

2018 Spring Fishing Harvest Summary
1837 & 1854 Ceded Territories, Including Mille Lacs
Fond du Lac Band of Lake Superior Chippewa

Summary prepared for the Ceded Territory & On-Reservation Conservation Committees
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Organizational Planning:

Declarations: Declarations for walleye harvest were made on a total of 6 lakes within the 1837 Ceded Territory of Minnesota and 15 lakes in the 1854 Ceded Territory (Table 1). No declarations were made for any Wisconsin 1837 or 1842 Ceded Territory lakes.

Bandmember Sign-Up: Again in 2018, Fond du Lac (FDL) Bandmembers had the opportunity to sign-up online for spearing and netting activities. By signing up online, individuals provided Resource Management Division (RMD) staff with contact phone numbers and email addresses. Individuals could also call RMD staff during regular work hours to sign up, if this was easier. A total of 62 individuals signed up using this online tool, compared to 90 in 2017 and 61 in 2016. It should be noted that there were a few individuals that ultimately ended up participating that never did sign up, but rather called RMD on a daily basis to inquire about available harvest opportunities. Also, many individuals that did sign up never actually participated.

Morning Notifications and Issuing Daily Permits: Each morning, RMD staff would choose lakes to open for that night and determine the number of available permits. Staff would send a mass email AND a mass text message to all individuals that had signed up and provided an email address and / or cell phone number. These email and texts would state the lakes open for the night. Those individuals that were interested and available to participate were given until noon to either call in or respond to the email. RMD staff planned to conduct a lottery-type drawing at noon to distribute the available permits amongst those interested in participating for that night. Daily drawings never did occur as we never had more Bandmembers interested than the number of available permits. Every Bandmember was able to participate on any night they could.

On most days, RMD staff sent out a subsequent email / text with advanced notification and plans for the next night, in order to give folks a full 36 hours to prepare and plan. This seemed to be well received by participants.

Permits were available at the boat landings. RMD office staff notified Conservation Officers and field staff of the Bandmembers that would be participating each night.

Harvest in 1837 Ceded Territory (Inland Lakes):

Due to the progression of spring and very late ice out, FDL was only able to participate on four inland lakes within the 1837 Ceded Territory, i.e. not including Mille Lacs Lake, which is covered on page 9 (Table 1). Harvest activities began on 3 May, and continued thru 5 May.

For the four inland 1837 lakes, spearing opportunities were available on Chisago and South Lindstrom Lakes for only a single night (Tables 2 & 3). Gill netting was open on two of the inland lakes within the 1837 Ceded Territory for two nights (Tables 2 & 3). Pounds of walleye harvested within each lake ranged from 29.6 pounds (South Long Lake, Table 2) to 273.4 pounds (Chisago Lake, Table 2). Harvest of walleyes within each lake ranged from eleven walleye (South Lindstrom Lake, Table 3) to 125 fish (Chisago Lake, Table 3). Length frequency distributions of harvested walleyes for the 1837 lakes are presented in Appendix 1.

The number of individual Bandmembers participating within the 1837 Ceded Territory ranged from three (Platte Lake) to 14 individuals per night (seven individuals on both Chisago & South Lindstrom Lakes, Table 4). The number of boats actually participating each night was low, between one and five boats per night (Table 5), as FDL Bandmembers tended to participate in family groups or to carpool and team up together as friends.

Additional species harvested from 1837 lakes included white sucker, black crappie, bluegill, bowfin, largemouth bass, rock bass, bullhead, and pumpkinseed sunfish (Table 6).

Table 1. Declarations of walleye by the Fond du Lac Band for lakes within the Minnesota 1837 and 1854 Ceded Territories. Declarations can be in either numbers or pounds. Harvest to date and balance remaining at the end of the spring 2018 season is also presented. Highlighted rows indicate lakes where there was FDL Band harvest activity.

Ceded Territory	Most Recent Harvest Date	Lake	Acreage	County	Declaration (no.)	Declaration (lbs)	Harvest to Date	Balance Remaining
MN 1837	5/3/2018	Chisago	873	Chisago	189		125	64
MN 1837	5/4/2018	Mille Lacs	128,227	Mille Lacs		8722	6378.8	2343.2
MN 1837	5/5/2018	Platte	1,674	Crow Wing	111		37	74
MN 1837	5/3/2018	South Lindstrom	450	Chisago	91		11	80
MN 1837	5/4/2018	South Long	1,313	Crow Wing	43		17	26
MN 1837		Sullivan	1,221	Morrison		123		123
MN 1854		Ball Club	206	Cook		40		40.0
MN 1854		Bear Island	2,362	St. Louis		1248		1248.0
MN 1854	5/7/2018	Birch	6,908	St. Louis		5837	28	5809.0
MN 1854	5/6/2018	Cadotte	288	St. Louis		103	77.6	25.4
MN 1854		Caribou	721	Cook	134			134
MN 1854		Crane	2,997	St. Louis		1418		1418.0
MN 1854		Devil Track	1,868	Cook		718		718.0
MN 1854		Four Mile	593	Cook		289		289.0
MN 1854		Island L Res	8,000	St. Louis		2000		2000.0
MN 1854		North McDougal	273	Lake	99			99
MN 1854		Pike	814	Cook		174		174.0
MN 1854		Silver Island	1,239	Lake	153			153
MN 1854		Tait	355	Cook	79			79
MN 1854		Vermilion, West	11,372	St. Louis		2500		2500.0
MN 1854		White Pine	346	Cook		161		161.0

Table 2. Harvest (pounds) of walleye and northern pike on four lakes within the MN portion of the 1837 Ceded Territory. Harvest is separated by spearing and netting, and is only for the Fond du Lac Band during spring 2018 harvest season.

WALLEYE					
Sum of Walleye Pounds	Column Labels				
Row Labels	Chisago	Platte	South Lindstrom	South Long	Grand Total
5/3/2018					
Spear	273.4		40.4		318.8
5/4/2018					
Net				29.6	29.6
5/5/2018					
Net		66.8			66.8
Grand Total	273.4	66.8	40.4	29.6	410.2

NORTHERN PIKE					
Sum of Northern Pike Pounds	Column Labels				
Row Labels	Chisago	Platte	South Lindstrom	South Long	Grand Total
5/3/2018					
Spear					
5/4/2018					
Net				124.6	124.6
5/5/2018					
Net		109.4			109.4
Grand Total		109.4		124.6	234

Table 3. Harvest (number) of walleye and northern pike on eight lakes within the MN portion of the 1837 Ceded Territory. Harvest is separated by spearing and netting, and is only for the Fond du Lac Band during spring 2018 harvest season.

WALLEYE

Sum of Walleye Number	Column Labels				Grand Total
Row Labels	Chisago	Platte	South Lindstrom	South Long	Grand Total
5/3/2018					
Spear	125		11		136
5/4/2018					
Net				17	17
5/5/2018					
Net		37			37
Grand Total	125	37	11	17	190

NORTHERN PIKE

Sum of Northern Pike Number	Column Labels				Grand Total
Row Labels	Chisago	Platte	South Lindstrom	South Long	Grand Total
5/3/2018					
Spear					
5/4/2018					
Net				55	55
5/5/2018					
Net		43			43
Grand Total		43		55	98

Table 4. Number of permits issued to Fond du Lac Bandmembers (identified using FDL license number) participating each night within 1837 Ceded Territory Lakes during the 2018 spring harvest season. Some individuals did receive multiple permits on some of the nights.

Count of Bandmember Tribal ID	Column Labels	
	GN	SP
5/3/2018		
Chisago		
3646		2
4957		3
4153		3
3313		2
3698		3
4231		3
4769		3
Chisago Total		19
S. Lindstrom		
4649		1
5898		2
3814		2
4956		1
3353		1
3807		1
6270		1
S. Lindstrom Total		9
5/3/2018 Total		28
5/4/2018		
S. Long		
4153	1	
3117	1	
4533	1	
4231	1	
S. Long Total	4	
5/4/2018 Total		4
5/5/2018		
Platte		
5898	2	
3814	2	
6219	2	
Platte Total	6	
5/5/2018 Total		6

Table 5. The number of boats used each night and on each lake by Fond du Lac Bandmembers while participating in 2018 spring harvest activities within the 1837 Ceded Territory of Minnesota.

Count of Unique No. Boats	Column Labels		
Row Labels	GN	SP	Grand Total
5/3/2018			
Chisago			
3293LP		1	1
8644HT		1	1
9316GP		1	1
S. Lindstrom			
3559FH		1	1
9975HP		1	1
5/4/2018			
S. Long			
0532HE	1		1
3293LP	1		1
5/5/2018			
Platte			
9975HP	1		1
Grand Total	3	5	8

Table 6. Harvest of additional species by Fond du Lac Bandmembers within lakes in the 1837 Ceded Territory of Minnesota during spring 2018 harvest activities.

Values	Column Labels			
	Chisago	Platte	South Lindstrom	South Long
Sum of White Sucker No.	1			3
Sum of White Sucker Lbs.	7.4			3.8
Sum of Black Crappie No.	1.0	6.0		
Sum of Black Crappie Lbs.	0.4	3.6		
Sum of Bluegill No.		3.0		3.0
Sum of Bluegill Lbs.		1.2		1.0
Sum of Bowfin No.	1.0			
Sum of Bowfin Lbs	4.4			
Sum of Largemouth Bass No.	4.0		1.0	8.0
Sum of Largemouth Bass Lbs.	14.0		2.6	10.0
Sum of Rock Bass No.				3.0
Sum of Rock Bass Lbs.				2.4
Sum of Bullhead Sp. No.		1.0		21.0
Sum of Bullhead Sp. Lbs.		1.1		19.8
Count of Pumkinseed No.		2.0		
Count of Pumkinseed Lbs.		2.0		

Mille Lacs Lake:

Official ice out reported by MNDNR was 11 May (https://www.dnr.state.mn.us/ice_out/index.html), though even on 11 May there was still ice on the SW third of the Lake. The MN State Fishing Opener occurred at 12:01 on the morning of 12 May. All Bands suspended fishing activities on the evenings of 11 – 13 May to accommodate the State anglers. Harvest activities resumed on the night of 14 May, when a State-mandated night angling ban went into effect on Mille Lacs Lake.

The Mille Lacs Band of Ojibwe started harvesting walleyes on 2 May 2018 (Table 7). Harvest activities continued thru the night of 30 May for the yellow perch fishery (Table 7).

The walleye quota for 2018 was never agreed upon between the State of MN and the Bands either at the Winter 1837 Fisheries Technical Committee Meeting nor in subsequent conference calls. The Bands operated and set quotas based upon a total allowable quota of 120,000 pounds of walleye. At this level, Total Tribal Allocation for the 2018 fishing season was set at 47,500 pounds of walleye, 50,000 pounds of northern pike, and 101,714 pounds of yellow perch. The State of MN operated on a total allowable quota of 150,000 pounds of walleye, giving State anglers an allocation of 87,800 pounds.

For all participating Bands, total harvest on Mille Lacs Lake thru May was 27,528.1 pounds (Table 7), almost double the 2017 harvest of 14,258.1 pounds of walleye. Mille Lacs Band harvested 9744.2 lbs of walleye, while Fond du Lac harvested 6378.8 pounds (Table 7). An additional 687.4 pounds of northern pike were harvested by all Bands (Table 8), well below the 3038.3 pounds of northern pike harvested in 2017. Yellow perch harvest by the Bands was 33.3 pounds (Table 9), also below the 2017 harvest of 696.8 pounds of yellow perch.

Fond du Lac's allocation for 2018 was 8722 pounds of walleye for Mille Lacs. Of note, this was the first year since the 2012 fishing season that Fond du Lac allowed Bandmembers to set gill nets in the Lake. Fond du Lac started spearing activities on 4 May, and finished gill netting on the night of 23 May, for a total of eight nights of harvest activities (Table 10, Figure 1). No official harvest activity occurred on the night of 20 May, as reported in Table 10 (67 walleyes at 112.4 lbs). This was the day that a lost "ghost" net was located, creeled, and credited to FDL's harvest account. Total harvest for FDL was 6378.8 pounds of walleye and 176.3 pounds of northern pike (Tables 7, 8, & 10). Additional species harvested by FDL bandmembers on Mille Lacs Lake included smallmouth bass (29.0 lbs), muskie (19.1 lbs), white sucker (10.8 lbs), tullibee (9.4 lbs), rock bass (8.1 lbs), and burbot (1.8 lbs) (Table 11).

Harvest by all participating Bands was concentrated at the Cedar Creek (8321.7 lbs), North Garrison (6342.4 pounds) and Liberty Beach (5011.4 pounds) access points (Table 12). No harvest was reported from the Marathon access point during the 2018 harvest season (Table 12). Gill net harvest rates (lbs walleye / gill net / night) were highest at the South Garrison access, followed by Cedar Creek (Figure 2).

For the Fond du Lac harvesters, walleye catch rates, calculated as the number of pounds of walleye harvested per hour of effort, were highest on 9 May for spearers (24.3 lbs / hr of effort; Table 13) and on 10 May for netting (11.2 lbs / hour soaked; Table 13). For all participating Bands, gill net harvest per night also peaked on 10 May, and declined thereafter (Figure 3).

Participation by FDL ranged from two to 17 Bandmembers per night (Table 14). Again, note that the single participant reported for 20 May is the recovered ghost net that was creeled on that day. A total of 33 different FDL Band members participated at Mille Lacs Lake (Table 15), down from the 39 that participated in 2017. Fifteen

members participated only a single night (Table 15), likely due to the very high catch rates relative to the last few years. Only eight individuals participated for up to three nights (Table 15). No members participated for more than three nights, with an average of just under two nights per participant at Mille Lacs (mean 1.8 ± 0.4 nights per individual). The number of boats used ranged from one to three boats per night (Table 16). This is also down from the maximum of eight in 2017.

In May 2018, harvest ranged from 3.5 to 851.3 pounds per Bandmember (Table 15, Figure 4). The average harvest for walleyes per individual was 193.3 ± 69.6 pounds, up significantly from the 71.9 ± 20.1 pounds per member observed in 2017. This likely explains why almost half of the Fond du Lac harvesters only participated for a single evening. Median harvest per Bandmember was 89.2 pounds, almost double the 2017 observed value of 48.3 pounds. FDL Bandmembers speared for a total of 133.0 man-hours, harvesting approximately 4.4 walleye per hour of effort (Table 13). This effort is down from 2017 (325.75 man-hours and 3.4 walleye harvested per hour), likely due to the opportunity to net in 2018 and the high catch rates of the nets this year due to the recruitment of the 2013 year class.

A total of 1572 walleyes were harvested by FDL (Table 17). Lengths of walleye harvested ranged from 13.9 to 28.4 inches (Figure 5). Spearing accounted for a higher harvest of female walleyes compared to the gill nets (Figure 6), while netting targeted males (Figure 7a). Note that in Figures 5b and 7b, the males were removed to show the number of females and unknown-sex fish harvested.

RMD staff attempted to collect otoliths from five individuals per sex and per 0.5 inch group, e.g. five males and five females between 15.0 and 15.49 inches. Ages were interpreted from otoliths collected from 103 of the walleyes (Table 18). The most common ages observed were from the 2013 year class (age-5) (Table 18 and Figure 8). The 2013 year class was considered fully mature at the start of the 2018 fishing season. FDL can expect harvest (in pounds) of the 2013 year class to increase in the future as this cohort continues to get older and grow larger. The 2013 year class is the first cohort since 2008 that has been above average as measured by Year Class Strength Index. Walleye growth by sex is presented in Figure 9.

The eight Bands set aside 2700 pounds of walleye to be used to cover incidental catch during both the spring and fall yellow perch net fishery. Beginning on 21 May, Fond du Lac opened Mille Lacs to yellow perch netting for interested Bandmembers (Table 19). Five individuals took advantage of this opportunity, each receiving permits to set a maximum of five nets per night. These individuals harvested a total of 205.6 pounds of walleye, 35.8 pounds of northern pike, and 1.2 pounds of yellow perch (Table 19).

Table 7. Harvest of walleyes (pounds) on Mille Lacs Lake, spring 2018, by all participating Bands.

Row Labels	BRV	FDL	LCO	LDF	MILLELACS	RCF	STC	Grand Total
Spear								
5/2/2018					90.2			90.2
5/3/2018					289.4			289.4
5/4/2018		56			695.3			751.3
5/5/2018					541.7		538.6	1080.3
5/6/2018					155.5			155.5
5/7/2018			2230		358.6		894.4	3483
5/8/2018			245.8		96.8		35.6	378.2
5/9/2018		385.6	117.6		131.4	85.6	8.4	728.6
5/10/2018		621.4	400.2		583.2			1604.8
5/11/2018				2875.6				2875.6
5/12/2018				312.8				312.8
5/13/2018					254.2			254.2
5/14/2018		19.4			73.8			93.2
5/15/2018		115.6	226.6				443.8	786
5/16/2018					33	221.6		254.6
5/17/2018	100.6			91.6			93.4	285.6
5/18/2018	90.2		108.2					198.4
5/19/2018	100.6				13.4	236.2		350.2
5/20/2018					120.9			120.9
5/22/2018					96.8			96.8
5/23/2018					0			0
Spear Total	291.4	1198	3328.4	3280	3534.2	543.4	2014.2	14189.6
Net								
5/5/2018					17.8			17.8
5/7/2018					449			449
5/8/2018					481.6			481.6
5/9/2018					1411.6			1411.6
5/10/2018		2204			1704			3908
5/14/2018		1615			668.4		821.5	3104.9
5/15/2018		1043.8			577.4		658.6	2279.8
5/16/2018					444.8			444.8
5/17/2018					0		78	78
5/19/2018					154.6			154.6
5/20/2018		112.4			226.4			338.8
5/21/2018		22.6						22.6
5/22/2018		122			62.2			184.2
5/23/2018		61						61
5/24/2018					12.2			12.2
5/29/2018	230.2							230.2
5/30/2018	159.4							159.4
Net Total	389.6	5180.8			6210		1558.1	13338.5
Grand Total	681	6378.8	3328.4	3280	9744.2	543.4	3572.3	27528.1

Table 8. Harvest of northern pike (pounds) on Mille Lacs Lake, spring 2018, by all participating Bands.

Row Labels	BRV	FDL	LCO	LDF	MILLELACS	RCF	STC	Grand Total
Spear								
5/2/2018					23			23
5/3/2018					0			0
5/4/2018					0			0
5/5/2018					0		0	0
5/6/2018					0			0
5/7/2018			0		0		0	0
5/8/2018			0		0		0	0
5/9/2018		0	0		0	0	0	0
5/10/2018		0	0		0			0
5/11/2018				0				0
5/12/2018				0				0
5/13/2018					0			0
5/14/2018		0			0			0
5/15/2018		13.2	0				0	13.2
5/16/2018					0	0		0
5/17/2018	0			0			0	0
5/18/2018	0		0					0
5/19/2018	0				0	0		0
5/20/2018					0			0
5/22/2018					0			0
5/23/2018					0			0
Spear Total	0	13.2	0	0	23	0	0	36.2
Net								
5/5/2018					0			0
5/7/2018					9			9
5/8/2018					71.3			71.3
5/9/2018					18.8			18.8
5/10/2018		57.5			100.8			158.3
5/14/2018		42.6			20.2		29.6	92.4
5/15/2018		27.2			46.6		8	81.8
5/16/2018					9.6			9.6
5/17/2018					0		9.4	9.4
5/19/2018					18.8			18.8
5/20/2018		0			44.4			44.4
5/21/2018		12.8						12.8
5/22/2018		23			14.2			37.2
5/23/2018		0						0
5/24/2018					4			4
5/29/2018	58.4							58.4
5/30/2018	25							25
Net Total	83.4	163.1	0	0	357.7	0	47	651.2
Grand Total	83.4	176.3	0	0	380.7	0	47	687.4

Table 9. Harvest of yellow perch (pounds) on Mille Lacs Lake, spring 2018, by all participating Bands.

Row Labels	BRV	FDL	LCO	LDF	MILLELACS	RCF	STC	Grand Total
Spear								
5/2/2018								
5/3/2018					0			0
5/4/2018					0			0
5/5/2018					0		0	0
5/6/2018								
5/7/2018			0		0		0	0
5/8/2018			0				0	0
5/9/2018			0		0	0	0	0
5/10/2018			0					0
5/11/2018				0				0
5/12/2018								
5/13/2018								
5/14/2018								
5/15/2018							0.4	0.4
5/16/2018								
5/17/2018								
5/18/2018								
5/19/2018								
5/20/2018								
5/22/2018								
5/23/2018								
Spear Total			0	0	0	0	0.4	0.4
Net								
5/5/2018					0			0
5/7/2018					1			1
5/8/2018					0.8			0.8
5/9/2018					0			0
5/10/2018			4		0			4
5/14/2018			2				0	2
5/15/2018		0.8					7.4	8.2
5/16/2018								
5/17/2018								
5/19/2018					0.9			0.9
5/20/2018					0.2			0.2
5/21/2018								
5/22/2018			1.2					1.2
5/23/2018								
5/24/2018								
5/29/2018	5.8							5.8
5/30/2018	8.8							8.8
Net Total	14.6	8	0	0	2.9	0	7.4	32.9
Grand Total	14.6	8	0	0	2.9	0	7.8	33.3

Table 10. Harvest by night and by Landing for the Fond du Lac Band on Mille Lacs Lake, Spring 2018. Note that on 20 May, FDL switched to targeting yellow perch using gill nets.

Column Labels	Walleye Fishery					Yellow Perch Fishery				
	5/4/2018	5/9/2018	5/10/2018	5/14/2018	5/15/2018	5/20/2018	5/21/2018	5/22/2018	5/23/2018	Grand Total
Cedar										
Sum of Walleye Number		188	1713	983	704	67		55	31	3741
Sum of Walleye Lbs		385.6	2825.4	1634.4	1159.4	112.4		122	61	6300.2
Sum of Northern Number		0	11	9	7	0		3	0	30
Sum of Northern Lbs		0	57.5	42.6	40.4	0		23	0	163.5
Sum of Perch Number			4	2	1			2		9
Sum of Perch Lbs			4	2	0.8			1.2		8
Malmo										
Sum of Walleye Number	24									24
Sum of Walleye Lbs	56									56
Sum of Northern Number										
Sum of Northern Lbs										
Sum of Perch Number										
Sum of Perch Lbs										
Liberty										
Sum of Walleye Number							12			12
Sum of Walleye Lbs							22.6			22.6
Sum of Northern Number							5			5
Sum of Northern Lbs							12.8			12.8
Sum of Perch Number										
Sum of Perch Lbs										
Total Sum of Walleye Number	24	188	1713	983	704	67	12	55	31	3777
Total Sum of Walleye Lbs	56	385.6	2825.4	1634.4	1159.4	112.4	22.6	122	61	6378.8
Total Sum of Northern Number		0	11	9	7	0	5	3	0	35
Total Sum of Northern Lbs		0	57.5	42.6	40.4	0	12.8	23	0	176.3
Total Sum of Perch Number			4	2	1			2		9
Total Sum of Perch Lbs			4	2	0.8			1.2		8

Table 11. Additional species harvested on Mille Lacs Lake, May 2018, by the Fond du Lac Band participating in harvest activities. Dates that are not reported in this table, e.g. 4 May, indicates that no additional species were harvested other than walleye, northern pike, or yellow perch as reported in Table 10.

Landing	Data	Date						Grand Total
		5/10/2018	5/14/2018	5/15/2018	5/21/2018	5/22/2018	5/23/2018	
Cedar	Sum of White Sucker No.	1	1	0	0	2	0	4
	Sum of White Sucker Lbs.	2.0	1.2	0.0	0.0	2.8	0.0	6.0
	Sum of Burbot No.	1	0	0	0	0	0	1
	Sum of Burbot Lbs.	1.8	0	0	0	0	0	1.8
	Sum of Rock Bass No.	0	0	1	0	7	1	9
	Sum of Rock Bass Lbs.	0	0	1	0	5.1	0.8	6.9
	Sum of Smallmouth Bass No.	0	1	0	0	12	3	16
	Sum of Smallmouth Bass Lbs.	0	4.8	0	0	20.8	3.4	29
	Sum of Tullibee No.	0	0	2	0	4	1	7
	Sum of Tullibee Lbs.	0	0	2.6	0	5.6	1.2	9.4
	Sum of Muskie No.	0	0	0	0	1	1	2
Sum of Muskie Lbs	0	0	0	0	2.6	16.5	19.1	
Liberty	Sum of White Sucker No.	0	0	0	2	0	0	2
	Sum of White Sucker Lbs.	0.0	0.0	0.0	4.8	0.0	0.0	4.8
	Sum of Burbot No.	0	0	0	0	0	0	0
	Sum of Burbot Lbs.	0	0	0	0	0	0	0
	Sum of Rock Bass No.	0	0	0	2	0	0	2
	Sum of Rock Bass Lbs.	0	0	0	1.2	0	0	1.2
	Sum of Smallmouth Bass No.	0	0	0	0	0	0	0
	Sum of Smallmouth Bass Lbs.	0	0	0	0	0	0	0
	Sum of Tullibee No.	0	0	0	0	0	0	0
	Sum of Tullibee Lbs.	0	0	0	0	0	0	0
	Sum of Muskie No.	0	0	0	0	0	0	0
Sum of Muskie Lbs	0	0	0	0	0	0	0	
Total Sum of White Sucker No.		1	1	0	2	2	0	6
Total Sum of White Sucker Lbs.		2.0	1.2	0.0	4.8	2.8	0.0	10.8
Total Sum of Burbot No.		1	0	0	0	0	0	1
Total Sum of Burbot Lbs.		1.8	0	0	0	0	0	1.8
Total Sum of Rock Bass No.		0	0	1	2	7	1	11
Total Sum of Rock Bass Lbs.		0	0	1	1.2	5.1	0.8	8.1
Total Sum of Smallmouth Bass No.		0	1	0	0	12	3	16
Total Sum of Smallmouth Bass Lbs.		0	4.8	0	0	20.8	3.4	29
Total Sum of Tullibee No.		0	0	2	0	4	1	7
Total Sum of Tullibee Lbs.		0	0	2.6	0	5.6	1.2	9.4
Total Sum of Muskie No.		0	0	0	0	1	1	2
Total Sum of Muskie Lbs		0	0	0	0	2.6	16.5	19.1

Table 12. Harvest of walleye and northern pike (pounds) from each of the landings on Mille Lacs Lake used by Tribal fishers during the Spring 2018 harvest season.

Row Labels	Values	
	Sum of Walleye Lbs	Sum of Northern Lbs
Cedar	8321.7	201.1
DNR	1649.1	64.2
Hennepin	1727	225.2
IndianPt	337.8	29
Liberty	5011.4	25
Malmo	56	0
Marathon	0	0
NGarrison	6342.4	23
SGarrison	1495.2	4.2
Wealthwood	389.6	83.4
Wigwam	2197.9	32.3
Grand Total	27528.1	687.4

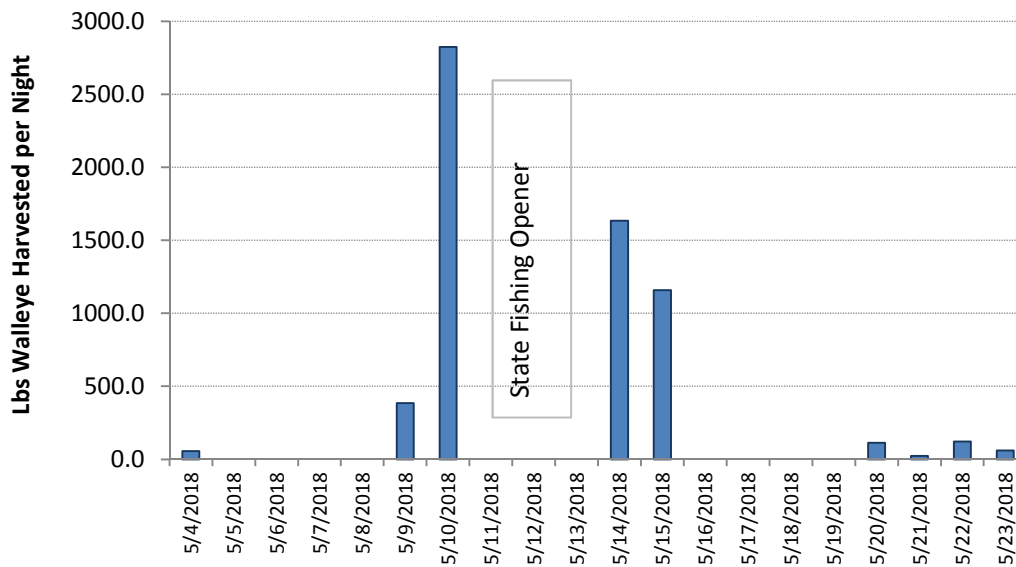


Figure 1. Harvest by walleye pounds for each night of harvest activities by FDL Bandmembers on Mille Lacs Lake, May 2018. Note that all Bands suspended harvest activities for the MN State Fishing Opener on 11 - 13 May.

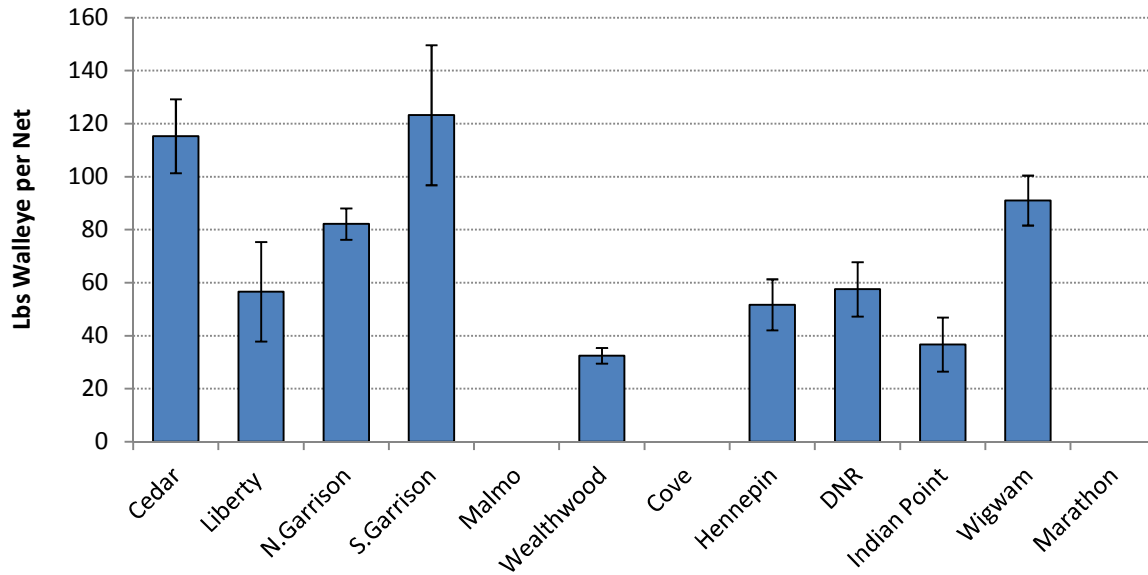


Figure 2. Mean (average) pounds of walleye harvested per gill net at each landing on Mille Lacs Lake, May 2018, by all participating Bands. Error bars represent one standard error of the mean.

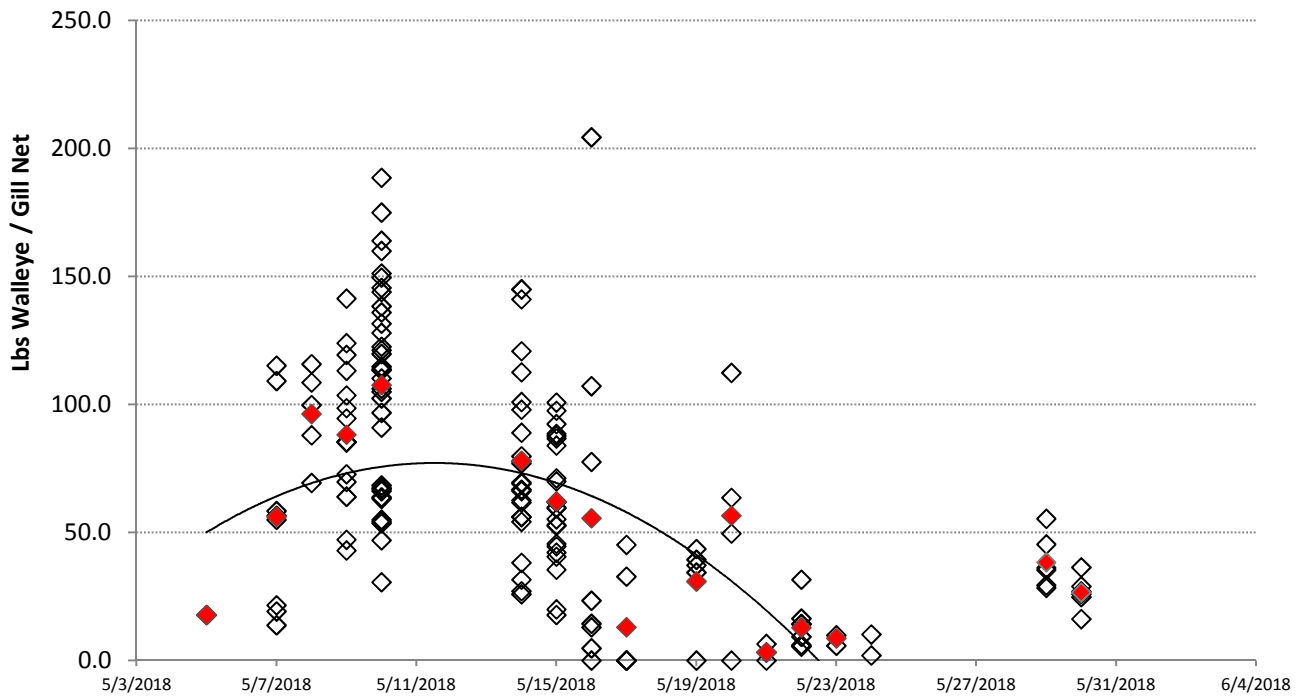


Figure 3. Pounds of walleye harvested per gill net each night of netting on Mille Lacs Lake, May 2018. Data is from all participating Bands, and not just Fond du Lac. Hollow diamonds are weights from individual nets, whereas red diamonds indicate nightly averages. Note that all Bands suspended activities over the MN State Fishing Opener.

Table 13. Harvest effort (no. and lbs. per hour) for Fond du Lac Bandmembers spearing (Panel A) and netting (Panel B) walleyes on Mille Lacs Lake, Spring 2018. Data includes walleye harvest during the yellow perch net fishery.

Date	Man Hours	WAE Harvested (no)	WAE Harvested (Lbs)	No. WAE / Hour	Lbs WAE / Hour
5/4/2018	33.5	24	56.0	0.7	1.7
5/9/2018	24.5	188	596.4	7.7	24.3
5/10/2018	36	311	621.4	8.6	17.3
5/14/2018	15	11	19.4	0.7	1.3
5/15/2018	24	45	115.6	1.9	4.8
Total Spearing	133	579	1408.8	4.4	10.6

Panel B - Netting Data

Date	Man Hours	WAE Harvested (no)	WAE Harvested (Lbs)	No. WAE / Hour	Lbs WAE / Hour
5/10/2018	197	1402	2204.0	7.1	11.2
5/14/2018	224.8	972	1615.0	4.3	7.2
5/15/2018	212.7	659	1043.8	3.1	4.9
5/20/2018	96	67	112.4	0.7	1.2
5/21/2018	67.45	12	22.6	0.2	0.3
5/22/2018	171.85	55	122.0	0.3	0.7
5/23/2018	77.5	31	61.0	0.4	0.8
Total Netting	1047.3	3198	5180.8	3.1	4.9

Table 14. Number of Fond du Lac Bandmembers participating in spearing activities on Mille Lacs Lake during spring 2018 harvest activities. No actual official activity occurred on 20 May; the one “participant” is the found net that was creel on 20 May. Five different individuals participated in the yellow perch fishery that began on 21 May.

Row Labels	Count of Tribal ID Number
5/4/2018	9
5/9/2018	9
5/10/2018	17
5/14/2018	9
5/15/2018	8
5/20/2018	1
5/21/2018	3
5/22/2018	5
5/23/2018	2
Grand Total	63

Table 15. Sum of total walleye and northern pike pounds harvested per Fond du Lac Bandmember on Mille Lacs Lake during spring 2018 spearing and netting activities. Days Participating presents the number of nights each individual participated. Data includes the yellow perch net fishery. Bandmembers came down on average 1.8 ± 0.4 times

Tribal ID Number	Count of Days Participating	Sum of Walleye Pounds	Sum of Northern Pike Pounds
3049	1	310.0	3
3094	1	308.6	12.6
3121	1	82.3	
3123	1	80.5	
3313	1	10.7	
3353	1	3.5	
3366	1	27.4	
3588	2	298.9	14.2
3646	1	10.7	
3698	2	256.2	49.7
3804	1	54.2	
3814	3	854.8	22
4076	1	89.2	5.6
4119	3	30.2	5.2
4253	2	213.7	
4649	3	166.4	
4714	3	75.8	20.2
4769	3	353.0	
4947	2	41.6	10.4
4956	2	166.4	
4957	2	468.8	5.4
5133	3	270.5	7
5391	3	328.8	5.8
5558	2	610.7	
5561	1	74.4	
5803	2	395.5	4.6
5898	3	340.6	
5923	1	264.6	6.2
6219	2	40.7	
6266	1	30.6	
6270	2	40.7	
6432	1	38.5	4.4
6510	1	40.4	
Grand Total	59	6378.8	176.3

Table 16. Number of unique boats participating on each night for the Fond du Lac Band on Mille Lacs Lake during Spring 2018 spearing harvest activity. Beginning on 21 May, all activity was for yellow perch netting.

Row Labels	Count of Unique Number of Boats
5/4/2018	3
5/9/2018	2
5/10/2018	3
5/14/2018	2
5/15/2018	2
5/21/2018	1
5/22/2018	2
5/23/2018	1
Grand Total	16

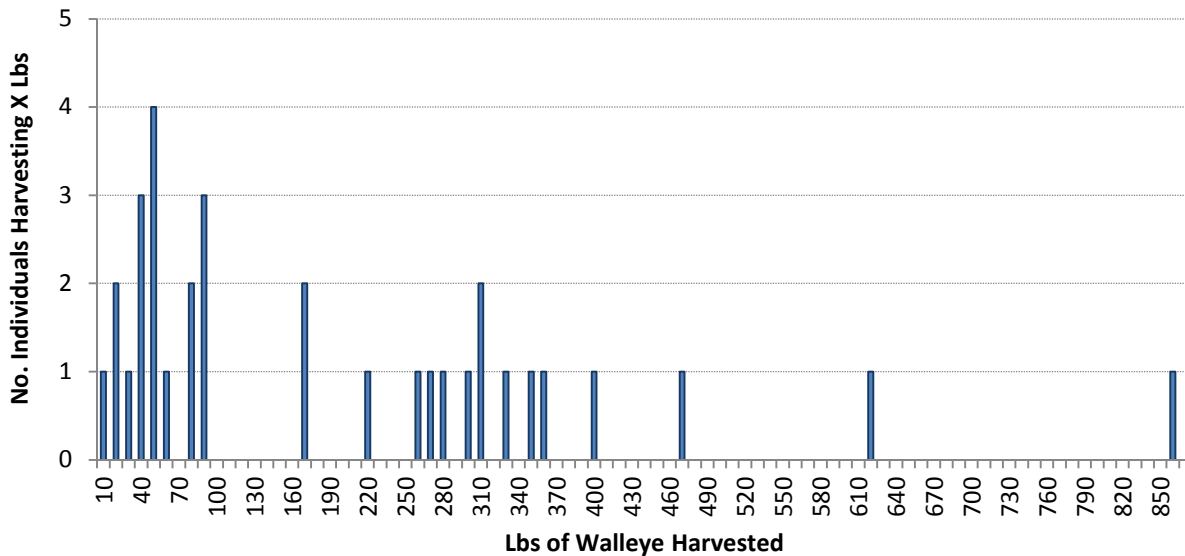


Figure 4. Amount of walleye pounds harvested in Mille Lacs Lake during spring 2018 by the number of Fond du Lac Bandmembers. Category values represent a maximum value, e.g. 10 means that one individual came to Mille Lacs and harvested between 0.1 and ten pounds of walleye, whereas one individual harvested between 850.1 and 860.0 pounds of walleye. Mean is 193.3 ± 69.6 lbs / member (min 3.5, max 851.3), while median value is 89.2 lbs.

Table 17. Harvest of male, female, and unknown sexed walleyes each night by Fond du Lac Bandmembers on Mille Lacs Lake, Spring 2018. Data does include walleyes harvested during the yellow perch net fishery.

Row Labels	F	M	U	Grand Total
Gill Net				
5/10/2018	14	498	4	516
5/14/2018	12	169		181
5/15/2018	6	124	1	131
5/20/2018	7	49	11	67
5/21/2018		8	4	12
5/22/2018	1	27	27	55
5/23/2018	1	3	27	31
Spear				
5/4/2018	4	20		24
5/9/2018	19	169		188
5/10/2018	49	254	8	311
5/14/2018	1	10		11
5/15/2018	11	33	1	45
Grand Total	125	1364	83	1572

Table 18. Ages assigned to 103 aged walleyes harvested from Mille Lacs Lake during spring 2018 activities by the Fond du Lac Band. Ages were interpreted using otoliths, and are separated by female (F) and male (M) fish.

Cohort	Count of Age	Column Labels		Grand Total
	Row Labels	F	M	
2015	3		2	2
2014	4		8	8
2013	5	5	47	52
2012	6	1	6	7
2011	7		4	4
2010	8	1	4	5
2009	9	1	5	6
2008	10	1	6	7
2007	11		2	2
2006	12	2	1	3
2005	13	2		2
2004	14	1	1	2
2003	15	1		1
2002	16		1	1
2001	17		1	1
Grand Total		15	88	103

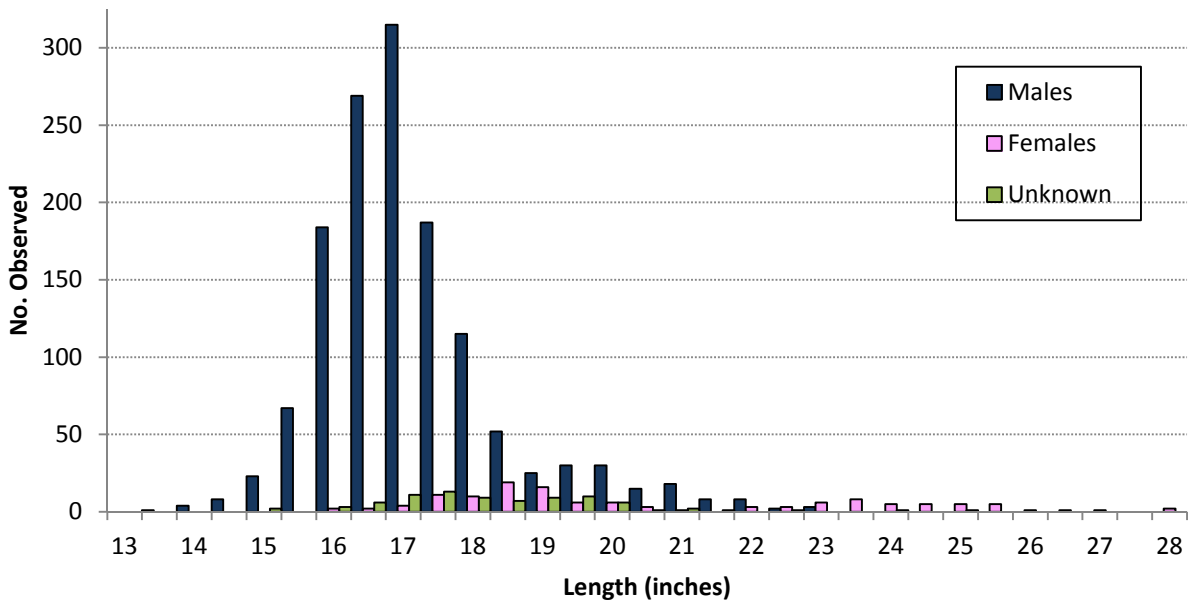


Figure 5a. Length frequency distribution of all walleyes harvested by Fond du Lac Bandmembers on Mille Lacs Lake during spring 2018 harvest activities. Harvest was from Cedar Creek, Malmo, and Liberty Beach landings, and are separated by males (blue bars), females (pink bars), and unknown individuals (green bars). Harvest was from both spearing and netting. Per the protocols, Fond du Lac measured the first 100 fish each night and those from the last two (2) gill nets of the morning.

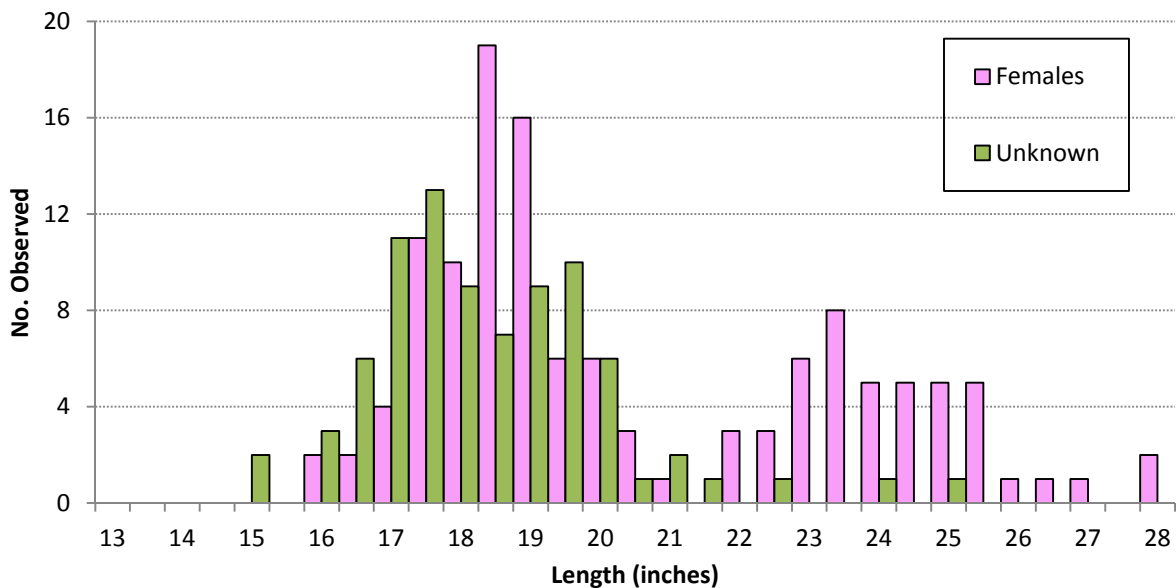


Figure 5b. Length frequency distribution of all female and unknown walleyes harvested by the Fond du Lac Band on Mille Lacs Lake during May 2018 harvest activities. Per the protocols, Fond du Lac measured the first 100 fish and from the last two (2) gill nets of the morning. This is the same data presented in Figure 5a, with the males removed to change the scale on the No. Observed axis.

Spearing Data Only

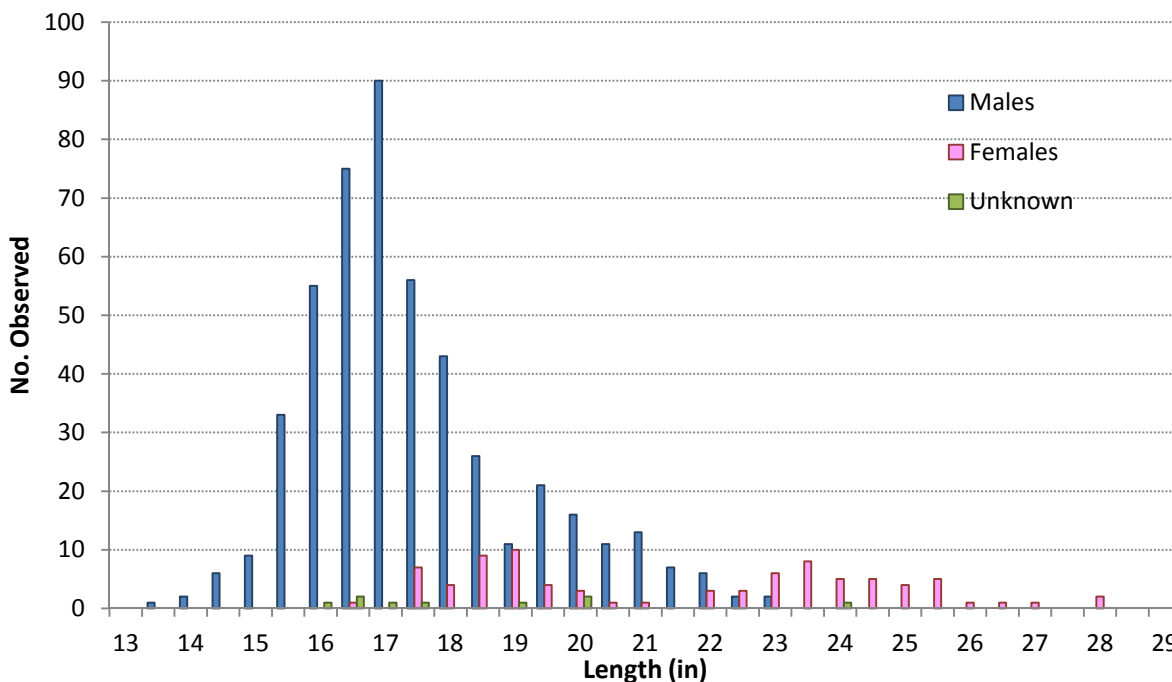


Figure 6. Length frequency distribution of all walleyes harvested by Fond du Lac Bandmembers on Mille Lacs Lake during spring 2018 spearing activities. Harvest was from both Cedar Creek and Malmo landings, and are separated by males (blue bars), females (pink bars), and unknown individuals (green bars).

Table 19. Harvest of walleyes, northern pike, and yellow perch during the Yellow Perch Gill Net Fishery on Mille Lacs Lake, Spring 2018, by the Fond du Lac Band.

Landing	Date	Gear	Data		
		Net	Sum of Walleye Lbs	Sum of Northern Lbs	Sum of Perch Lbs
Cedar	5/22/2018		122.0	23.0	1.2
	5/23/2018		61.0	0.0	
Cedar Total			183.0	23.0	1.2
Liberty	5/21/2018		22.6	12.8	
Liberty Total			22.6	12.8	
Grand Total			205.6	35.8	1.2

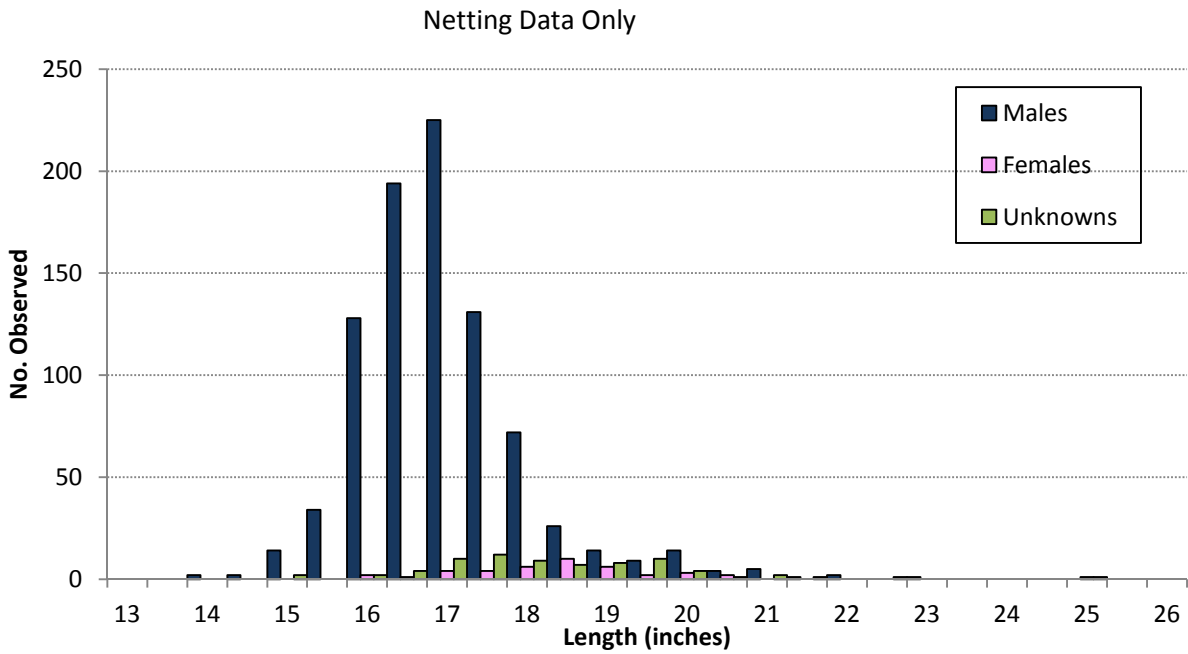


Figure 7a. Length frequency distribution of all walleyes harvested by netting by Fond du Lac Band members on Mille Lacs Lake, May 2018. Per the protocols, Fond du Lac measured the first 100 fish and those from the last two (2) gill nets of the morning.

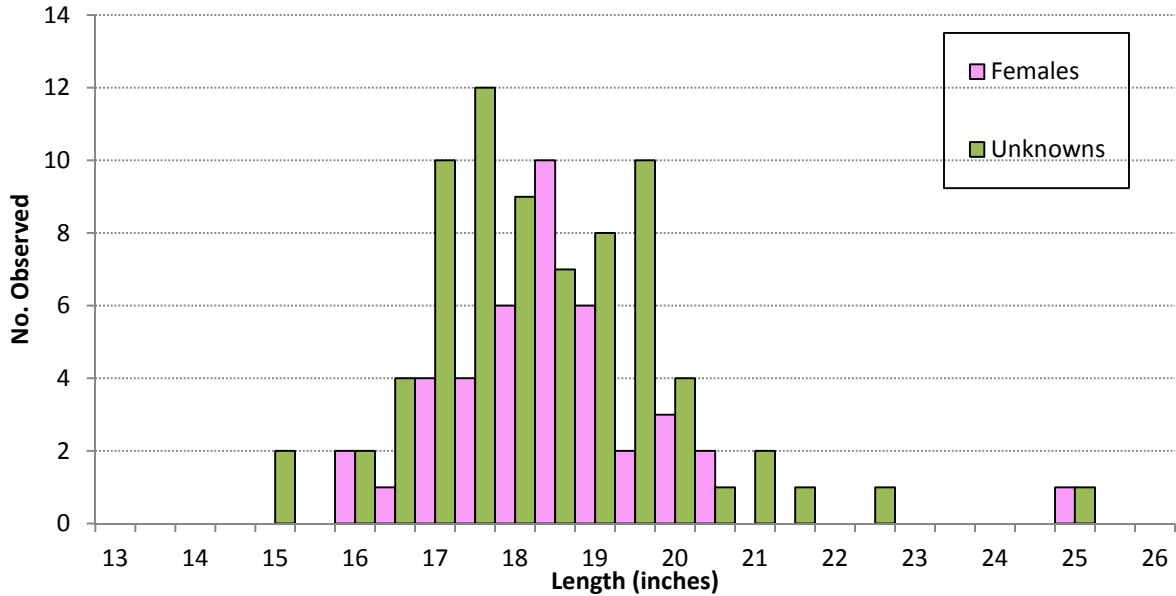


Figure 7b. Length frequency distribution of all female and unknown walleyes harvested by the Fond du Lac Band on Mille Lacs Lake during May 2018 gill netting activities. Per the protocols, Fond du Lac measured the first 100 fish and from the last two (2) gill nets of the morning. This is the same data presented in Figure 7a, with the males removed to change the scale on the No. Observed axis.

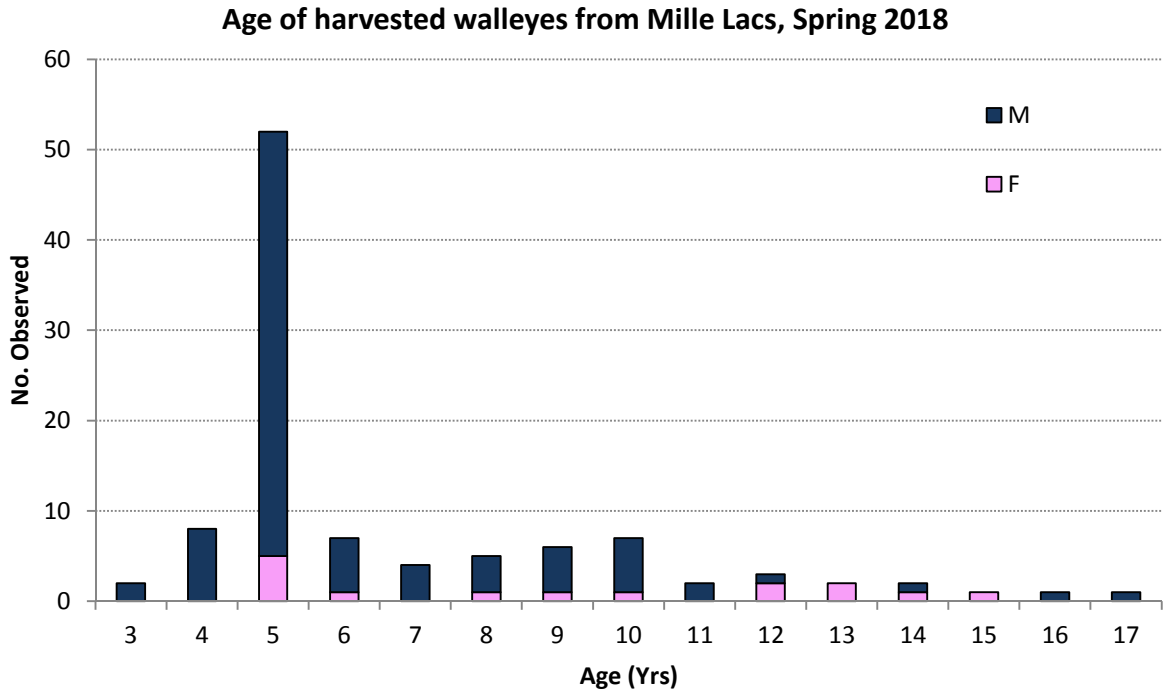


Figure 8. Age Frequency distribution of walleyes collected from Mille Lacs Lake during spring 2018 harvest activities. Ages were interpreted using otoliths, and are separated by males (blue bars) and females (pink bars).

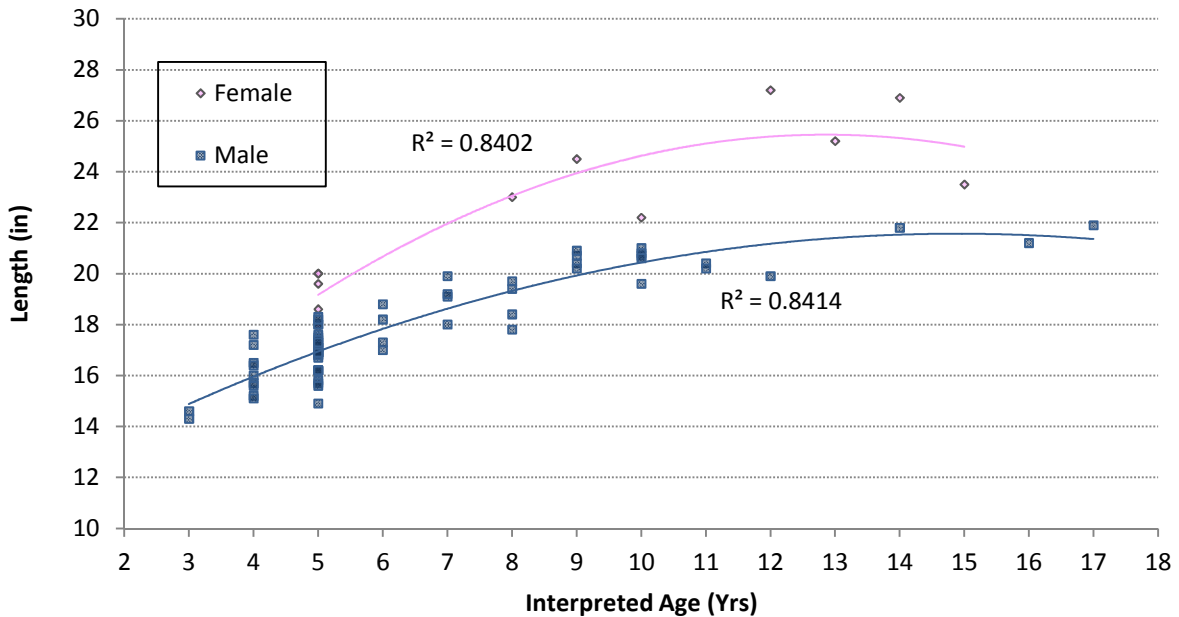


Figure 9. Length at age for male (blue squares) and female (pink diamonds) walleyes collected from Mille Lacs Lake during spring 2018 harvest activities. Interpreted ages were made using otoliths collected at the time of creeling.

Harvest in 1854 Ceded Territory:

Due to the progression of spring and the late ice out occurring in northeast MN, many of the 1854 lakes didn't become ice-free until after the State Fishing Opener. FDL only participated on two of the 15 declared lakes within the 1854 Ceded Territory (Table 1). Fond du Lac chose instead to concentrate efforts on Mille Lacs Lake due to the night fishing ban on that lake. Harvest activities only took place on 6 and 7 May within the 1854 ceded territory. FDL did not fish at all in Lake Vermilion in 2018.

On 6 May, Fond du Lac opened up Cadotte Lake for spearing. Two individuals speared 50 walleye for 77.6 pounds (Tables 20 & 21). Netting and spearing opportunities were available on the night of 7 May on Birch Lake (Tables 20 & 21). FDL netters harvested 28.0 pounds of walleye and 28.6 pounds of northern pike (Tables 20 & 21). Spearers were unsuccessful on Birch Lake for any species of fish due to limited visibility and poor water clarity. Total harvest of walleye in the 1854 Ceded Territory was 105.6 pounds of walleye (Table 20). Fond du Lac harvesters took 70 walleyes from 1854 Ceded Territory Lakes (Table 21). Total harvest of northern pike from 1854 Ceded Territory lakes was 28.6 pounds (Table 20) and 8 fish (Table 21). Length frequency distributions of harvested walleyes are presented in Appendix 1.

The number of Bandmembers participating each night ranged from two (Cadotte Lake, Table 22) to ten individuals (Birch Lake, Table 22). A total of 12 different individuals participated on 1854 lakes (Table 22). The number of boats actually participating each night was again low, from a single boat on Cadotte Lake to three boats on Birch Lake (Table 23).

Additional species harvested from Birch Lake included 38 white suckers (57.4 lbs), 12 rock bass (6.2 lbs), one tullibee / lake whitefish (1.0 lb), one bluegill (0.6 lbs), and one black crappie (0.4 lbs) (Table 24). No fish species other than walleyes were harvested out of Cadotte Lake.

Gill Netting within Inland Lakes:

Mille Lacs Lake represents a unique opportunity for Bandmembers to net for walleyes and experience exceptional and highly efficient harvest rates (Table 25). Harvest rates for walleyes on Mille Lacs Lake (58.9 pounds per net average; Table 25) do not necessarily translate to similar harvest rates on the inland bodies of water. Within both the 1837 and 1854 Ceded Territories, the FDL Band set nets in three of the inland lakes (Table 25). The number of nets set per night ranged from four (South Long Lake) to 17 nets (Birch Lake) (Table 25). Mean harvest rates, as measured by pounds of walleye / net, ranged from 1.3 pounds (Birch Lake) to 6.2 pounds (Platte Lake) (Table 25). Overall catch rates averaged 9.6 ± 3.4 pounds of walleye per net in the 1837 Ceded Territory Lakes and 1.6 ± 0.6 pounds of walleye per net in the 1854 Ceded Territory Lake (Table 25). Combining data from all of the inland lakes within both of the Ceded Territories produced a harvest rate of 4.6 ± 2.0 pounds of walleye per net (Table 25). Harvest rates are also presented for northern pike, and were highly influenced by the high harvest rate in South Long Lake (Table 25).

Bandmember Harvest and Participation:

Total walleye harvest within all lakes in the 1837 and 1854 Ceded Territories of Minnesota was 6894.6 pounds (Table 26), a large increase from the 2017 total of 3753.8 pounds. Total harvest of northern pike was 438.9 pounds (Table 26), well below 2017's harvest of 785.6 pounds.

Forty-two different Bandmembers participated in spearing and netting activities during the spring 2018 fishing season (Table 26). This represents a 36.4% decline in participation from 2017, when 66 different individuals participated. Bandmembers harvested between 0.0 and 888.3 pounds of walleye per individual, and between 0.0 to 70.2 pounds of northern pike (Table 26). Eventhough total walleye harvest in 2018 was almost double that of 2017, average harvest per individual Bandmember declined to 48.9 ± 7.6 pounds per harvester (median of 34.6 pounds), down from a 2017 average of 56.6 ± 14.9 pounds of walleye per individual (median value of 44.8 pounds). This suggests that fewer individuals in 2018 were responsible for a larger portion of the harvest, likely influenced by the Mille Lacs harvest (Figure 4). In 2018, northern pike harvest averaged 2.6 ± 1.3 pounds per participating Bandmember (median of 0.0 pounds), down from the 2017 mean of 12.3 ± 5.1 pounds of northern pike (median value of 1.2 pounds).

Fond du Lac Bandmembers have recently expressed concern that the Band is "leaving fish on the table" that could / should be going to the community. FDL RMD allowed for harvest opportunity thru 31 May, but few individuals took advantage of this opportunity. Participating Bandmembers need to start looking around the community for members of the next generation, and begin mentoring these youngsters. If no one shows the next generation how to participate in the springtime opportunities available to the community, interest will continue to decline as it has over the last two decades. RMD will continue to provide opportunities, but to get fish into the community will require increased interest and participation by Bandmembers in the future.

Table 20. Harvest (pounds) of walleye and northern pike on two lakes within the MN portion of the 1854 Ceded Territory during spring 2018 harvest season. Harvest was by spearing on 6 May in Cadotte Lake and by netting on 7 May in Birch Lake.

Pounds of Walleye

Sum of Walleye Pounds	Column Labels		
Row Labels	Birch	Cadotte	Grand Total
5/6/2018		77.6	77.6
5/7/2018	28		28
Grand Total	28	77.6	105.6

Pounds of Northern Pike

Sum of Northern Pike Pounds	Column Labels		
Row Labels	Birch	Cadotte	Grand Total
5/6/2018			
5/7/2018	28.6		28.6
Grand Total	28.6		28.6

Table 21. Harvest (number) of walleye and northern pike on two lakes within the MN portion of the 1854 Ceded Territory during spring 2018 harvest season. Harvest was by spearing on 6 May in Cadotte Lake and by netting on 7 May in Birch Lake.

Walleye Numbers

Sum of Walleye Number	Column Labels		
Row Labels	Birch	Cadotte	Grand Total
5/6/2018		50	50
5/7/2018	20		20
Grand Total	20	50	70

Northern Pike Numbers

Sum of Northern Pike Number	Column Labels		
Row Labels	Birch	Cadotte	Grand Total
5/6/2018			
5/7/2018	8		8
Grand Total	8		8

Table 22. Fond du Lac Bandmembers participating each night within 1854 Ceded Territory Lakes during the 2018 spring harvest season. Data is separated by netters (GN) and spearers (SP). Data presented are the number of permits issued to each individual, as some individuals did receive multiple gill net permits on some of the nights.

Count of Bandmember Tribal ID Row Labels	Column Labels	
	GN	SP
5/6/2018		
5019		1
5050		1
5/7/2018		
3587	1	1
3588	3	1
3814	3	1
4649		1
4956		1
4957	3	1
5898	2	1
6219	2	1
6432		1
6433	3	
Grand Total	17	11

Table 23. The number of boats used each night and on each lake by Fond du Lac Bandmembers while participating in 2018 spring harvest activities within the 1854 Ceded Territory of Minnesota.

Count of Unique No. Boats Row Labels	Column Labels	
	GN	SP
5/6/2018		
Cadotte		
3061HZ		1
5/6/2018 Total		1
5/7/2018		
Birch		
3559FH	1	1
9975HP	1	1
4736HV	1	1
5/7/2018 Total	3	3

Table 24. Harvest of additional species by Fond du Lac Bandmembers within lakes in the 1854 Ceded Territory of Minnesota during spring 2018 harvest activities. Note that no other species were harvested from Cadotte Lake by the two spearers.

Row Labels	
Birch	
5/7/2018	
Sum of Tullibee / Lk Whitefish No.	1
Sum of Tullibee / Lk Whitefish Lbs.	1.0
Sum of White Sucker No.	38
Sum of White Sucker Lbs.	57.4
Sum of Rock Bass No.	12
Sum of Rock Bass Lbs.	6.2
Sum of Black Crappie No.	1
Sum of Black Crappie Lbs.	0.4
Sum of Bluegill No.	1
Sum of Bluegill Lbs.	0.6

Table 25. Mean (average) and median gill net catch rates for walleye and northern pike within 1837 and 1854 Ceded Territory lakes of Minnesota during spring 2018 harvest activities. Note that the 1837 Total is for Platte and South Long ONLY, and does not include data from Mille Lacs Lake. Grand Total also does not include data from Mille Lacs Lake.

Row Labels	Sum of No. Nets	Sum of WAE No.	Sum of WAE Lbs	Sum of NOP No.	Sum of NOP Lbs	Mean No. WAE / Net	Mean Lbs WAE / Net	Median Lbs WAE / Net	Mean No. NOP / Net	Mean Lbs NOP / Net	Median Lbs NOP / Net
1837											
Mille Lacs	88	3198	5180.8	34	163.1	36.3	58.9	59.8	0.4	1.8	0.6
Platte	6	37	66.8	43	109.4	6.2	22.3	11.1	7.2	18.2	14.3
South Long	4	17	29.6	55	124.6	4.25	7.4	8.9	13.75	31.2	24.2
1837 Total (Inland Lakes Only)	10	54	96.4	98	234.0	5.4 ± 2.2	9.6 ± 3.4	8.8	9.8 ± 6.4	23.4 ± 14.1	14.3
1854											
Birch	17	20	28	8	28.6	1.3	1.6	0.0	0.5	1.7	0.0
1854 Total	17	20	28	8	28.6	1.3 ± 0.5	1.6 ± 0.6	1.8	0.5 ± 0.2	2.2 ± 1.0	2.9
Grand Total (Inland Lakes Only)	27	74	124.4	106	262.6	2.7 ± 1.1	4.6 ± 2.0	2.3	4.1 ± 2.9	11.4 ± 7.2	4.5

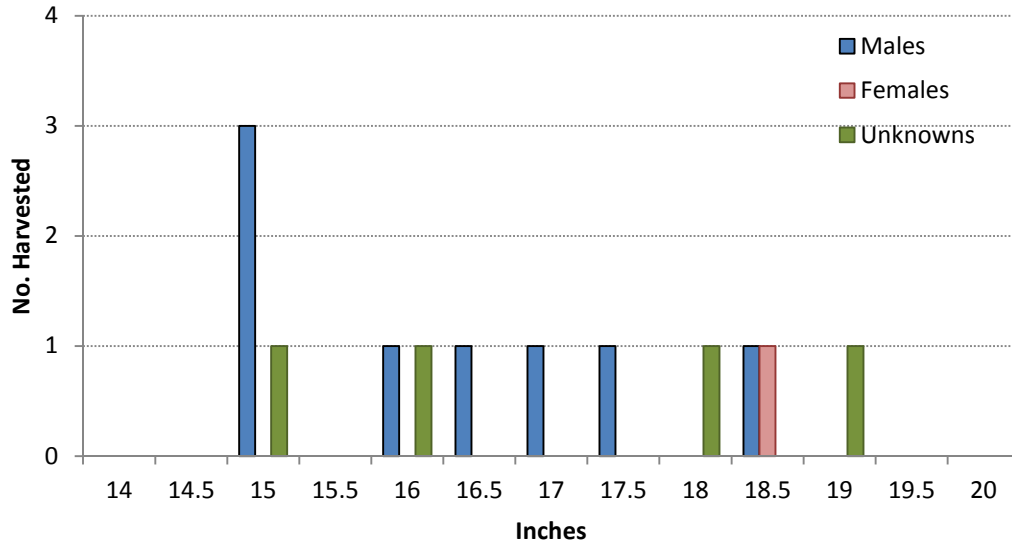
Table 26. Total pounds of walleye and northern pike harvested per Bandmember within 1837 and 1854 Ceded Territory lakes of Minnesota during spring 2018 harvest activities. Data includes harvest from Mille Lacs Lake and all inlands lakes. Row Labels are Tribal License Numbers.

Row Labels	Sum of Walleye Pounds	Sum of Northern Pike Pounds	TOTAL POUNDS
3049	310.0	3.0	313.0
3094	308.6	12.6	321.2
3117	9.0	6.0	15.0
3121	82.3		82.3
3123	80.5		80.5
3313	38.6		38.6
3353	9.0		9.0
3366	27.4		27.4
3587	0.0	0.0	0.0
3588	302.7	14.2	316.9
3646	38.6		38.6
3698	302.3	49.7	352.0
3804	54.2		54.2
3807	3.0		3.0
3814	888.3	52.0	940.3
4076	89.2	5.6	94.8
4119	30.2	5.2	35.4
4153	48.5	70.2	118.7
4231	42.3	42.2	84.5
4253	213.7		213.7
4533	9.2	6.2	15.4
4649	171.9		171.9
4714	75.8	20.2	96.0
4769	399.1		399.1
4947	41.6	10.4	52.0
4956	171.9		171.9
4957	525.8	18.8	544.6
5019	41.2		41.2
5050	36.4		36.4
5133	270.5	7.0	277.5
5391	328.8	5.8	334.6
5558	610.7		610.7
5561	74.4		74.4
5803	395.5	4.6	400.1
5898	365.3	34.4	399.7
5923	264.6	6.2	270.8
6219	76.7	58.6	135.3
6266	30.6		30.6
6270	40.7		40.7
6432	38.5	4.4	42.9
6433	6.8	1.6	8.4
6510	40.4		40.4
Grand Total	6894.6	438.9	7333.5

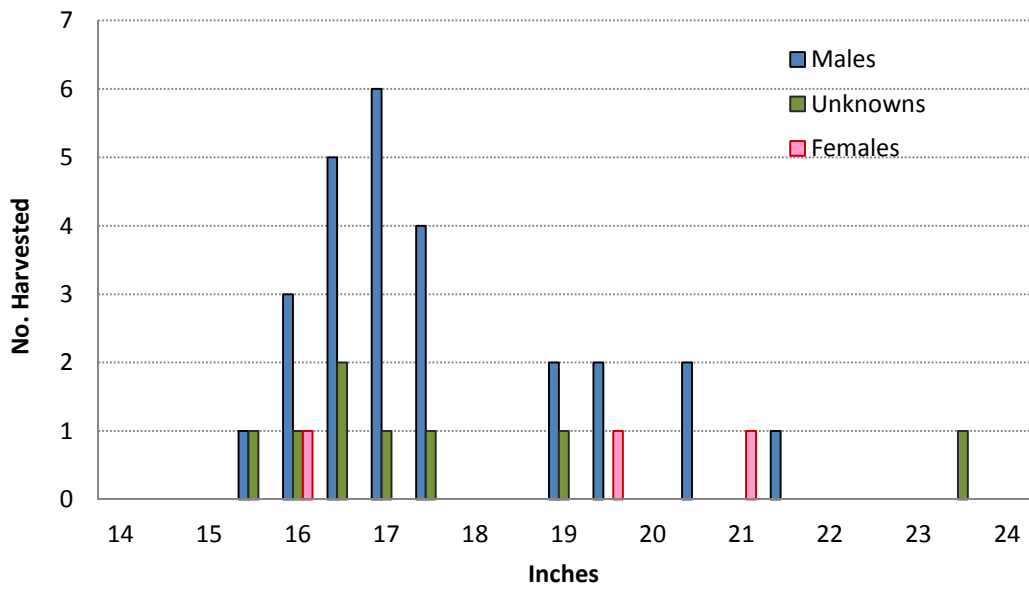
Appendix 1. Length frequency distribution graphs for most of the lakes where the Fond du Lac Band harvested walleyes during the spring 2018 harvest season. Lakes are separated by either 1837 or 1854 Ceded Territories.

1837 Ceded Territory Lakes:

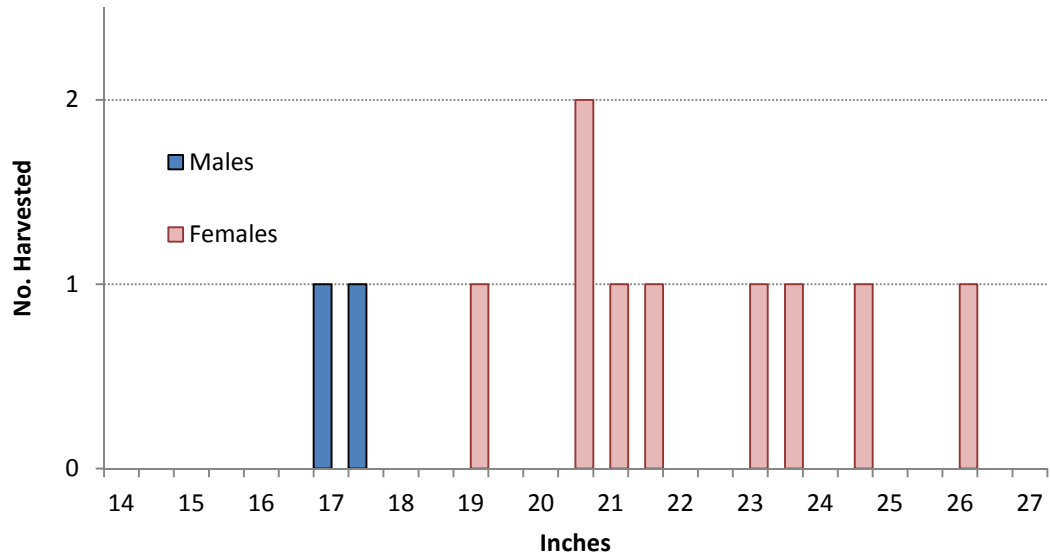
South Long Lake



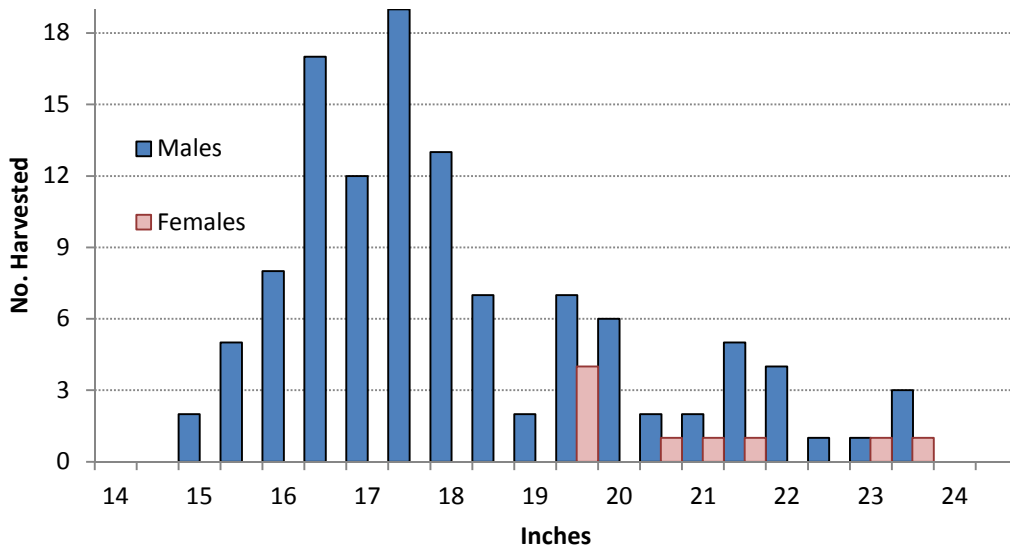
Platte Lake



South Lindstrom Lake

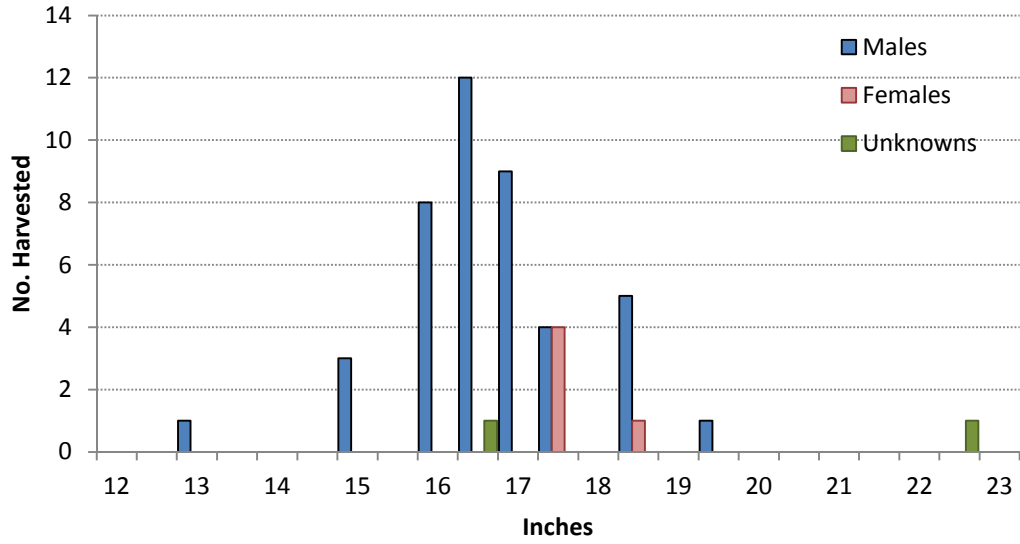


Chisago Lake



1854 Ceded Territory Lakes:

Cadotte Lake



Birch Lake

