Notes

Minnesota 1837 Fisheries Committee
October 27, 2022, 10:00am
John A. Smith Memorial Building
(FDL Resource Management & Tribal Court Building)
28 University Road, Cloquet

1) Welcome and Introductions
   a) Welcomed Eric Torvinen, new FDL Biologist
2) Agenda approval
   a) approved
3) Harvest update
   a) State – handout

      Walleye harvest at the end of September was 15,165 lb (18.9% of quota). Pressure and kill have been well below means for last 10 years. State DNR is receiving some comments about low kill. More criticism expected at next MLFAC meeting. There was a discussion about metrics that could be used to forecast Walleye angling catch rates. Fall "bite" is often coarsely related to early winter catch rates and late winter "bite" is often coarsely related to May catch rates. However, accurately predicting kill is difficult and influenced by many factors (water temperature, effort).

      Yellow Perch harvest at the end of September was 1,155 lbs. Perch harvest occurs almost entirely in winter. There was some discussion about whether forage nets can measure YOY perch well enough to predict Walleye catch rates. Keith Reeves' forage net study indicated that 1/4" and 3/8" mesh were needed to sample YOY Perch. These mesh sizes were added to the nets in 2012. Currently the time series and range of Perch year classes is not adequate to determine if a reliable relationship exists.

   b) Bands - handout

      Walleye and Northern Pike harvest through October 25 was 48,809 lb and 3,412 lb, respectively. The State asked if Walleye CPE for Tribal gillnets was trending back up. The Bands thought spring gill net CPE did go back up. The State requested information on total tribal effort and on the ratio of nets to spearing. The Bands said they would summarize this information for January meeting.

4) Fall Assessment: Preliminary Results for Walleye

a) State GN/EF/Forage results - handout

The State provided a summary of the Walleye catch from the 52 gillnet assessment. Mature walleye biomass (SSB) increased to 22.5 lb/net in 2022 (figure 1). Catches in 2021 were lower than expected and may have been due to low catchability. This was supported by year class strength model that accounts for variability in catchability and indicated that catchability was low in 2021 (figure 19). Overall, SSB has been relatively stable over the past 5 years with 95% confidence intervals from the bootstrapped catch data overlapping (figure 3). The catch of immature Walleye was about the same by weight as the last five years but the number of immature fish that were caught per net was higher (figures 5 and 6). There was a discussion about updating the benchmark period which is currently the years 2002-2013 or adding a second benchmark to reflect more recent information. No decision was made. Walleye length-frequencies show potential for a strong 2020 walleye year class (figures 8-10). Figure 13. Relative condition for all sizes of Walleye improved. Improvement in condition increased with size (figures 13). As expected, the 2013 and 2017 year classes still dominate mature fish stock (figure 16). The current length distribution lacks large fish because few fish are older than 9, the year classes making up ages 10-13 were weak year classes, and growth rates have been generally low in recent years. Preliminary analyses suggest that growth may have improved this year.

The year class strength index based on catch at ages 1-3 in the inshore gillnets, suggest that recruitment was okay in 2020 and 2021 (figure 18).

The State's fall electrofishing was cut short by mechanical issues, so only one run was completed at Wealthwood. St Albans and Hennepin both had two runs. The Walleye CPE for completed stations showed average YOY and low numbers of age 1 (figure 21).

The inshore and offshore gillnet CPE for Yellow perch increased for the second consecutive year (figure 20). The CPE of Perch > 9 inches also increased in 2022. Many of these 9-inch perch were age 2, indicating fast growth as it typically took 4 or 5 years to reach this size.

The CPE of age-0 and age-1 Yellow Perch in the forage nets were both above their respective time series medians (figure 22). The CPE of age-0 and age-1 Cisco in the forage nets was very low.

b) Bands EF results - handout

The Bands were able to complete electrofishing in most shoreline segments. The CPE of YOY Walleye was 62.4/mile. This was more than last year. Few age 1 Walleye were encountered.

There was a discussion about comparing the length distribution of YOY Walleye from the fall EF survey to the length distribution of age-1 Walleye the following spring. This could provide information about over winter mortality of age-0 Walleye and potentially identify a minimum size needed for overwinter survival. This information may be helpful in predicting year class strength from age-0 Walleye catch data.

5) Initial discussions on status of the 2023 Walleye fishery
   a) 52 net summary (see #4 for more details)
      i) Spawning Stock – looks good, above 20 lb/net
      ii) Condition - looks better, all sizes improved
      iii) Incoming Recruitment – looks good, CPE of fish <14 inches is highest since 2014 for males and highest since 2015 for females

6) Mille Lacs Harvest Policy
   a) Yellow Perch quota

At the July FTC meeting the Research subcommittee (RSC) presented findings on potential ways to estimate yellow perch safe harvest levels. Harvest levels ranged from 13,000 lb to 76,000 lb. The original Yellow Perch quota was based on the State's long-term Yellow Perch harvest prior to 1998. According to Protocol 5A, a safe harvest level for Yellow Perch shall be established, agreed upon, and imposed if the Bands authorized a commercial fishery for Yellow Perch. The RSC's summary report also concluded that harvest was not driving down perch abundance. Recruitment of Yellow Perch declined

and then the effects of low recruitment cascaded through population eventually resulting in reduced abundance of larger perch.

This year's GN data suggests that yellow perch may be increasing. There was a discussion about the need for a quota, safe harvest level or other alternatives. Consensus preference was to have the RSC examine various population metrics and determine if there are metrics that could be used as red flags for the perch population. These metrics could be monitored, and the perch fishery managed without a quota. Additionally, a harvest level could be set to trigger a closer look at the perch population if harvest levels exceeded this threshold. No harvest level or trigger was set.

Possible metrics could include size structure, growth index, juvenile abundance, other BPIs (Biological Performance Indicators) similar to walleye BPIs. It was suggested that the RSC look at how overfishing affected perch metrics in Winnibigoshish.

7) Overage Plan discussion – PowerPoint

Tom Jones gave described the rational for why the State wants additional flexibility in how it manages the State's Walleye fishery. This included a conceptual description of why the lack of an overage plan and the 60-day notice of regulation change creates a situation that can result in missed harvest opportunities for the State. This is problematic for the State as one of the State's management goals is to allow harvest opportunity when possible. The lack of overage requires the State to assume worst case assumptions and to begin the season with very conservative regulations. The 60-day notice then prevents the State from easily adapting its management to observed conditions. The presentation was followed by a discussion about different options to make it easier for State adjust regulations for later in the season based on observed conditions in the fishery. The group discussed shorter notification times compared to use of triggers. The group agreed that the State should develop potential plans for adjusting State regulations midseason. These plans should be shared prior to the January FTC meeting so that they can be fully discussed in January. The State and Bands will check with their lawyers to make sure the FTC is not acting outside of its authority.

8) RAD discussion follow-up

The FTC revisited the Resist, Accept and Direct (RAD) discussion that took place that the July FTC meeting. Most members agreed that RAD presentation was interesting and worthwhile exercise. There was a discussion about trying to apply it to Mille Lacs on an ecosystem level rather than species level. RSC will develop some potential management options for different ecosystem trajectories (resist, accept, and direct) and then bring them back to FTC for review and discussion. The group agreed that some outside people may be brought in for development of these ideas.

9) Other updates

a) Mille Lacs Walleye population estimate

The State described assistance needed from the Bands.

- GLIFWC has trap nets that could potentially be used for northern pike tagging. Mesh size is 1 inch (State mesh size is 3/4 inch).
- Bands think they can contribute four electrofishing crews for walleye tagging, 1 each from GLIFWC, FDL, Mille Lacs, USFWS.
- GLIFWC will be better able to help with recapture as season progresses.
- State needs to look into varying mesh sizes and determine if that interferes with estimating sex ratios of untagged walleye in the recapture phase.

b) State's winter Walleye regulation

- Proposing same regulation as last winter: bag limit of 1 fish, either within 21–23-inch harvest slot or over 28 inch

c) Results of 2022 Zebra Mussel survey - handout

Mussels have declined to about one-third of the 2012 maximum. A question was raised about how far other populations have declined after peak population density. Referred interested parties to Strayer et al. 2019 (in Ecosphere). Bands requested that water clarity data be included in State book in January.

d) Other

10) Identify steps to prepare for January meeting

- First data exchange Nov 1. This includes State fall EF data for mixed model.
- During the off season, the Modeling Subcommittee will evaluate if it is necessary to re-run the stock assessment models when a small amount of fall harvest activity takes place after the first data exchange. This evaluation will include identifying criteria that could potentially be used to make this determination.
- Nov 29 final data exchange
- Dec 16 first model exchange.
- Jan 11 final model exchange (week before meeting).
- January 18 and 19 – FTC meeting, likely Brainerd Arboretum.

11) Open discussion

12) Adjourn

Attendance

Jon Gilbert
Reggie DeFoe
Joe Dan Rose
Mark Luehring
Adam Ray
Aaron Schultz
Eric Torvinen
Dan Schermerhorn
Patrick Schmalz
Tom Jones
Eric Jensen
Tom Heinrich
Brian Nerbonne
Missy Treml
Brad Parsons
Carl Klimah
Conrad St John
Susan Klapel
Kia Hmielewski
John Hoenig