



2022 Subsistence Harvest Summary
1837 and 1854 Ceded Territories
Fond du Lac Band of Lake Superior Chippewa

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Summary:

The following is a summary of the 2022 Fond du Lac Band subsistence fisheries harvest.

Harvest activities began on the night of April 28 on Green Lake in the 1837 ceded territory. Over two nights six individuals set 12 nets, harvested 194.8 lbs. of Walleye, and 100.3 lbs. of Northern Pike.

A majority of Fond du Lac subsistence harvest occurred on Mille Lacs Lake, beginning on the night of May 1 and continuing through the night of May 7. This year 71 individuals were issued 95 netting and 20 spearing permits. Netting accounted for a majority (93.4%) of the harvest, Band members set 181 nets which caught 10,459.7 lbs. of the total Walleye harvest (11,197.7 lbs.) The remaining 738.0 pounds were caught by spearing. Fond du Lac Band members caught 1,066 lbs. of Northern Pike. Mille Lacs Walleye harvest was similar to 2021, Northern Pike harvest had a notable increase over 2021.

In the 1854 Ceded Territory participation decreased from 13 to 7 individuals. However, overall harvest increased to 1,108.8 lbs., up from 625.2 lbs. in 2021. Northern Pike harvest also increased to 113.0 lbs. approximately twice the 2021 total.

Organizational:

Declarations: Declarations for the 2022 Walleye harvest were made on a total of seven lakes within the 1837 Ceded Territory of Minnesota and 15 lakes in the 1854 Ceded Territory (Table 1). No declarations were made for Wisconsin 1837 or 1842 Ceded Territory lakes.

Band member Sign-Up: Again in 2022, Fond du Lac (FDL) Band members had the opportunity to sign up online for subsistence harvest activities. By utilizing online sign up, individuals provided Resource Management Department (RMD) staff with phone numbers and email addresses. For Band members with limited internet access sign up by phone remained available. A total of 85 individuals used online sign up, compared to 68 in 2021, and 98 in 2020. It should be noted that several individuals that ultimately participated did not sign up, but either contacted RMD on a daily basis or joined participating family members. There were instances of individuals that did sign up, but did not participate.

Morning Notifications Daily Permits: Each morning, RMD staff would select lakes or landings to open for that night and determine the number of available permits. Staff would then send a mass email and text message to all individuals that provided an email address and / or cell phone number. These notifications would identify the lake and landing for that night. Interested individuals were given until noon to respond. RMD staff would then conduct a lottery-type drawing to distribute available permits. Band members who received a permit were not eligible to receive another until all those that had signed up had participated or declined a permit.

Table 1: Walleye declarations by the Fond du Lac Band for lakes within the Minnesota 1837 and 1854 Ceded Territories. Declarations are either numbers or pounds. Highlighted rows indicate lakes where Fond du Lac harvest activity occurred.

Ceded Territory	Most Recent Harvest Date	Lake	Acreage	County	Declaration (no.)	Declaration (lbs.)	Harvest
MN 1837	10/14/2022	Mille Lacs	128,227	Mille Lacs		10,359	11,197*
MN 1837		Chisago	873	Chisago	186		
MN 1837	4/28/2022	Green	1,715	Chisago	360		194.8
MN 1837		S. Lindstrom	450	Chisago	90		
MN 1837		Platte	1,674	Crow Wing		477	
MN 1837		South Long	1313	Crow Wing	258		
MN 1837		Sullivan	1,221	Morrison		846	
MN 1854		Bassett	403	St. Louis		276	
MN 1854		Echo	1139	St. Louis		848	
MN 1854		Jeanette	612	St. Louis		354	
MN 1854	5/11/2022	Vermilion	4,567	St. Louis		10,000	1,100
MN 1854		Whiteface Res.	4,567	St. Louis		2,000	
MN 1854		Sturgeon	1,706	Pine		653	
MN 1854	5/8/2022	Eagle	382	Carlton		275	8.0
MN 1854		Crooked	272	Lake		69	
MN 1854		Dumbbell	395	Lake		153	
MN 1854		Wilson	650	Lake		134	
MN 1854		Brule	4,327	Cook		682	
MN 1854		Cascade	452	Cook		156	
MN 1854		Crescent	755	Cook		351	
MN 1854		Sea Gull	3,958	Cook		653	
MN 1854		Tom	404	Cook		129	

* 690.5 lbs. transferred from other Tribes; 148.0 lbs. Fall harvest quota allotment

Harvest in 1837 Ceded Territory:

Declarations were made on 7 lakes in 1837 ceded territory (Table 1). Due to relatively late ice-out FDL Band members were only able to fish on Green Lake (Chisago County), and Mille Lacs Lake.

A total of 6 Band members were issued 6 permits over 2 nights at Green Lake. Band members harvested 155.4 and 39.4 pounds of Walleye each of those nights for a total subsistence harvest of 194.8 pounds. Band members fished a total of 12 net nights resulting in a catch rate of 16.2 lbs./net night. 100.3 pounds of Northern Pike were harvested.

Mille Lacs Lake:

The 2022 Walleye quota was agreed upon between the State of MN and the Tribal Resource Departments during the Winter 1837 Fisheries Technical Committee Meeting at 135,000 pounds. This is a decrease from 2021 when the quota was 150,000 pounds. Tribal allocation for the 2022 fishing season was set at 54,700 pounds of Walleye. By cooperative agreement Fond du Lac was allocated after inter-tribal transfer 11,188.2 pounds of Walleye. The State of MN had a Walleye allocation for licensed anglers of 80,300 pounds.

Fond du Lac's 2022 Walleye allocation was 11,188.2 pounds. Fond du Lac started netting activities on the night of May 1, and finished on the night of May 7, with an additional one-night fall netting effort on October 14 (Tables 2, Figure 1). Total harvest for FDL was 11,197.7 pounds of Walleye and 1,066.3 pounds of Northern Pike (Table 2, Figure 1). Walleye harvest was similar to 2021 (11,743.4 lbs.), Northern Pike harvest was greater than 2021 (577.6 lbs.).

Additional species harvested by FDL Band members on Mille Lacs Lake included Smallmouth Bass (26.2 lbs.), Yellow Perch (59.2 lbs.), White Sucker (31.6 lbs.), Rock Bass (14.4 lbs.), Burbot (21.4 lbs.), Tullibee (11.4 lbs.) (Table 3).

Fond du Lac harvest was concentrated at North Garrison and Cedar Creek landings with 5,876, and 5,174 pounds harvested respectively (Table 2).

Gill net harvest rates are calculated as pounds of Walleye/net night \pm CI 95%. Fond du Lac harvested from Cedar Creek (61.1 ± 6.3 lbs./net night) and N. Garrison (61.3 ± 6.4 lbs./net night) and one night on October 14 at S. Garrison (13.5 ± 4.3 lbs./net night) (Figure 2).

For Fond du Lac Band members, catch rate, calculated as the pounds of Walleye harvested per net night, was highest on May 1 (76.8 ± 11.6 lbs./net night). Catch rates remained steady until May 7 then sharply declined (Figure 2).

Fond du Lac had strong participation in 2022. A total of 71 Band members participated compared to 79 in 2021, 63 in 2020, and 56 in 2019. After a low of 33 participants in 2018 this upward trend is encouraging. Maximum number of participating individuals was 34 Band members on the night of May 2 (Table 4). Most Band members, 44 individuals, participated in harvest activities one night, however 25 participated two nights and 2 Band members participated in harvest activities three nights.

Individual Band members harvested on average 155.5 ± 22.6 pounds of Walleye. This is higher than 2021 (135.3 ± 18.4 lbs.), but lower than 2020 and 2019 (229.9 ± 29.5 and 203.3 ± 30.5). Similar to previous years, individual total harvest was highly variable, ranging from 9.8 pounds to 384.4 pounds. These variations are to be expected given the differences in individual participation within a year, and the variability in participation among years.

A total of 6,118 walleyes were harvested by FDL (Table 3). Sex distribution was heavily skewed male, 86.1% male, 13.9% female (Figures 4a and 4b). This data only includes the spring effort. Walleye harvested in October were not in spawning condition and were unable to be sexed. Lengths of Walleye harvested ranged from 13.6 to 26.5 inches (Figures 4a and 4b). Despite this relatively wide range, a majority of Walleye harvested (75.0%, both sexes) were between 15.5 and 19.0 inches.

Otoliths were collected from five Walleyes of each sex, 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 186 Walleye (Table 5). The most common ages observed were from the 2013-year class (age-9) and the 2017-year class (age-5) (Table 5 and Figure 5). Walleye growth rate presented as length at age and separated by sex is shown, females are typically larger than males at the same age (Figure 5).

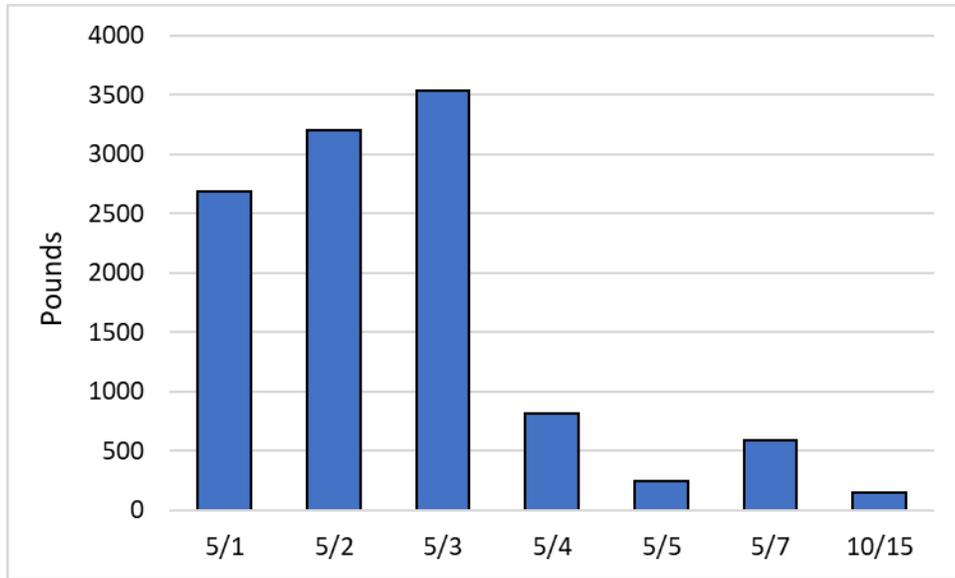


Figure 1: Total Walleye harvested (pounds), by Fond du Lac Band members, organized by date. Totals include spearing and netting harvest methods.

Table 2: Subsistence harvest organized by night and landing for the Fond du Lac Band, Mille Lacs Lake 2022

	5/1/2022 (N. Garrison)	5/2/2022 (N. Garrison)	5/3/2022 (Cedar Crk)	5/4/2022 (Cedar Crk)	5/5/2022 (Cedar Crk)	5/7/2022 (Cedar Crk)	10/14/2022 (S. Garrison)	Total
Permits	20	39	34	8	3	5	6	115
Nets	36	57	45	16	6	10	11	181
Walleye (no.)	1,592	1,782	1,815	425	128	312	64	6118
Walleye (lbs.)	2,680	3,196	3,533	810.6	242.8	587.7	148.2	11,197.7
Northern (no.)	63	115	43	22	2	4	25	274
Northern (lbs.)	236	463	138.8	113.5	8.8	12.2	95.4	1,066.3
Walleye no. per net	44.2	31.3	40.3	26.6	21.3	31.2	5.8	33.8
Walleye lbs. per net	74.4	56.1	78.5	50.7	40.5	58.8	13.5	61.9
Northern no. per net	1.75	2.0	1.0	1.4	0.3	0.4	2.3	1.5
Northern lbs. per net	6.5	8.1	3.1	7.1	1.5	1.2	8.7	5.9

Table 3: Additional species harvested Mille Lacs Lake 2022, by Fond du Lac Band subsistence fishery

	5/1/2022 (N. Garrison)	5/2/2022 (N. Garrison)	5/3/2022 (Cedar Crk)	5/4/2022 (Cedar Crk)	5/5/2022 (Cedar Crk)	5/7/2022 (Cedar Crk)	10/14/2022 (S. Garrison)	Total
Perch (no.)	1	41	5	8	0	2	0	57
Perch (lbs.)	0.8	43.6	4.6	8.4	0	1.8	0	59.2
W. Sucker (no.)	2	13	4	1	0	0	2	22
W. Sucker (lbs.)	2.4	17.8	5.4	1.6	0	0	4.4	31.6
Burbot (no.)	7	5	1	0	0	0	0	13
Burbot (lbs.)	11.6	8.4	1.4	0	0	0	0	21.4
Tullibee (no.)	0	3	2	0	0	0	2	7
Tullibee (lbs.)	0	5	3.2	0	0	0	3.2	11.4
Smallmouth Bass (no.)	1	4	1	2	0	0	8	16
Smallmouth Bass (lbs.)	0.8	10.6	0.8	5.4	0	0	8.6	26.2
Rock Bass (no.)	1	9	0	0	0	0	13	23
Rock Bass (lbs.)	0.6	5.6	0	0	0	0	8.2	14.4
Black Crappie (no.)	0	5	0	0	0	0	0	5
Black Crappie (lbs.)	0	3.4	0	0	0	0	0	3.4

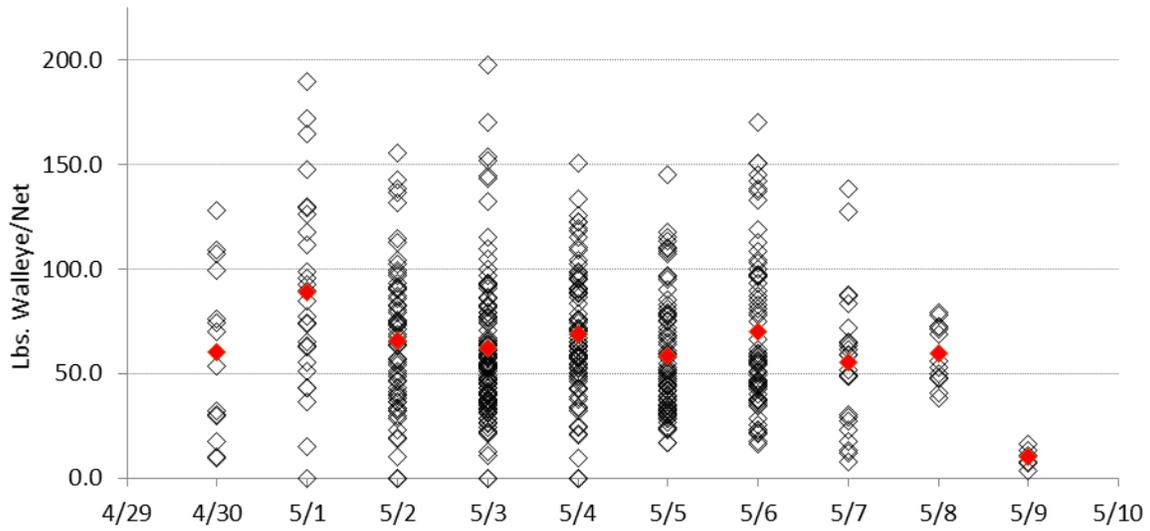


Figure 2: Average pounds per net night of Walleye harvested, all Bands, Mille Lacs Lake, spring 2022. Organized by date. Black diamonds indicate each individual net, red diamonds indicate mean for that night.

Table 4: Number of participants organized by date.

Day of Week	Date	Number of Participants
Saturday	5/1	20
Sunday	5/2	34
Monday	5/3	30
Tuesday	5/4	8
Wednesday	5/5	3
Thursday	5/6	5
Saturday	5/8	6
Friday	10/14	6

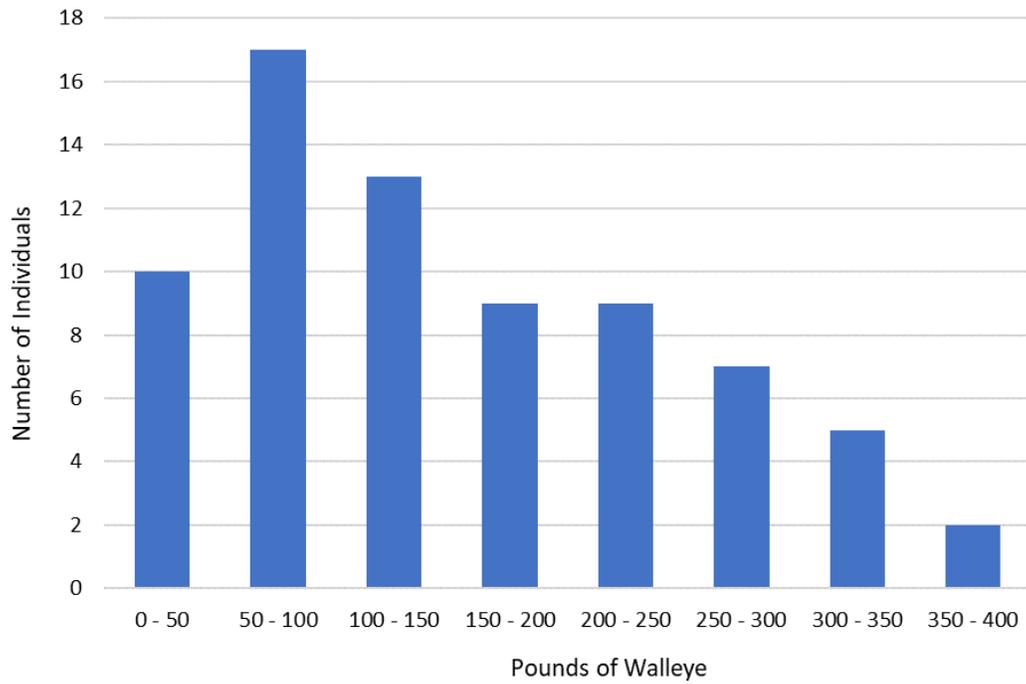


Figure 3: Pounds of Walleye harvested per Fond du Lac Band member, Mille Lacs Lake 2022. For example, 17 individuals harvested between 50 and 100 pounds in 2022.

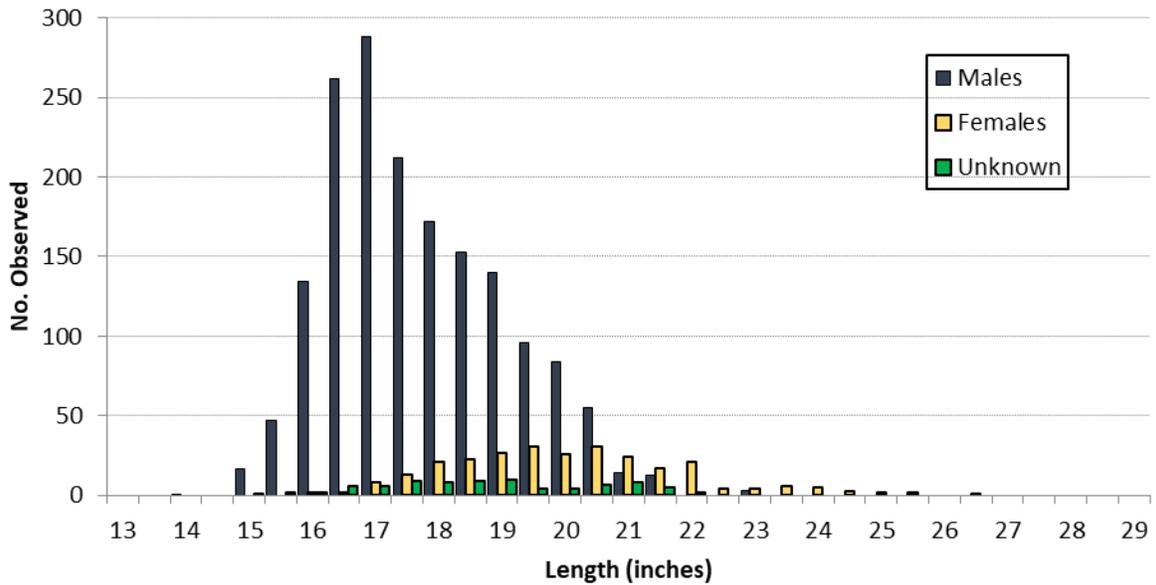


Figure 4a: Length frequency distribution of all Walleye harvested by Fond du Lac Band on Mille Lacs Lake during 2022. Males are shown in blue, females in yellow and unknown individuals in green bars.

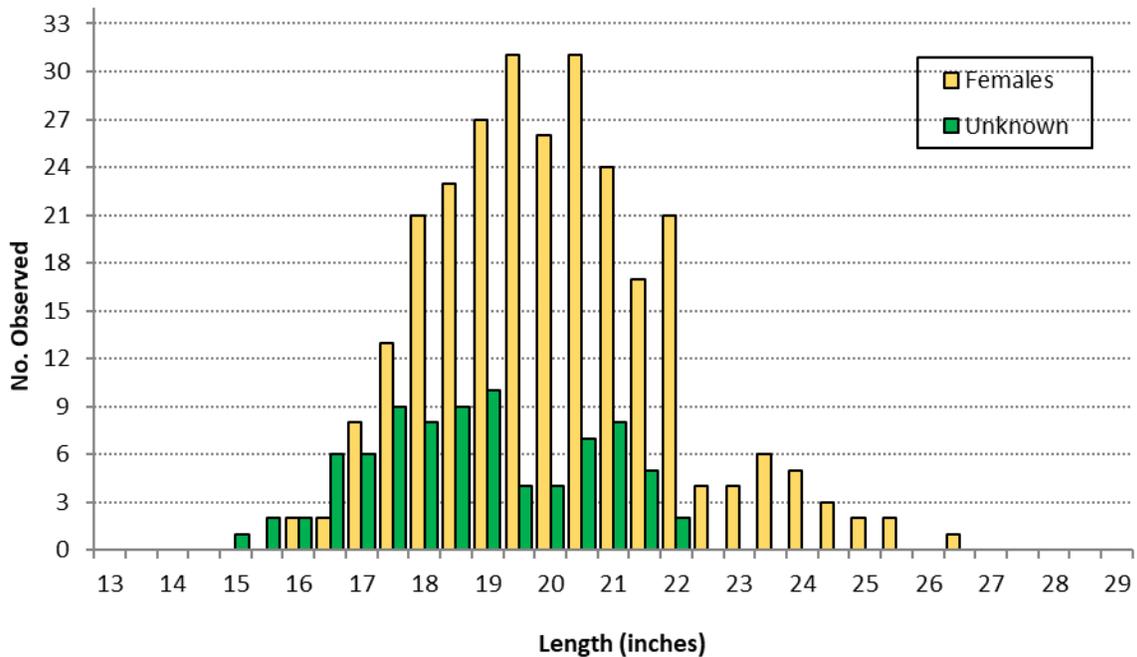


Figure 4b: Length frequency distribution of female and unknown Walleye harvested by Fond du Lac Band on Mille Lacs Lake during 2022. Females in yellow and unknown individuals in green bars, males are omitted.

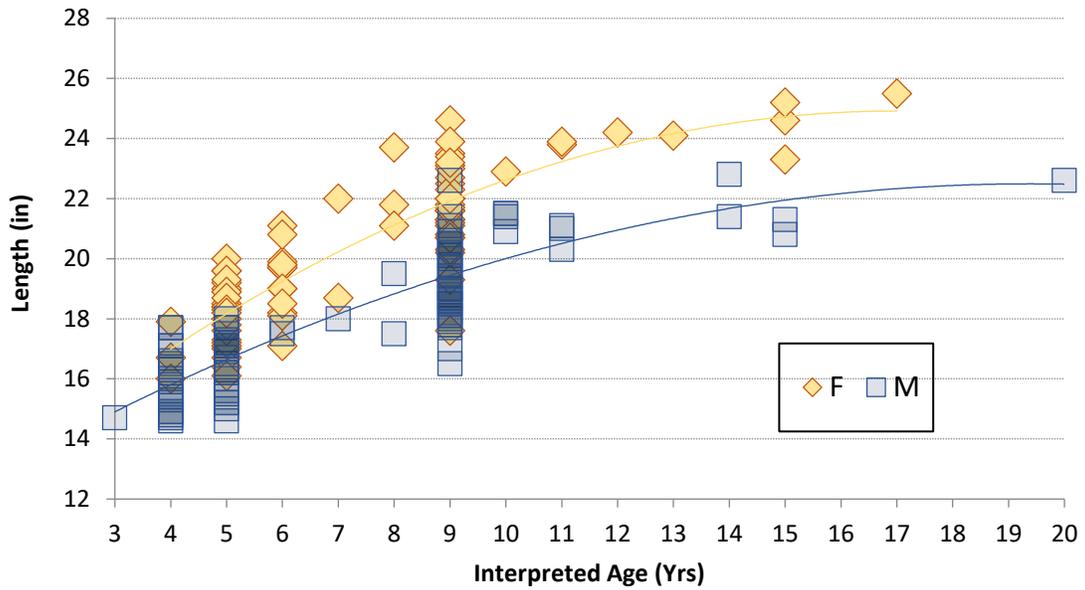


Figure 5: Length at age of Walleyes, separated by sex, harvested from Mille Lacs Lake during spring 2022 harvest activities. Ages interpreted from otoliths collected during harvest.

Table 5: Ages and cohort assigned to a subsample of Walleyes harvested from Mille Lacs Lake during spring 2022 harvest activities. Ages interpreted using otoliths collected during harvest.

Cohort	Age	M	F	Total
2019	3	1	0	1
2018	4	19	3	22
2017	5	23	27	50
2016	6	2	13	15
2015	7	1	2	3
2014	8	2	3	5
2013	9	41	28	69
2012	10	4	1	5
2011	11	3	2	5
2010	12	0	1	1
2009	13	0	1	1
2008	14	2	0	2
2007	15	2	3	5
2006	16	0	1	1
2003	19	1	0	1

Harvest in 1854 Ceded Territory:

Declarations were made on 15 lakes in 1854 ceded territory. 1854 subsistence harvest began the night of May 8 on Eagle Lake in Carlton County. There 2 Band members were issued permits, they spent one night setting a total of 4 nets. While Walleye harvest was poor, Northern Pike harvest was average. A total of 8.0 pounds of Walleye, and 79.0 pounds of Northern Pike were harvested (Table 6).

A majority of the 1854 subsistence harvest occurred on Lake Vermillion over the nights of May 10 and 11. Over these two nights, seven permits were issued to five Band members. Compared to other harvest efforts Band members set more nets per person, setting a total of 22 nets over both nights. Walleye harvest was strong both nights at 689.8 and 411.0 pounds respectively, total harvest was 1,100.8 pounds (Table 6).

Additional species harvested by FDL Band members in 1854 Ceded Territory included Tullibee (40.6 lbs.), White Sucker (14.8 lbs.), Yellow Perch (9.0 lbs.), Black Crappie (5.0 lbs.), Rock Bass (4.2 lbs.), and Bluegill (2.8 lbs.) (Table 7)

Catch rates (pounds of Walleye/net night \pm CI 95%) in 1854 Ceded Territory lakes were highly variable. Ranging from a low of 2.0 ± 3.1 lbs./net night (Eagle Lake), to 50.0 ± 9.5 lbs. (Lake Vermillion). Catch rates on Lake Vermillion were considerably higher than previous years. This is likely due to late ice-out statewide, delaying Walleye spawning and allowing Band members to target Lake Vermillion during that crucial period.

Subsistence harvest participation in the 1854 Ceded Territory was lower than 2021. Seven different individuals were issued nine permits in Ceded Territory lakes. Five individuals opted to participate in harvest activities one night, while two participated two nights. As expected catch per individual varied widely from 1.0 to 420.4 pounds.

Fond du Lac Band members harvested a total of 751 Walleyes in 1854 Ceded Territory (Table 6). Sex distribution was heavily skewed male, 93.4% male, 3.9% female, 2.7% were unknown. Lengths of walleye harvested ranged from 13.6 to 26.8 inches (Figure 6). Despite this relatively wide range, a majority of Walleye harvested (75.0%, both sexes) were between 15.0 and 17.5 inches.

Discussion:

Despite a relatively low Mille Lacs Lake Walleye quota, 2022 proved to have a strong year for Fond du Lac Band members. Catch rates were consistent with previous strong years, and participation continues to increase/stabilize. A record high harvest on Lake Vermillion is worth noting as an opportunity for future harvest.

The fisheries department is committed to the future and plans to track demographic data while taking steps to facilitate mentorship and participation from the next generation. Band members wishing to serve as a mentor or give boat rides are welcome to contact the Fisheries Program at Resource Management.

Moving forward, Mille Lacs Walleye population, and year class trends show promise. We are confident that traditional subsistence harvest opportunities will continue into the future.

Acknowledgements:

Fond du Lac Resource Management staff work incredibly hard every spring to provide these subsistence harvest opportunities. Daily notifications were sent out by Terri Redding. Boat landings were patrolled and protected by Officers Duane Barney, Blake Evanson, Darren Seppala, Mike Smith, and Josh Whitebird. Natural resource technicians Eli Goodreau, John Goodreau, Sam Johnson, Lance Overland, Kipp Perrault, Terry Perrault, and Matt Weske worked late nights and early mornings to collect necessary data for this program to persist. Kelsey Taylor and her invasive species team; Madison Bear, Philip Defoe, and Emily Rakos provided labor and materials in order to stay invasive species compliant. Overall another successful harvest was made possible through these combined efforts.

Table 6: Subsistence harvest organized by date and lake for the Fond du Lac Band in 1854 Ceded Territory 2022.

	5/8/2022 (Eagle Lake)	5/10/2022 (Lake Vermillion)	5/11/2022 (Lake Vermillion)	Total
Permits	2	3	4	9
Nets	4	11	11	26
Walleye (no.)	6	471	274	751
Walleye (lbs.)	8.0	689.8	411.0	1,108.8
Northern (no.)	32	2	7	41
Northern (lbs.)	79.0	10.0	24.0	113.0
Walleye per net	1.5	42.8	24.9	28.8
Walleye lbs. per net	2.0	62.7	37.4	42.6
Northern no. per net	8	< 1	< 1	1.6
Northern lbs. per net	19.8	< 1.0	< 1.0	4.3

Table 7: Additional species harvested, organized by date and lake for the Fond du Lac Band in 1854 Ceded Territory, 2022.

Species	5/8/2022 (Eagle Lake)	5/10/2022 (Lake Vermillion)	5/11/2022 (Lake Vermillion)	Total
Perch (no.)	0	8	3	11
Perch (lbs.)	0	6.6	2.4	9
White Sucker (no.)	0	1	8	9
White Sucker (lbs.)	0	1.4	13.4	14.8
Tullibee (no.)	0	12	3	15
Tullibee (lbs.)	0	30.6	10	40.6
Rock Bass (no.)	7	0	1	8
Rock Bass (lbs.)	3.6	0	0.6	4.2
Black Crappie (no.)	7	0	0	7
Black Crappie (lbs.)	5.0	0	0	5.0

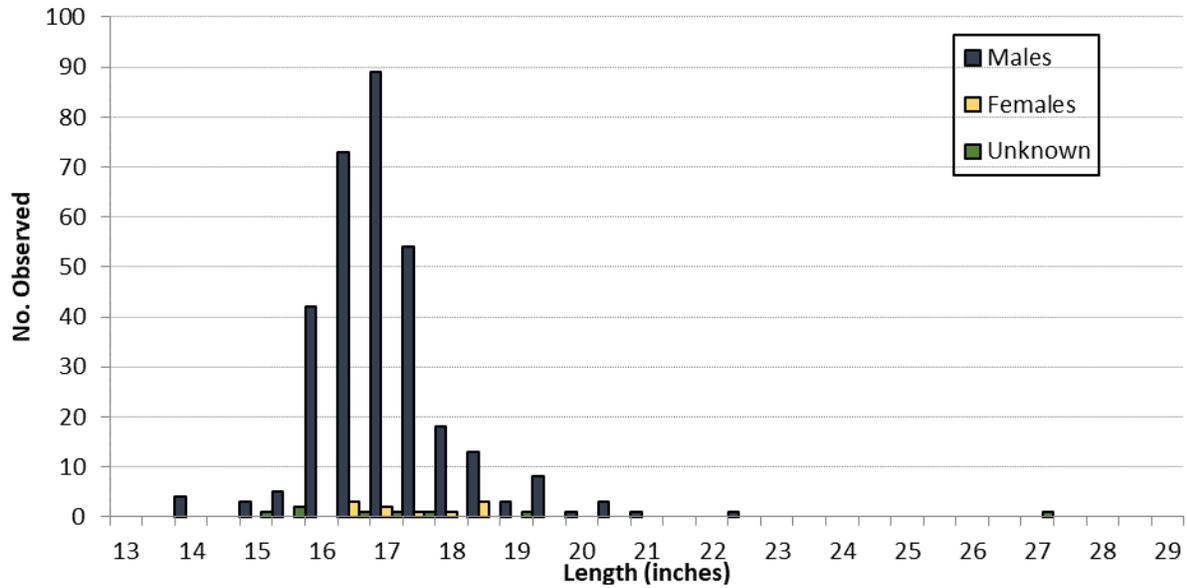


Figure 6: Length frequency distribution of all Walleye harvested by Fond du Lac Band in 1854 Ceded Territory during 2022. Males are shown in blue, females in yellow and unknown individuals in green bars. Note the lack of females represented in harvest.