

Minnesota 1837 Ceded Territory Fisheries Committee
January 17-18, 2024 at the Brainerd Arboretum
January 17

1. Introductions

Mille Lacs Band – Kelly Applegate, Carl Klimah, Perry Bunting

Fond Du Lac Band – Thomas Howes, Eric Torvinen

GLIFWC – Jon Gilbert, Joe Dan Rose, Mark Luehring, Ben Michaels, Adam Ray, Aaron Shultz, Kia Hmielewski

Voight Task Force – Conrad St. John

MN DNR – Brian Nerbonne, Patrick Schmalz, Kevin McDonnell, Tom Jones, Eric Jensen, John Kempe, Nate Painovich

2. Review and approve agenda (Action)

3. Distribute past meeting minutes (Information) – Reviewed meeting minutes as completed. Formal approval here.

4. Update 2023 Harvest (Information)

- a. State – Walleye kill was 62,525 lb of 100,300 lb quota. Yellow Perch harvest was approximately 6,000 lb. Northern pike kill was 5,416 lb. Tullibee harvest was 629 lb, and all occurred in winter. No burbot harvest. Winter effort was low compared to recent years. Summer effort was similar to effort since 2014.
- b. Bands – Walleye harvest was 61,964 lb of 74,700 lb quota. Pike harvest was 6,083 lb. and perch harvest was 1,081 lb. Additional species and length-frequencies in handout.

5. Update of 2023 assessment data (Information)

- a. Annual Fall Assessment (MNDNR) – Covered most of it in October. Figures and Tables in state book. Walleye GN CPE in 2023 lower than 2022. Models predicted less of a decline, and the population estimate agreed with predictions. Figure 18 on relative survival of YOY walleye is new information. Relative survival has been low since 2015. Figure 19; condition factor of all sizes declined, probably due to lack of forage. Spring 2024 angler catch rates will likely be higher than last year. Age 0 walleye were small, forage was low, so 2023 YC not expected to be strong. Some speculations about YOY yellow perch abundance. Zooplankton numbers remain low resulting in a lack of food in recent years that likely contributes to poor survival of perch.
- b. 2023 population assessment (MNDNR) – Preferred model was Chen and Lloyd stratified by sex. Abundance was 600,000 fish. Near midpoint of past observations, but well below the 998,000 estimated in 2018. Jon Gilbert viewed this as a serious decline over the last five years. Pike estimates have remained near 50,000 fish.
- c. GLIFWC Assessments (Electrofishing) – reviewed in October. New info was graph of size distributions by year. 2023 walleye were very small.

6. Walleye modeling reports (Discussion)

- a. Modeling subgroup summary – Presented the usual three models: State split sex and bands split sex and combined sex. Goal: to review status of walleye population.

All three models indicate decrease in mature biomass of 5% to 10%. 2013 and 2017 are major contributing year classes.

All three models similar for a number of metrics. State model usually a little higher than Madsen models.

From age 3 to 10, all models were similar. Age 1 and 2 have differences, especially state model

which estimated more age 2 walleye.

Females SSB decreasing, male SSB about the same as last few years.

7. Set 2024 walleye harvest level for Mille Lacs Lake (Discussion/Action)

DNR presentation to “set the stage” –

Reviewed the status decision tree – GN CPE, juvenile index.

Current SSB in the 52 net assessment is 14.5 lb/net. Juv index is 0.94. These would put us in category 2.

For 2024, the State’s model estimated 1.2 million lb mature biomass; with the 2002-13 median 1.5 million lb.

2013 and 2017 YC still strong. 2021 looks good and will be maturing in 1-2 years.

SSB below average, recruitment slightly below benchmark.

Actual exploitation rates (not quotas) since 2014 ranged from 2% to 7%.

Goals are still to maintain a self-sustaining walleye population, keep the state season open with harvest when possible, tribal harvest to meet community needs, don’t go below lowest observed SSB.

Hoenig “irrational” to increase exploitation rate when population goes down. Kelly agrees that harvest should go down if abundance goes down. Conrad agrees. They believe risk is increased substantially. Tom Howe agrees that future direction should be more cautious.

Although the designation of Condition 2 looks really bad, both sides acknowledged that the models suggest that the population is not close to the lowest observed. Bands are not suggesting that we return to harvest levels similar to 2013/2014, just that the decline should be recognized and considered when setting safe harvest levels.

Joe Dan is also concerned about lower juvenile index and small size of YOY walleye. Also says that Bands expressed concern last year about the increase to 175,000 lb not being sustainable.

Brian – gill nets are variable and we shouldn’t have a knee jerk reaction to one year of lower catch in gill nets. Juvenile index is a problem/not a problem based on very slight changes (slightly above 1 to slightly below 1). Reproduction is not limited by population size. Population is similar to last 4 years. Hoenig suggested that we should look at exploitation rates over the last 4 years when considering exploitation for this year.

Bands think that exploitation rate should go down if population goes down. Brian points out that recruitment and natural mortality are driving the population changes more than fishing mortality.

Hoenig – we need to establish some principles about how to set harvest levels. Patrick agrees. We have 10 more years of data and we should consider using this data to revisit the mechanics of the decision tree.

Joe Dan – in past years, we had projections from Missy. This year we don’t have projections to help us understand the effect of different harvestable surplus numbers. We knew from projections that population would go down this year. Expectation is that if population went down, then quotas would need to go down. Joe Dan suggests that quotas should go down at least proportional to decline in SSB (10% by state model).

Ben was concerned about incremental decreases in abundance. We don’t want to get so low that we are forced to drastically reduce quotas for either side.

a. 2024 walleye harvest level for Mille Lacs Lake

State proposed 170,000 lb.

Band proposal 10% less than last year, 157,500 lb.

After caucus, bands have determined that there are all kinds of numbers that could be used. At same exploitation rate, harvestable surplus would be 148,000 lb. So bands think 157,500 is as high as they would want to go. Aaron wants to look at projections before settling on a number. Hoenig suggests that we don't have guiding principles. Want to attach that exploitation rates should decrease as SSB decreases. But doesn't want to create rules because lake can surprise us. Modelling subcommittee could work on establishing some guidelines.

Patrick – there are lots of different policies and approaches that modeling subcommittee can look at.

State believes that the population is not in a bad place, but recognizes bands' concerns and some discomfort even with the 157,500 lb. State is willing to accept 157,500 lb.

Kelly appreciates the state's honoring the tribes' concerns. Others expressed similar sentiments.

b. Effect of 2024 harvest on 2025 spawning stock

Mark made projections using different methods than we had in the past.

This model is simpler than Missy's model.

Proposed harvestable surplus projected to decrease by about 4% next year.

Longer term projections are very dependent on recruitment.

Some discussion about likelihood of having a strong year class in the future, and effects of environmental variables.

8. Midseason regulation changes (Discussion)

State is interested in using mid-season triggers to adjust regulation, and to start regulation conservatively. State wants to follow protocols with 60 day notice before season starts.

Similar process to last year.

9. Northern pike (Action)

a. Northern Pike surplus production models – GLIFWC

Harvest up slightly in 2023, model shows slight increase in population.

b. Northern Pike harvest level goals

Harvest has been below goals. Would like to see population below 200,000 lbs. Harvest cap is 100,000 lb. The committee recognizes 100,000 lb of pike harvest is not sustainable, but the harvest cap is likely ok for another year since actual harvest has been much less than the cap.

Anglers are interested in opportunity to catch large fish. Winter spearers want to target large fish as well. State is trying to preserve larger fish for fishing but also for suppressing smaller fish.

c. Northern Pike 2024 harvest limit

100,000 lb for 2024.

10. Harvest limits for other species in Mille Lacs Lake (Action)

a. Yellow Perch

73,000 lb quota with a 20,000 lb action level. (quota based on MEI). 2023 harvest around 7,000 lb total.

2024 remains the same.

b. Tullibee and Burbot

TLC surplus production model shows population increase since about 2000. But gill nets show decreasing population size. The bottom line is that we are giving the population a chance to grow. Recent years we have managed TLC with no quota, but the state's bag limit reduced to 5 to reduce effort. 2024 – remain with no quota, future change may be dependent on harvest remaining low. Kelly suggested Mille Lacs TLC may be more able to withstand climate changes. Proposed genetic and temperature tolerance testing.

Burbot – no set quota. Tribal take is incidental, angling is catch-and-release. Continue with no targeted harvest and no quota.

11. 2024 Inland Waters (Information/Discussion)

a. Walleye harvestable surplus and threshold values

Done in advance, report in book.

12. 2024 Management and research activities (Discussion)

a. Invasive species update

i. Zebra mussel surveys – Zebra mussels down to about 400/sq ft for last 3 years.

ii. Zooplankton samples – data collected but backlog in sample processing.

iii. Eurasian water milfoil observations –

Heavy milfoil growth on Garrison reef for first time.

Contact Kevin Martini about how many permits are issued to control plants on Mille Lacs

iv. Rusty crayfish – a single rusty crayfish was captured during the 2023 fall survey. This is the first one sampled by MN DNR fisheries but not the first discovered at Mille Lacs. University of MN student Chris Rounds discovered one in August 2021 and reported it to MN DNR Ecological and Water Resources where it was confirmed by Gary Montz. Chris also collected samples for eDNR in 2022 where rusty crayfish DNA was discovered.

b. Large Lake Assessment work

Spring sampling – NOP trap netting will be conducted. Smallmouth bass electrofishing.

Zoops and water quality through the summer

Will discuss future of summer yellow perch sampling with forage GN.

Fall sampling in September, Forage nets, YOY walleye EF, standard nets.

Zebra mussel dives in early August.

eDNA work being done through U of M

c. GLIFWC Sampling

Spring and fall electrofishing

Acoustic data collection from receivers when it's nice out.

d. Modeling subcommittee assignments

Guiding principles for walleye harvest at different abundances
decision tree revisions, gn vs models or some combination, juvenile index
retrospective analysis of recent years
Study of recruitment. Look beyond just simple correlations.
Incorporating environmental variables??
Size related mortality of YOY over winter.

e. Research subcommittee

Exploring RAD framework and application to Mille Lacs. Hoping to develop strategies for ecosystem, with some attention to specific species (walleye). Missing someone to look at infrastructure (zoning, septic). Aiming for something to review in the summer.

Would like more tribal and local management participation, as well as identifying someone to work on land use and infrastructure.

f. Others

Levi (student of Lynn Waterhouse) is being funded partly by DNR. Both may be coming to July meeting to discuss projects.

Patrick and Brian will start making talking points before press release (early March)

13. Next meeting

a. Set date and location for summer meeting (Action)

July 9 at Mille Lacs