.75	NM											30				
		T											30		37.3	1.2	
Fall 2008	Gill-net 1.75	U	1	3	5	71	66	12				158	158	2,340.0	14.8		
		NM											2				
Entire Year	All Gear	T	1	3	5	71	66	12				158	160	2,340.0	14.8	229.9	1.4
		NM											32				
		T	1	3	5	71	66	12				158	190	2,340.0	14.8	267.2	1.4

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

Appendix K. Length frequency and average weight of burbot harvested by gill-netting (by mesh) and spearing in Mille Laacs Lake during the 2008-2009 quota year.

Time of Year	Gear & Mesh	Sex*	Inch Group												Total Measured	Total Harvest	Total Length (Inches)	Mean Length (Inches)	Aggregate Weight (Pounds)	Mean Weight (Pounds)	
			15	16	17	18	19	20	21	22	23	24									
Spring 2008	Gill-net Mesh Size Not noted	U	1	1	5	3	1				1				12	12	215.6	18.0			
		NA	2												2	30	33.1	16.6			
		T	1	3	5	3	1				1				14	42	248.7	17.8	64.5	1.5	
Spring 2008	Gill-net 1.75	U	3	3	1	2								9	9	158.2	17.6				
		NA	2	2	1									5	365	86.0	17.2				
		T	5	5	2	2								14	374	244.2	17.4	682.7	1.8		
Spring 2008 Fall 2008	Spear	NM													2						
		T													2				4.2	2.1	
Spring & Fall 2008	Gill-net 1.75	U			1									2	2	41.5	20.8				
		NM													1						
		T			1									2	3	41.5	20.8	5.8	1.9		
Spring & Fall 2008	All Gear	U	1	4	9	4	3				1			23	23	415.3	18.1				
		NA	4	2	1									7	398	119.1	17.0				
		T	1	8	11	5	3				1			30	421	534.4	17.8	757.2	1.8		

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

