

2023 Subsistence Harvest Summary
Mille Lacs Lake
Fond du Lac Band of Lake Superior Chippewa

Prepared by Eric Torvinen

Summary:

The following is a summary of the 2023 Fond du Lac Band (FDL) Mille Lacs Lake fisheries harvest.

Due to late ice out, harvest activities begun May 2 and continued until May 11. No harvest occurred on May 5th due to ice conditions. A one-night fall netting effort occurred the night of October 14th.

A total of **94** Band members were issued 155 netting and 10 spearing permits this year. This shows an increase in participation over 2022 (71 participants) (Figure 2).

The 2023 Mille Lacs Lake Walleye quota was 175,000 pounds, an increase from the 2022 quota (135,000 lbs.) FDL was allocated 14,343 lbs. of the tribal portion. Netting accounted for a majority (98.5%) of the harvest. Band members set 242 nets which caught 13,600.3 lbs. of the **total Walleye FDL harvest, 13,806.7 lbs.** The remaining 206.4 lbs. were caught spearing.

Fond du Lac Band members caught 1,831.6 lbs. of Northern Pike. This continues the trend of increasing Northern Pike harvests by FDL (Table 1).

Table 1: Fond du Lac total Walleye quota and harvest, Northern Pike harvest also included.

	2023	2022	2021	2020	2019	2018	2017	2016
Walleye Quota (lbs.)	14,343	11,188	11,853	15,090	11,853	8,722	3,276	3,108
Walleye Harvest (lbs.)	13,806	11,197	11,743	14,481	11,387	6,378	2,805	2,924
Walleye Harvest (no.)	6,503	6,118	6,154	7,997	6,739	3,777	1,019	705
Northern Harvest (lbs.)	1,831	1,066	577	393	515	176	295	4.4

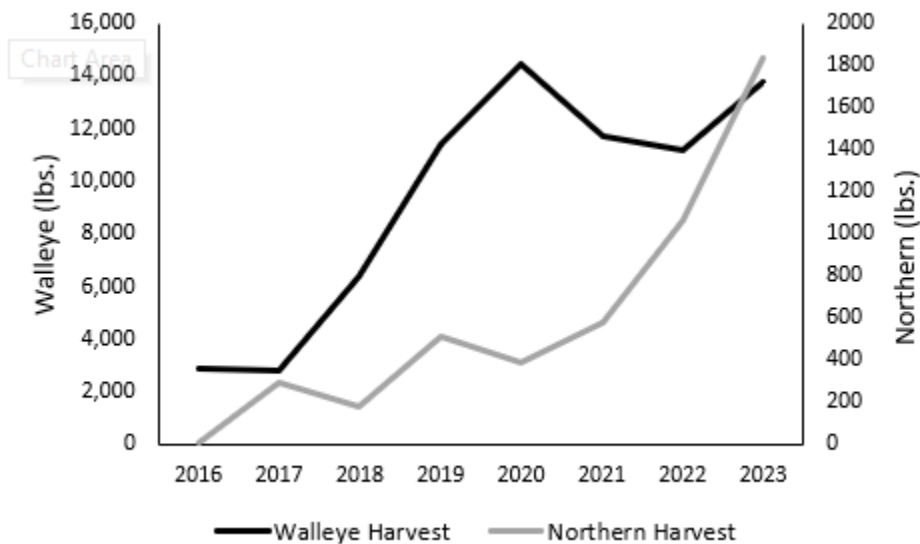


Figure 1: Fond du Lac total Walleye and Northern Pike harvest over time

Organizational:

Band member Sign-Up: Again in 2023, 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 125 individuals used online sign up, compared to 85 in 2022, 68 in 2021, and 98 in 2020. It should be noted that several individuals that participated did not sign up. A significant number of individuals that did sign up, did not participate.

Morning Notifications Daily Permits: Each morning, RMD staff would identify which landing to open. Staff would then send a mass email and text message to all individuals that provided contact information. Interested individuals were given until noon to respond. The night of May 4 no landing was deemed accessible due to ice conditions. Band members were notified, no harvest activities occurred.

Participation:

Fond du Lac had strong participation in 2023. A total of 94 Band members participated compared to 71 in 2022, 79 in 2021, and 63 in 2020. After a low of 33 participants in 2018 this upward trend is encouraging (Figure 2). This is due to the improved health of the Mille Lacs fishery, increased efforts by Resource Management Staff to offer the Elder Ride Program, and a Youth Harvest Event.

Fond du Lac Resource Management did not restrict the available permits this year. This resulted in high turnouts on two nights. On the nights of May 3 and May 5, 44, and 40 Band members participated respectively. Most Band members only participated in harvest activities one night. However, 25 participated two nights, 9 three nights, and 3 Bandmembers participated in harvest activities four nights.

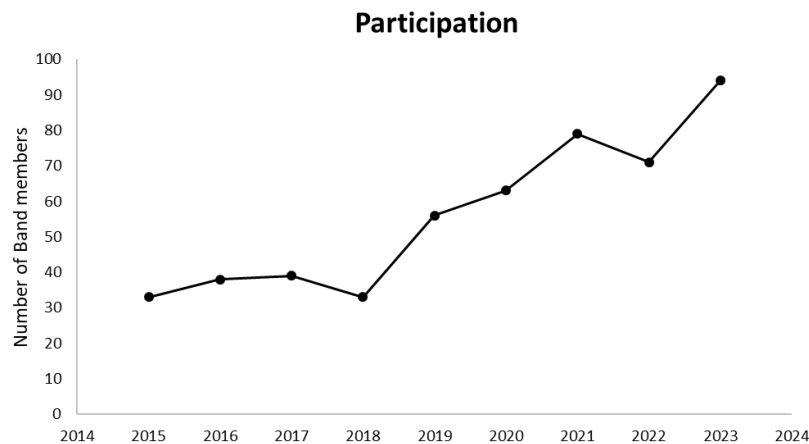


Figure 2: The total number of individual Fond du Lac Band members that participated in the Mille Lacs Subsistence Fishery. Organized by year.

Harvest:

The 2023 Walleye quota agreed upon between the State of MN and the Tribal Resource Departments during the Winter 1837 Fisheries Technical Committee Meeting was 175,000 lbs. This is an increase from the 2022 quota, 135,000 lbs. Tribal allocation for the 2023 fishing season was set at 75,000 lbs. of Walleye. By cooperative agreement Fond du Lac was allocated 14,343 lbs. The State of MN had a Walleye allocation for licensed anglers of 100,000 lbs.

Fond du Lac started Mille Lacs harvest activities on the night of May 2, and finished on May 11, with an additional one-night fall netting effort on October 14. Total harvest for FDL was 13,806.7 pounds of Walleye and 1,831.6 pounds of Northern Pike. Withholding 2020, covid year, both Walleye and Northern Pike harvests were the largest in a decade (Table 1).

Additional species harvested by FDL Band members on Mille Lacs Lake included, Yellow Perch (91.0 lbs.), White Sucker (59.8 lbs.), Rock Bass (15.6 lbs.), Smallmouth Bass (14.2 lbs.), Tullibee (12.0 lbs.), and Burbot (5.8 lbs.).

Fond du Lac harvest was concentrated at Cedar Creek, where 9,752.6 lbs. of Walleye were harvested. 3,822.7, and 231.4 lbs. were harvested at S. Garrison and N. Garrison respectively.

Gill net catch rates are calculated as, pounds of Walleye per/net night \pm CI 95%. Catch rates were similar at both S. Garrison (52.6 \pm 6.4 lbs/net) and Cedar Creek (58.1 \pm 4.8 lbs/net) landings.

Gill net catch rates vary throughout the spawning season, usually increasing to a peak rate, then decreasing as water temperatures warm. In 2023 peak catch rates occurred on May 8 (91.3 \pm 18.4 lbs/net night) (Figure 2).

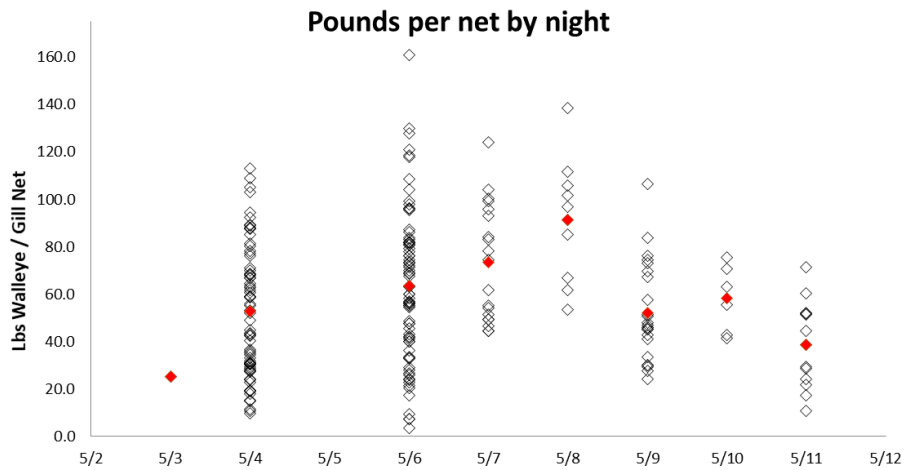


Figure 3: Average pound/net night of Walleye harvested from Mille Lacs Lake by Fond du Lac during spring 2023. Black diamonds represent each net, red diamonds indicate mean for each night.

Fond du Lac Walleye harvest averaged 148.5 ± 26.2 lbs. per Band member in 2023. This is statistically similar to 2022 (155.5 ± 22.6 lbs.), but higher than 2021 (135 ± 18.4 lbs.) (Figure 3). Individual total harvest was highly variable, ranging from 0 pounds to 636.4 lbs. (Figure 4). These variations are to be expected given the differences in individual participation. Though as efforts to increase participation progresses, it is expected harvest will be evenly distributed amongst harvesting Band members.

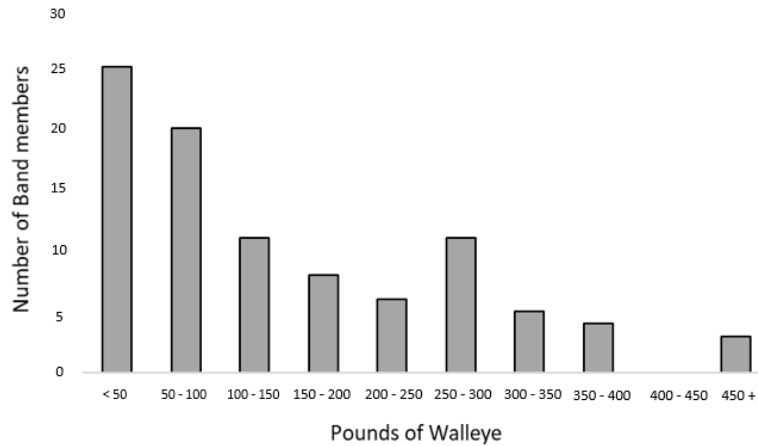


Figure 4: Pounds of Walleye harvested per Fond du Lac Band member, Mille Lacs Lake 2023.

A total of 6,503 walleyes were harvested by FDL (Table 1). Sex distribution was heavily skewed male, 85.0% male, 15.0% female (Figures 5a and 5b). Sex data only includes spring effort. Walleye harvested in October were not in spawning condition, sex was not able to be determined. Lengths of Walleye harvested ranged from 13.6 to 26.8 inches (Figures 5a and 5b). Despite this relatively wide range, a majority of Walleye harvested (65.0%, both sexes) were between 15.0 and 19.0 inches.

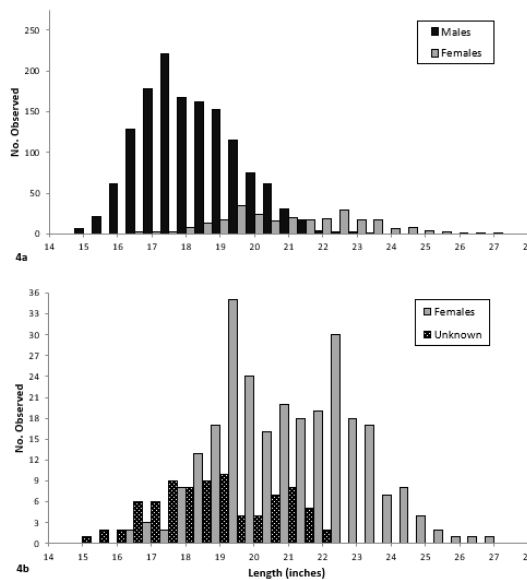


Figure 5a and 5b: Length distribution of Walleye harvested by Fond du Lac Band on Mille Lacs Lake during spring 2023. Figure 5a show males and females. Figure 4b shows females and unknowns with males removed. Walleye harvested in October are not in spawning condition, sex was not able to be determined.

A total of 164 otoliths were collected for aging analysis efforts. Subsampling protocols indicate otoliths from five Walleye of each sex, per 0.5-inch group, should be collected, e.g. five males and five females between 15.0 and 15.49 inches. The most common ages observed were from the 2013-year class (age-10) and the 2017-year class (age-6) (Figure 6, Table 2). This suggests these two strong year classes continue to make up the majority of the harvestable biomass.

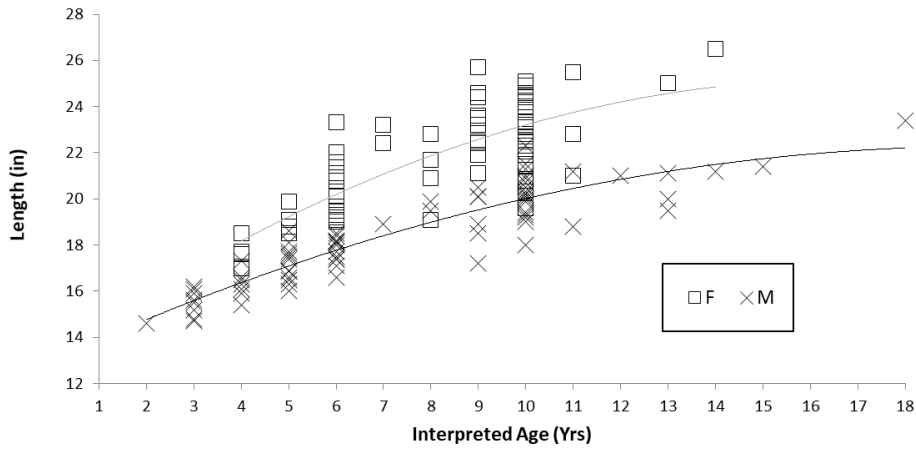


Figure 6: Length at age of Walleye, separated by sex, harvested from Mille Lacs Lake during spring 2023 harvest activities. Age interpreted from otoliths collected during harvest.

Table 2: Year class assigned to a subsample of Walleyes harvested from Mille Lacs Lake during spring 2023.

Cohort	Count
2021	1
2020	8
2019	11
2018	18
2017	26
2016	3
2015	6
2014	17
2013	41
2012 +	14

Discussion:

Due to the large quota, 2023 proved to be an excellent strong year for Fond du Lac Band members. Catch rates were consistent with previous strong years, and participation continues to increase. It has been some time since 44 permits were issued for one night. Band members stated that these busy boat ramps and positive outlook had some resemblance to years past when quota was not as limiting and participation was high. It should be noted that the availability of elder rides facilitated participation. Resource Management hopes to be able to continue to offer this service in the future.

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 boats rides are urged to contact Eric Torvinen at Resource Management.**

Moving forward, Mille Lacs Walleye population, and upcoming 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 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 Tom Folsesi, Pete Durfee, Cord Timo, Blake Evanson, Darren Seppala, Mike Smith, and Josh Whitebird. Natural resource technicians Eli Goodreau, John Goodreau, Shaun Himango, Jeffery Reynolds, and Matt Weske worked late nights and early mornings to collect necessary data for this program to persist. Tom Howes and Terry Perrault pulled double duty lending expertise and providing elder rides. 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. A special thanks goes out to both Carson Becicka, and the Indigenous Conservation Crew, Gabe Hudson, Devin Lintgen, Raymond Greyhair IV, Lyssa Lawrence-Northrup, and Hillary Olsen. Overall another successful harvest was made possible through these combined efforts.

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